RELATIONSHIPS AMONG
MEASURES OF
WRITER'S BLOCK,
WRITING ANXIETY,
AND PROCRASTINATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of the Ohio State University

By

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* * * * *

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To All Who Seek
To Communicate
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CHAPTER I
INTRODUCTION

The act of writing often has involved difficulty for many persons. For some, such difficulty becomes a major obstacle in the completion of a writing project, whether this project involves writing a research grant, dissertation proposal, or even a letter to a friend (Mack & Skjei, 1979). If the writing project is one which presents difficulty for an individual, then that person may choose to avoid beginning the project at all. For whatever reason, the number of persons who avoid or who are unable to finish a writing project is a large one. For example, in surveying 342 university undergraduates, Solomon & Rothblum (1984) found that 46% of their sample nearly always or always procrastinated when writing a term paper, even though 65% of the sample reported that they wanted or definitely wanted to reduce such writing procrastination.

Such problems with writing projects seem to persist in graduate school as well. In attempting to estimate the number of persons who are unable to finish writing their doctoral dissertations, persons categorized as "ABDs" (All But the Dissertation), Sternberg (1981) stated that, although approximately 20,000 doctorates are awarded each
year, 50,000 ABDs are generated each year as well. Since these students may very well finish their dissertations within a year or two, the absolute difference between these two figures would not be an accurate measure of yearly ABDs. However, as Sternberg indicated, the number of ABDs is a large one in any given year. It seems reasonable to say that writer’s block could play a role in preventing some of these students from achieving their doctorates. Writer’s block also may interfere with the writing projects of university faculty members, many of whom must face the perennial "publish or perish" imperative (Boice, 1982). Regardless of status as a student or professional, writer’s block may prevent many persons from finishing writing projects.

But what exactly is writer’s block? What does it represent? And how can it be differentiated from other constructs such as procrastination or writing apprehension? The answers to these questions are as yet unclear. Most theorists use the terms "writer’s block," "writing apprehension," "writing anxiety," and "writing procrastination" synonymously (e.g., Bloom, 1985; Shilling, 1983). However, Rose (1984, 1985) pointed out that some of these terms may represent very different constructs: Writer’s block may be differentiated from writing anxiety/apprehension, as well as from procrastination in general. Rose defined writer’s block as: "an inability to begin or continue writing for reasons other than a lack of basic skill or commitment" (1984, p. 3). Indeed, Rose noted that those who suffer the most severe writing blocks are often among the most
skilled writers who are strongly committed to their writing projects. It may take a long period of time before these skilled writers are able to produce a written manuscript.

In contrast, Daly (1978) defined writing apprehension (also called "writing anxiety" by other researchers) as a construct which "is concerned with a person's general tendencies to approach or avoid situations perceived to demand writing accompanied by some amount of evaluation" (p. 10). Since highly apprehensive individuals allegedly fear negative evaluation, they may avoid writing situations, and, if placed in a writing situation, "will experience more than normal amounts of anxiety" (Daly, 1978, p. 10). Furthermore, according to Daly, evidence from research suggests that anxiety due to fear of negative evaluation may be reality-based for the individual who is apprehensive about writing: Such persons tend to score lower than non-apprehensive writers on comprehensive writing skills tests (Daly, 1978). Furthermore, the highly apprehensive writer is more likely to avoid certain advanced courses (Daly & M.D. Miller, 1975b) and certain college majors (Daly & Shamo, 1978) that require more writing. Daly has inferred that it is a lack of basic writing skills which produces such anxiety and avoidance. Thus, while persons with writer's block are inferred to be among the most skilled and highly committed writers, persons with writing apprehension or anxiety may be among the less skilled and less committed writers, and therefore fear negative evaluation of their writing.
Unlike persons with writing apprehension, persons suffering from writer's block do not necessarily avoid writing situations for fear of being negatively evaluated. Rather, writing-blocked individuals are those who, according to Rose (1984), actually do sit down to write, but are unable to do so for a variety of reasons. Unlike procrastination, defined by Solomon and Rothblum (1984) as "the act of needlessly delaying tasks to the point of experiencing subjective discomfort" (p. 503), a writing block implies an attempt to begin the task rather than delaying the attempt. According to Rose (1984):

Blocking is not simply measured by the passage of time . . . but by the passage of time with limited productive involvement in the writing task . . . . Blocking can be manifested in a variety of ways: some high-blockers produce only a few sentences; others produce many more, but these sentences will be false starts, repetitions, blind alleys, or disconnected fragments of discourse; still others produce a certain amount of satisfactory prose only to stop in mid-essay. (p. 3)

Rose (1984) then pointed out that, although writing apprehension may be "a possible cause of or reaction to blocking . . . blocking and apprehensiveness (and low-blocking and nonapprehensiveness) are not synonymous, not necessarily coexistent, and not necessarily causally linked" (p. 4).

Although the constructs of writer's block, writing apprehension, and procrastination have been differentiated theoretically, no one as yet has attempted to differentiate them empirically: This was the
major purpose of the present investigation. It may be important for researchers and practitioners to know whether individuals are suffering from writer’s block, writing anxiety, or procrastination. Clients may state that they have "writer’s block," a concept which implies unsuccessful but deliberate attempts at writing, according to Rose (1984, 1985). This is very different from the lack of motivation implied by procrastination, which involves an intentional delay in performing tasks of many types (Solomon & Rothblum, 1984). On the other hand, writing anxiety entails an absolute avoidance—rather than mere delay—in approaching writing tasks (Daly, 1978). It is important for therapists to know whether clients are approaching or avoiding the writing process, and whether this is a behavior which applies only to the writing tasks or to other types of tasks as well.

For example, if a person is experiencing only writer’s block, and not writing apprehension or procrastination, then the psychologist might encourage the client to engage in "nonstop writing," a technique which entails writing about one’s feelings regarding the writing process or regarding the writing project (Block, 1984; Mack & Skjei, 1979). This technique is often sufficient impetus to engage the client in the writing process by removing emotional blocks so that the client may begin to write about his or her chosen topic (Block, 1984; Mack & Skjei, 1979).

However, suppose this writer is prone to writing apprehension. If so, then the therapist may wish to focus on decreasing the client’s level of anxiety via guided imagery (Shilling, 1983), progressive
muscle relaxation (Bernstein & Borkovec, 1973; Jacobson, 1938; Wolpe, 1958), systematic desensitization (Wolpe, 1958), or other forms of anxiety management training (Richardson, 1976).

However, if the client is prone to procrastination, then perhaps the therapist would focus on time management and contingency management (Rimm & Masters, 1979). Contingency management, which involves the setting of sub-goals and self-administration of rewards or punishments in response to the level of goal attainment, has been considered the treatment of choice for so-called writer's block by many researchers (Boice, 1982, 1983a, 1983b; Harris, 1974; Nurnberger & Zimmerman, 1970; Passman, 1976; Pear, 1977; Rosenberg & Lah, 1982). However, perhaps those persons who have used contingency management successfully have been in actuality procrastinators rather than writing-blocked persons. And perhaps those persons for whom contingency management has appeared to be unsuccessful were in actuality suffering from writer's block or writing apprehension, and may have needed different treatments accordingly.

Furthermore, suppose that a client suffers from more than one of these problems. For example, if a client suffers from procrastination as well as writer's block, then the therapist might be confused as to how to begin treatment: the client delays in starting the writing project, and then becomes blocked once he or she actually attempts to write. Perhaps the client procrastinates because he or she fears the return of previous experiences with writing blocks. Or perhaps the client becomes blocked because he or she feels pressured while being
forced to produce written copy under strict time limits after having procrastinated for so long. Since persons who procrastinate a great deal have been found to report higher levels of test anxiety, state anxiety, and anxiety-related physical symptoms (e.g., hand tremors; Rothblum, Solomon, & Murakami, 1986), and since anxiety may block cognitive processing (Schwarzer, 1986)—an essential component of the writing process (Rose, 1984)—perhaps it is anxiety which would become the focus of treatment for this particular client.

However, suppose a client is found to suffer from writing anxiety and procrastination: This individual not only avoids writing due to fear of negative evaluation as a result of writing skill deficits (Daly, 1978), but this person tends to delay performing many other types of tasks as well. Certainly in this case the therapist again might want to employ some therapeutic techniques for the reduction of anxiety, but other issues might need treatment as well. Since procrastination has often been attributed to the passive-aggressive expression of anger at authority (Ellis & Knaus, 1977; Solomon & Rothblum, 1984), perhaps some psychotherapy would be in order to assist this client in catharting such anger toward parents, or toward former language instructors who had sharply criticized past writing endeavors. Furthermore, if Daly (1978) is correct in his hypothesis that writing anxiety is due to skill deficits, then perhaps the therapist might wish to assist this same client in locating a tutor to help polish the client's writing skills.
But how can the therapist know whether the client suffers from writer's block, writing anxiety, or procrastination in order to determine a treatment plan? Aside from the fact that an entire session, or even several sessions, might be taken up by the therapist's attempts to answer this question, many clients may be unwilling to admit that they have actively avoided the writing process (writing anxiety) or tend to delay performing many tasks (procrastination), for fear that the therapist will view them as being lazy and ineffectual. Ideally, it would be more beneficial if the therapist had an instrument which could validly and reliably measure the levels of writer's block, writing anxiety, and procrastination in any given client.

Currently, there are separate measures for these three constructs. To date, there is only one scale which allegedly measure writer's block: the Writer's Block Questionnaire (WBQ; Rose, 1984). There are many scales which purport to measure writing anxiety, but the most often used scale is the Writing Apprehension Scale (WAS; Daly & M.D. Miller, 1975a). And the Procrastination Assessment Scale—Students (PASS; Solomon & Rothblum, 1984) has been used to assess academic procrastination. However, upon closer scrutiny, these questionnaires contain some items which appear to be similar. For example, both the WBQ and the WAS contain items related to the enjoyment of the writing process and to fear of others' evaluations of written products. Even more interesting is the fact that the WBQ contains five subscales, two of which may be measuring items related to writing anxiety (the Attitudes Subscale) and writing procrastination (The Lateness
Subscale). If so, then perhaps the therapist who would have administered the WBQ, WAS, and PASS—which might lead to mixed results, since these questionnaires may not be pure measures of these constructs—would be better off to administer only the WBQ, and to focus on the client's scores among the different subscales, using only the Blocking, Premature Editing, and Strategies for Complexity Subscales to assess writer's block per se, and using the Attitudes and Lateness Subscales to assess writing anxiety and procrastination, respectively.

If the WBQ is tapping items related to writing anxiety and procrastination as well as items related to writer's block, then researchers must be made aware that studies which purport to measure writer's block may contain invalid results. However, unlike the growing body of correlational research which has accumulated on the topic of writing anxiety (Daly & Wilson, 1983), no systematic empirical investigation of the potential correlates of writer's block has been initiated (Rose, 1984). In considering the possibility that perhaps there are individual differences among persons suffering from writer's block, this lack of correlational research is surprising. If researchers were to explore the potential for individual differences among writing-blocked and writing-anxious individuals, then perhaps the etiology of these problems could be discovered and could lead to better treatment strategies.

One personality construct which might help to explain individual differences in writer's block and in writing anxiety is self-monitoring
style (Snyder, 1972, 1974, 1979). Self-monitoring style implies a sense of impression management. According to Snyder (1979), self-monitoring is a social psychological construct which reflects "the ability to manage or control our verbal and nonverbal self-presentation to foster desired images in the eyes of our beholders" (p. 88).

Essentially, persons who are high self-monitors are more likely to change their opinions and self-expressions to meet the requirements of a given social situation, while persons who are low self-monitors are more likely to maintain their own opinions and self-expressions, regardless of the requirements of a given social situation (Snyder, 1979). As Snyder (1974) explained, "In the domain of expressive behavior, individual differences in self-monitoring are a moderating variable which identifies [sic] individuals who demonstrate or fail to demonstrate consistency across channels of expression and between situations differing in monitoring properties" (p. 528).

Surely writing can be viewed as a form of "expressive" behavior: As Rose (1984) stated, "Discourse is a social act" (p. 69). Discourse necessarily entails an audience of some sort. If one is a high self-monitor, then tailoring one's written expressions in order to please an audience would seem to be a relatively natural task, since high self-monitors are concerned with being socially appropriate. However, if one is a low self-monitor, then tailoring one's written expressions in order to please an audience might seem to be an impossible task, since low self-monitors are more concerned with maintaining the integrity of their own beliefs than with being socially
appropriate (Snyder, 1979). Accordingly, one might expect such low self-monitors to exhibit a higher degree of writer's block than would high self-monitors.

Such a trend may have been the case with some of the writers in Rose's (1984) study. As part of his preliminary investigation during the development of the Writer's Block Questionnaire, Rose asked ten subjects to write an essay during a 60-minute period. Students were asked to read a three-page case history of a 32-year-old man visiting a counseling center due to depression. The students then were asked to interpret this client's situation in light of a passage from Karl Jaspers' *Man in the Modern Age*. The passage involved alienation theory, in which malaise is attributed to meaningless work.

It is interesting to note the differences between low and high blockers in terms of their self-reported facility with which they were able to agree with Jaspers. Rose discussed the case of Liz, a person with very severe writer's block, who, after 60 minutes, was able to produce only a topic sentence and part of another, for a total of 45 words. He said that her writing became blocked because she was unable to agree with Karl Jaspers' point of view, and could not reconcile his opinion with her own beliefs.

However, in comparing this high-blocker's response to the assignment to a low-blocker's response, one may speculate that this is not just a rhetorical problem. Liz appeared to be a low self-monitor: It was perhaps more important for her to maintain the integrity of her beliefs than to agree with Jaspers. In contrast, Rose (1984) described
the written response of Glenn, a low-blocker who appeared to be a high self-monitor. From Rose's description, it appeared that Glenn was not as preoccupied with the integrity of his own opinion as he was with pleasing his reading audience, and Glenn apparently had no problem agreeing with Jaspers. Although Glenn only wrote during 36 of the 60 minutes allotted, he was able to produce a substantial essay of five paragraphs, totaling 559 words. During the subsequent task recall interview, Glenn stated, "I guess I think a lot about the person who is going to be reading this paper" (p. 67). And, according to Rose: his awareness of audience served to guide rather than block the flow of his prose (p. 67). Glenn thus appears to have been a high self-monitor, since he was so concerned with pleasing his audience. In contrast were some of the high-blockers in Rose's (1984) study, who expressed deep personal attachments to the writing process as it enabled them to express their opinions. Indeed, according to Rose (1984), "As writers develop they can block more. . . . the more a student gets involved in writing, the more important it is, the more it reflects her intelligence and values. With this involvement comes a potential increase in anxiety" (p. 104). (Again, it must be noted that Rose, like many other theorists, has equated the term "anxiety" with writer's block.)

Thus, it appears that the higher involvement in writing, the more likely there will be difficulty in completing such written work. Accordingly, one might expect that low self-monitors, who by definition would be more self-involved in their written work as it expresses their
beliefs, might experience higher levels of writer's block, especially if the writing task required them to alter their beliefs in some way. On the other hand, high self-monitors, who by definition would be more concerned with pleasing their readers, might experience lower levels of writer's block, even if the writing task required them to alter their beliefs in some way.

However, one might speculate that just the opposite relationship exists between self-monitoring style and writing anxiety. If, as Daly (1978) suggests, writing anxiety is due to fear of negative evaluation, then one might expect to see higher levels of writing anxiety among high self-monitors, who are, by definition, very concerned with the way in which others will perceive and evaluate them. Similarly, one might expect to see much lower levels of writing anxiety among low self-monitors, who, by definition, are much less concerned with how others will perceive and evaluate them (Snyder, 1979). The present investigation was designed to explore this potential relationship of self-monitoring style with writer's block and with writing anxiety in a college population.

Along with self-monitoring style, two other variables which may mediate levels of writer's block and writing anxiety might be the quality of written work and the writer's gender. While Rose (1984, 1985) has suggested that writer's block is more common among highly skilled writers, Daly (1978) has demonstrated that writing anxiety is higher among persons with deficits in their writing skills. And, since women's writing skills tend to be rated significantly higher than men's
writing skills (Baker, 1954; Martin, 1972; Meier, McCarthy, & Schmeck, 1984; Stalnaker, 1941; Woodward & Phillips, 1967), it is not surprising that Daly and M.D. Miller (1975b) found significantly higher levels of writing apprehension among men as compared to women. Conversely, since Rose (1984, 1985) has suggested that writer’s block is more common among more skilled writers, one might expect that women would experience higher levels of writer’s block than men. If these suppositions are valid, then one might expect higher levels of writer’s block among low self-monitors, highly skilled writers, and women. Conversely, one might expect higher levels of writing anxiety among high self-monitors, persons with writing skill deficits, and men.

In summary then, many people cannot write when they need to do so. Some theorists have speculated that the reasons for this can be accounted for in one of three ways: writer’s block, writing anxiety, or procrastination. There is some research that suggests that these may be separate constructs, but this research is sporadic, occasionally anomalous, and flawed. Therefore, the question of whether these are three separate constructs remains unanswered. Since the treatment plan and prognosis might be different, it is important to determine whether these three constructs are indeed orthogonal.
CHAPTER II:

REVIEW OF SELECTED LITERATURE

Introduction

The problem of writer's block is one which is not easily explicated. Although Rose (1984) defined writer's block as "an inability to begin or continue writing for reasons other than a lack of basic skill or commitment" (p. 3), many others have confounded writer's block with writing anxiety, writing apprehension, or writing procrastination (e.g., Bloom, 1985; Daly, 1985; Mack & Skjei, 1979; Selfe, 1985; Shilling, 1983). The organization of this chapter will focus on differentiating these constructs. After a brief discussion of the writing process in general, the focus of discussion will turn to procrastination, then to writing anxiety, then to writer's block, and finally to self-monitoring style and its relationship to writing apprehension and to writer's block.

The Writing Process

While the problem of writer's block has been examined only relatively recently (Boice, 1985), the process of writing has been studied extensively (White, 1985). There are numerous factors which determine a successful writing experience: Bloom (1985) cited seven such factors, five internal features of the writer and two external
contexts which affect the writer. Among the internal features, Bloom mentioned intellectual, artistic, temperamental, biological, and emotional factors involved in the writing process. Intellectual factors consist of the writer's knowledge of the subject matter and of writing methods and strategies (e.g., note-taking), as well as vocabulary and writing skills. Artistic factors refer to the writer's level of creativity, insightfulness, independence, and willingness to break rules and take other risks. Temperamental factors include the writer's levels of confidence and motivation to set and achieve goals. Biological factors include the writer's level of energy and state of health, as well as an awareness of biorhythmic patterns to enhance creative drives. Bloom's discussion of emotional factors focused on the writer's feelings about and attitudes toward the writing process, some of which may stem from negative writing experiences in the past.

Bloom also discussed two external factors which may affect a writer's productivity, the social context and academic contexts. The social context of a writer may include the presence or absence of familial and social support. For example, Bloom cited the case of Alice James, who, unlike her famous brothers William and Henry, did not enjoy the familial and social support which were necessary for her to become a successful writer. Furthermore, Bloom also focused upon the academic contexts in which many writers may succeed or fail: Such contexts have certain norms and expectations regarding the style and content of one's writing, and these expectations may guide or inhibit the process of writing.
Given Bloom's hypothetical conditions for successful writing, one might wonder what happens to the writer who comes to the blank page fully equipped with these conditions. Aside from the fact that certain personal problems may interfere with the writing process, e.g., the break-up of a relationship (Larson, 1985), one might consider the fully equipped writer as ready to begin the task. But, according to Murray (1985), this is not necessarily the case: Writers need an "essential delay," a period of incubation before they can begin to create (p. 226). During this period, writers need to have five elements prior to beginning the actual writing process: information, insight, order, need, and voice. Writers not only need a large array of information about their topics, but they also need to experience insight, in which they can form a single vision which encompasses the breadth of their information. Next, they need order, a sense of how to organize such information along the continuum of an insightful vision. Writers also must experience a two-fold sense of need: an internal need to speak as a writer, and a perceived need of readers who want to listen. Finally, Murray suggests that writers need to find the voice that will deliver the paper most effectively. Until these five conditions are met, according to Murray, writers are experiencing what he calls an "essential delay" rather than writer's block: It is only after these conditions are met that the stalled writer may be said to experience writer's block.

But, again, what exactly is writer's block? In the search for an answer to this and other questions about the writing process,
researchers have studied writing in three distinct perspectives: writing as text, writing as a mental process, and writing as a communicative act (White, 1985). In studying writing as text, researchers have focused on writing as a product: It is assumed that the writer's skill is revealed through a close scrutiny of text features such as syntax, diction, and punctuation. There have been three major approaches to such text analysis: Hunt's (1965) concept of the T-unit, the use of error analysis, and such generative approaches as that of Christensen (1967).

Hunt (1965) defined a T-unit as a single main clause along with other subordinate clauses or phrases — in other words, a grammatical unit which can be terminated with a period. The writing of children tends to consist of many short T-units, while older, more sophisticated writers tend to use longer and more complex T-units, reflecting a higher level of syntactic maturity. Hunt's concept of the T-unit generated the teaching technique of sentence-combining to enhance students' written skills, e.g., students might combine the two sentences "I like my dog" and "My dog is black" into the more sophisticated sentence, "I like my black dog." However, other writing theorists have stated that such techniques are too artificial, and may even hinder a student's creativity (White, 1985).

A similar fate has befallen the second major type of text-focused writing research: error analysis. Essentially, such an approach assumes that the fewer the errors (defined in a variety of different ways by different researchers) per sentence or per word count, the
better the writing quality of a paper. However, this approach is less suited to more sophisticated writings than it is to the writings of elementary school children. Furthermore, the inherent emphasis on counting errors in such a textual analysis has been cited by some theorists as partly to blame for many students' inability to write as effectively as they might (Rose, 1984; White, 1985). Since quality is defined as error avoidance, creativity once again may be hindered.

A third type of text analysis is represented by Christensen's (1967) generative approach to assessing writing. Instead of focusing on sentence length or number of errors, Christensen's approach assesses levels of abstraction: The emergence, development, and focus of ideas are examined in order to determine the quality of a text. Other theorists and researchers have developed similar approaches to examining the quality of written works (White, 1985).

While these three approaches have focused on writing as a product, other approaches have focused on writing as a process. Accordingly, such research has emphasized the covert mental processes and their behavioral indicators which occur during the writing process (White, 1985). Many researchers have asked writers to speak aloud into microphones during the writing process, while others have used time-lapse photography or have asked writers to use a special stylus to record hesitations, stops, and starts during the writing process (Emig, 1971; Flower & Hayes, 1980, 1981; Harris, 1985; Hayes & Flower, 1978, 1979; Rose, 1984). Such techniques are intended to explore the cognitive processing which writers use when creating their texts.
Since many believe that such recording techniques are intrusive to the writing process, some researchers prefer to use a stimulated recall approach, in which a writer is videotaped and queried immediately after finishing the writing task (Rose, 1984).

Still another approach to the analysis of writing involves a view of writing as a social, communicative act. Attention is given to the social context in which writing occurs and to the communication of intended meaning to the reader. Most research of this type is done in the field rather than in the laboratory, so that writers are observed in their natural settings (White, 1985). The emphasis in such research is more on the communicative exchange between reader and writer, rather than on covert cognitive processing or on the text per se. For example, in one field study, a student who wrote his school assignments in dull, flat prose was also discovered writing witty and stylish essays of very high quality for a close friend (Britton, Burgess, Martin, McLeod, & Rosen, 1975). Thus, the emphasis in such a communication-based analysis is not on whether a piece of work is well-written or on whether a writer is "good" so much as on what the writer is saying to whom. In the example cited above, it was as if the writer, who may have felt restricted in his voice speaking to teachers, felt suddenly free, as if he could speak in his true voice to a trusted close friend.

It is this awareness of the writer’s audience which will receive more attention in the discussion of self-monitoring style later in this paper. As discussed earlier, self-monitoring style—the ability to manage one’s self-presentation to others—may influence a writer’s
ability to communicate. If a low self-monitoring writer feels free enough to express personal feelings and opinions openly, then such freedom would enhance rather than thwart the writer's ability to express ideas. However, if the writer is a low self-monitor who is writing to someone who will disagree with the writer's views, then perhaps blocking would be more likely to occur, since low self-monitors are more intent on expressing their personal opinions than on pleasing others (Snyder, 1979).

Such a theory may explain the results of some field researchers. For example, a group of students were asked to write interactive journals with their teachers, and the teachers refrained from negative comments and corrections, but instead wrote comments to indicate that they clearly understood the writer's viewpoint: Students' writings improved greatly (Staton, 1982). And according to White (1985), "This reader response, with its evidence of the degree of understanding the prose had won, also provided the student with a genuine and familiar audience and turned the journal writing from a merely private act into real communicative writing" (p. 183). Although surely a certain amount of praise and lack of negative evaluation may have assisted these writers in being successful, one may also wonder if such a writing environment encouraged success because it also allowed students to be low self-monitors who didn't fear the red pen of disagreement.

But whether or not self-monitoring style is a factor in the onset of writer's block, it is important first to understand just exactly what writer's block entails. In order to explicate this problem,
writer's block will first be conceptually differentiated from procrastination, and then from writing anxiety.

**Procrastination and Writing**

The problem of procrastination, defined by Solomon and Rothblum (1984) as "the act of needlessly delaying tasks to the point of experiencing subjective discomfort" (p. 503), is a pervasive problem which affects not only writing but other tasks as well. Ellis and Knaus (1977) estimated that 95% of college students procrastinate. And even though procrastination has negative effects on academic performance (Rothblum, Solomon, & Murakami, 1986; Semb, Glick & Spencer, 1979), the tendency to procrastinate increases the longer students are in college: first-year students procrastinate the least, while seniors procrastinate the most (Semb et al., 1979).

When assessing academic procrastination, most researchers have focused on measuring study habits (e.g., minutes spent studying) and self-paced instruction lessons completed in certain courses (e.g., Ziesat, Rosenthal, & White, 1978; Miller, Weaver, & Semb, 1974), rather than focusing on some of the underlying reasons for procrastination. However, anecdotal data and clinical observations suggest that procrastination may stem from irrational and perfectionistic thought patterns (Ellis & Knaus, 1977), or from fear of failure, fear of success, evaluation anxiety, rebellion against authority, separation or attachment issues, lack of assertion, or lack of decision-making skills (Burka & Yuen, 1983).
Solomon and Rothblum (1984) investigated some of the underlying reasons for procrastination. And, unlike the few other researchers who have used behavioral rather than mere self-report measures of procrastination (Blatt & Quinlan, 1967; Dossett, Latham, & Saari, 1980; Green, 1982), Solomon and Rothblum compared the results of such behavioral measures to those of self-report measures. After developing the Procrastination Assessment Scale-Students (PASS), Solomon and Rothblum administered it to 342 university students enrolled in an introductory psychology course, along with other self-report questionnaires on self-esteem, anxiety, study habits and punctuality, assertion, depression, and irrational cognitions. Subjects' responses to the procrastination measure were then correlated with these other measures as well as with a behavioral measure of procrastination, i.e., number of self-paced quizzes taken during the last third of the semester.

The results were varied, depending upon the type of procrastination. A closer look at the procrastination scale developed by Solomon and Rothblum reveals six possible areas of procrastination: when writing a term paper, studying for an exam, keeping up with weekly reading assignments, performing administrative tasks, attending meetings, and performing academic tasks in general. In terms of the frequency of procrastination, the results showed that 46% of the subjects reported procrastinating always or nearly always when writing a term paper, 27.6% when studying for exams, 30.1% when reading weekly assignments, 10.6% when performing administrative tasks, 23% when
attending meetings, and 10.2% when performing school activities in general. Furthermore, significant positive correlations were found between number of self-paced quizzes taken during the last third of the semester (the behavioral measure of procrastination) and self-reported procrastination when writing a term paper ($r = .24, p < .001$), when studying for exams ($r = .19, p < .01$), and when doing weekly readings ($r = .28, p < .0005$). Further support for the validity of the PASS was discovered when Rothblum, Solomon, & Murakami (1986) also found that PASS scores were positively correlated with the amount of delay in taking self-paced quizzes.

In perusing the results of these two studies, it becomes more apparent that procrastination may not represent a simple deficit in time management or study skills, as previous research has suggested (Miller et al., 1974; Ziesat et al., 1978). Rather, Solomon and Rothblum (1984) found that many of the other self-report measures correlated significantly with PASS scores: depression ($r = .44, p < .0005$), irrational cognitions ($r = .30, p < .0005$), self-esteem ($r = -23, p < .0005$), punctuality and organized study behavior ($r = -.24, p < .0005$), and anxiety ($r = .13, p < .05$).

Furthermore, Rothblum, Solomon, & Murakami (1986) found that high procrastinators reported higher levels of test anxiety, state anxiety, and anxiety-related physical symptoms (e.g., hand tremors) as compared to low procrastinators. These results suggest that procrastination problems are not exclusively due to deficits in time management or study skills.
Furthermore, in assessing subjects' reasons for procrastination on the PASS, Solomon and Rothblum (1984) found that a factor analysis revealed seven factors involved in procrastination when writing term papers. Factor 1, accounting for 49.4% of the variance, seemed to reflect a fear of failure, tapping items related to evaluation anxiety (anxiety about meeting others' expectations), perfectionism (concern about meeting one's own standards), and lack of self-confidence. Factor 2, accounting for 18% of the variance, was related to aversiveness of the task and laziness. Factors 3 through 7 (dependency, risk-taking, lack of assertion, rebellion against control, and difficulty making decisions) accounted for very little of the variance. It thus appears that the two major reasons for procrastination among these subjects were fear of failure and aversiveness of the task.

As will become apparent in the next section of this paper, these reasons for procrastination are similar to some of the reasons cited for writing anxiety by other researchers. This is not surprising, given the fact that many researchers have equated writing procrastination with writing anxiety and with writer's block, even though these may be separate issues which require different treatment strategies (Rose, 1985). Furthermore, since procrastination has been positively correlated with several types of anxiety, it may be that anxiety is a mediating construct which has confused many theorists as they have tried to describe the constructs of procrastination, writing apprehension, or writer's block.
It is important to remember some crucial differences among these constructs: While procrastination may occur across a variety of situations, not just in writing situations, writing anxiety and writer's block are obviously limited to writing situations. And while procrastination implies an intentional delay, caused by anything from laziness to fear of failure, writing anxiety implies an intentional avoidance of the writing process, due to anxiety allegedly stemming from fear of negative evaluation (Daly & M.D. Miller, 1975a). On the other hand, writer's block implies a deep commitment to and deliberate but unsuccessful attempts at the writing process (Rose, 1984). However, as stated earlier, many theorists and researchers have confused these three constructs with each other. Furthermore, as will become apparent in the next section of this paper, many theorists have used different definitions and different terms to describe the constructs of writing anxiety and writer's block.

**Writing Anxiety**

Although most theorists have used the terms "writing anxiety" and "writing apprehension" synonymously (as will the present author), many have defined writing anxiety or apprehension in a variety of different ways which seem to overlap with other theorists' definitions of procrastination and writer's block. For example, in describing "a highly apprehensive writer," Selje (1985) mentioned "avoidance behavior" and "ritualized procrastination" as part of the individual's writing apprehension (p. 85). Selje also discussed this same so-called apprehensive writer's propensity for pre-editing (i.e., revising a
section of a paper prior to the completion of an entire first draft),
even though pre-editing is believed to be a behavioral component of
writer's block rather than of writing apprehension (Rose, 1984).
Similarly, Bloom (1985) appeared to confound writing anxiety with
writer's block by defining "writing anxiety" as "a label for one or a
combination of feelings, beliefs, or behaviors that interfere with a
person's ability to start, work on, or finish a given writing task that
he or she is intellectually capable of doing" (p. 121). This
definition is quite similar to Rose's definition of writer's block:
"an inability to begin or continue writing for reasons other than a
lack of basic skill or commitment" (1984, p. 3). What is perhaps most
noticeable about Rose's definition is the emphasis on an adequate level
of writing skills as well as on commitment to the writing process.

In presenting what is perhaps the most conceptually clear
definition of writing anxiety offered thus far, Daly and M.D. Miller
(1975a) attempted to demonstrate that, unlike persons suffering from
writer's block, highly apprehensive writers may be less skilled and
less committed to the writing process. In coining the term "writing
apprehension," Daly and M.D. Miller (1975a) sought to avoid the
perennial definitional confusion surrounding the term "anxiety" since
the time of Freud (Daly, 1985). Writing apprehension has been defined
as "a general avoidance of writing and situations perceived by the
individual to potentially require some amount of writing accompanied by
the potential for evaluation of that writing" (Daly, 1979, p. 37).
Such a definition emphasizes the behavioral aspect of avoidance, which
is in contrast to Rose's (1984) emphasis on the writing-blocked individual's unsuccessful but deliberate attempts at writing. Daly and Miller's definition of writing apprehension also emphasizes a cognitive-affective component: fear of negative evaluation, which again may be differentiated from Rose's (1984) suggestion that the writing-blocked individual is often among the most highly skilled writers and thus is less likely to fear negative evaluation.

In attempting to validate their definition of writing apprehension, Daly, M.D. Miller, and others have conducted research to determine whether highly apprehensive writers in actuality do avoid writing situations and whether they are less skilled writers who therefore fear negative evaluation. The first step in exploring these issues involved the development of the Writing Apprehension Scale (Daly & M.D. Miller, 1975a). After much research in the field of oral communication apprehension (i.e., reticence or shyness; see Daly & McCroskey, 1984), Daly and M.D. Miller (1975a) developed the aforementioned scale to measure written communication apprehension. A factor analysis of 63 items revealed a predominant single factor of writing apprehension reflected in 26 of the items. These 26 items, all of which had loadings above .60, accounted for 46% of the variance and were selected for inclusion in the final scale. The scale is highly reliable: Internal consistency in the first reliability studies showed a split-half reliability of .94, and later research has produced similar values (Daly, 1985). Test-retest reliability after one week was .92 (Daly & M.D. Miller, 1975a). While other writing apprehension scales
have been developed more recently (Blake, 1976; Daly & T. Miller, 1983; Jeroski & Conroy, 1981; King, 1979; Kroll, 1979; Stacks, Boozer, & Lally, 1983; Thompson, 1978, 1979), none have validity checks as favorable as Daly and M.D. Miller's scale, and all correlate highly with Daly and M.D. Miller's scale (Daly, 1985; Daly & Wilson, 1983).

After developing the Writing Apprehension Scale, Daly and M.D. Miller sought to explore the two definitional components of writing apprehension: avoidance of writing situations and fear of negative evaluation, possibly due to a deficit in writing skills. In an attempt to validate this hypothesized deficit in highly apprehensive writers, Daly (1978) asked 3,602 undergraduate students enrolled in a mandatory composition course to complete the Writing Apprehension Scale as well as a writing competency questionnaire. Only the scores of high apprehensives (\( \bar{X} = 96.50, \text{SD} = 5.79 \)) and of low apprehensives (\( \bar{X} = 55.45, \text{SD} = 5.31 \)) were used in the primary tests of hypotheses. As predicted, the writing competency scores of highly apprehensive writers (\( \bar{X} = 43.87, \text{SD} = 7.98 \)) were significantly lower [\( F(1, 1002) = 61.54, p < .00001 \)] than the competency scores of low apprehensives (\( \bar{X} = 47.62, \text{SD} = 7.10 \)). In administering eight standardized measures of writing competency along with the Writing Apprehension Scale to 110 undergraduate students enrolled in a composition course, Faigley, Daly, and Witte (1981) found similar results. On every measure of writing competency, highly apprehensive writers scored lower than low apprehensives, and on six of these eight tests of writing skill, these differences were statistically
significant. However, the question still remains as to whether a
deficit in writing skills causes writing anxiety, or whether writing
anxiety impedes writing performance, or both.

Thus it appears that persons who are highly apprehensive about
writing may be less skilled in writing. According to Daly and M.D.
Miller (1975b), such a deficit in writing skills may lead to an
avoidance of writing situations due to a fear of negative evaluation.
Daly and M.D. Miller (1975b) hypothesized that such a fear may be based
on previous negative writing experiences and an expectation of failure.
After administering the Writing Apprehension Scale and a five-item
Likert-scaled questionnaire (one item dealt with previous success in
writing courses, two items dealt with willingness to take additional
writing courses, and two items dealt with success expectations) to 246
undergraduates enrolled in composition courses, Daly and M.D. Miller
were able to find statistically significant support for their
hypotheses. As compared to subjects who scored low in writing
apprehension, highly apprehensive writers reported less success in
previous writing courses, were less willing to enroll in other writing
courses, and had lower expectations of success in writing courses.
Thus it appears that, due to a lack of success expectations, highly
apprehensive writers may avoid writing situations. This avoidance may
be further reinforced by the fact that these writers may be avoiding a
situation which causes great anxiety and hence a threat to self-esteem
(Schwarzer, 1986).
The results of other studies support the hypothesis that highly apprehensive writers avoid writing situations and expect failure when writing. After administering the Writing Apprehension Scale to 181 undergraduates enrolled in a communication course, Daly and Shamo (1978) asked these subjects to rate 28 different academic majors in terms of perceived writing demands and desirability as a major. Subjects also were asked to report their actual choice of majors and the amount of writing required in their majors. The results indicated that, compared to low apprehensives, high apprehensives found courses with high writing requirements less desirable. Furthermore, highly apprehensive writers tended to choose majors which were perceived to have fewer writing requirements. In a similar study, Daly and Shamo (1976) found that highly apprehensive writers also tended to select occupations which were perceived to require less writing.

Other research results suggest that such an avoidance of writing could be triggered by an expectation of failure. Meier, McCarthy, and Schmeck (1984) performed a regression analysis on data collected from 121 undergraduates enrolled in composition courses. The results showed that high self-efficacy (i.e., the individual's belief that he or she can successfully perform a task; Bandura, 1977) was positively related to good writing performance, and self-efficacy was also a better predictor of writing performance than subjects' ACT scores. Furthermore, subjects with an internal locus of control (i.e., persons who attribute their failure or success to themselves rather than to chance or luck; Rotter, 1966) were more accurate predictors of their
own writing performance than subjects with an external locus of control. Other research also has indicated that successful writing may be related to higher self-efficacy (Freedman, 1983; McCarthy & Meier, 1983; Powell, 1984), as well as to an internal locus of control and to a lower level of state anxiety (McCarthy & Meier, 1983). Furthermore, although Richmond and Dickson-Markman (1985) found that the predictive power of the Writing Apprehension Scale remained after removing variance attributed to test anxiety, they suggested that perhaps the scale may be measuring self-confidence in writing ability more so than anxiety about writing. Taken as a whole, the aforementioned research indicates that successful writing may in part be determined by subjects' expectations of success as opposed to failure (unless, of course, subjects are plagued by a fear of success).

Some researchers have found gender and racial differences in levels of writing apprehension, self-efficacy, and locus of control regarding writing. Since women tend to be rated significantly higher in their composition writing than men (e.g., Baker, 1954; Martin, 1972; Stalnaker, 1941; Woodward & Phillips, 1967), Daly and M.D. Miller (1975b) hypothesized that men would have higher levels of writing apprehension due to a lack of positive reinforcement and expectations of failure. After administering the Writing Apprehension Scale to 246 undergraduates enrolled in composition courses, Daly and M.D. Miller found a statistically significant difference in levels of writing apprehension between the women and men in the study: Males had higher levels of writing apprehension than did the females in the study.
Similar results have been found by other researchers: Jeroski & Conry (1981) found that women had a more positive attitude than men did toward writing. Dickson (1978) found a similar statistically significant difference in a sample of 754 subjects, but the magnitude of the difference was small. On the other hand, Thompson (1981) found that, in a group of returning college students over the age of 22, the women in the group were significantly more anxious about writing than the men were.

In studying 121 undergraduates, Meier, McCarthy, and Schmeck (1984) found statistically significant gender and racial differences in writing performances: Women performed better than men, and nonblacks performed better than blacks. Similarly, McCarthy & Meier (1983) found that, in a sample of 121 undergraduates (37 black and 84 white students), even though black students' writing performance improved to the level of the white students' performance, black students' sense of self-efficacy regarding writing remained weaker than that of white students. Furthermore, black students tended to have a more external locus of control regarding their writing experiences than did white students. Given the possibility that many teachers may not be responsive to black students' conflicts between Black English and Standard English (Foss & Hakes, 1978) and the possibility that oral communication may be valued more highly than written communication among blacks (Baratz & Baratz, 1972), these results are not surprising.

Regardless of such gender or race differences in writing performance and in writing apprehension, it seems that writing
apprehension may be related to a variety of individual difference correlates. Daly and Wilson (1983) conducted a series of experiments to explore some potential correlates of writing apprehension. They found that, while general self-esteem was only slightly negatively correlated with writing apprehension, writing-specific self-esteem had a much stronger negative correlation with writing apprehension. Other personality measures attained only small correlations with writing apprehension in this study. Some were statistically significant but modest correlations with writing apprehension: oral communication apprehension ($r = .28$), receiver anxiety ($r = .19$), tolerance for ambiguity ($r = .21$), powerlessness ($r = -.10$), normlessness ($r = -.10$), isolation ($r = -.11$), and alienation ($r = -.12$). Still other personality measures attained statistically nonsignificant correlations with writing apprehension: trait anxiety ($r = .14$), locus of control ($r = .03$), dogmatism ($r = .12$), machiavellianism ($r = .05$), achievement need ($r = .08$), and social approval seeking ($r = -.04$). Similarly, Daly, Bell, and Korinek (1983) found a nonsignificant relationship between writing apprehension and social approval seeking ($r = -.03$). However, Stafford and Daly (1984) found small but statistically significant correlations between writing apprehension and public self-consciousness ($r = .13$), private self-consciousness ($r = -.15$), and social anxiety ($r = .17$).

Regardless of whether writing apprehension may be a cause or an effect of such correlates as self-esteem or social anxiety, researchers have found that writing apprehension does affect writing behavior.
Daly and M.D. Miller (1975c) found that highly apprehensive writers tended to write significantly less intense messages than did subjects with low levels of writing apprehension. (Language intensity was measured by noting the assigned intensity scale values of words chosen by subjects in completing blank spaces in a message concerning on-campus housing.) Furthermore, Daly (1977) found that subjects with high writing apprehension wrote messages which were significantly lower in quality (as measured by five 7-point items: high quality/low quality, poor/excellent, correct/incorrect, worthless/worthwhile, satisfactory/unsatisfactory) and which contained significantly fewer words than the messages written by low apprehensive writers. Book (1976) also found that highly apprehensive writers wrote fewer words which were of lower quality compared to less apprehensive writers' work. Given these results, one might wonder just how writing apprehension may contribute to writer's block, which by definition entails writing fewer words (Rose, 1984). Perhaps writing apprehension contributes to writer's block, or perhaps writing-blocked individuals become apprehensive since they anticipate future blocks. In either case, it is important first to define writer's block before one can explore its relationship to writing apprehension.

**Writer's Block**

Unlike the growing body of correlational research which has accumulated on the topic of writing apprehension, much of the work in the area of writer's block has been in the form of theoretical articles on the etiology of writer's block and clinical or experimental reports
on the treatment of writer's block: To date, no one has systematically explored the potential personality correlates of writer's block (Rose, 1984). Furthermore, there is very little agreement on the exact definition of writer's block (Boice, 1985). Rose's (1984) definition is probably the most succinct: "an inability to begin or continue writing for reasons other than a lack of basic skill or commitment" (p. 3). This definition stands in direct contrast to that of writing apprehension, which entails not only a lack of commitment to but an avoidance of the writing process, quite possibly because of a deficit in writing skills and a concomitant fear of negative evaluation.

Most of the early theorists in the area of writing blocks were psychoanalytic in their approach to etiology and treatment. Bergler (1950a, 1950b, 1955) was an early psychoanalyst to write extensively about writer's block. He believed that writers write out of a sense of guilt, and that persons with writer's block are basically oral regressives, i.e., persons who are still searching for the equivalent of a mother's breast. Goodman (1952), on the other hand, believed that writer's block, at least in playwrights, was due to the fact that dramatic characterizations may often be too similar to real life situations, and thus are too threatening. Similarly, Quaytman (1969) suggested that, unlike oral communication, written communication is irreversible: Once in print, written words are not as easily retracted as spoken words. However, Quaytman (1973) also stated that to avoid writing blocks, writers must be willing to step forward and present
their ideas as part of their identities: In a sense, they must "own" their writings.

Such ownership of their writings may not come easily to many blocked writers, according to many theorists. Writing from a transactional analysis perspective, Minninger (1977) stated that many individuals become blocked when writing because they fear what others will say about their written expressions: Past experiences with rigid schoolteachers and unnecessarily restrictive writing rules have induced such fears. Jones (1975), also a transactional analysis therapist, stated that internalized grandiose, perfectionistic standards may contribute to writer's block. Similarly, Green and Wason (1982) cited a lack of openness and trust as etiological factors which contribute to writer's block. Minninger (1977) as well as Green and Wason (1982) recommended that writing-blocked individuals allow themselves a time for free-flowing writing, with no criticism whatsoever (similar to the nonstop writing recommended by Block, 1984, and by Mack and Skjei, 1979), followed by a separate writing period in which some editorial self-criticism and revision is permitted. Jones (1975) recommended a more structured approach to counteract internalized perfectionistic standards: constructing a self-contract which clearly states the paper's subject, the total number of pages, the amount of pages to be written each day, and deadlines for the first and final draft.

Jones' (1975) approach is similar to the contingency management approach offered by many behavioral therapists. Essentially, contingency management entails setting up a series of goals with
self-administered rewards or punishments which are contingent upon meeting these goals: Many researchers have reported success with such treatments (Boice, 1982, 1983a, 1983b; Harris, 1974; Nurnberger & Zimmerman, 1970; Passman, 1976; Pear, 1977; Rosenberg & Lah, 1982). Boice (1983b) has even demonstrated empirically that a contingency management approach actually fostered a higher level of creativity than a more spontaneous approach to writing did.

In contrast to such a straightforward behavioral approach is a more cognitive approach to the treatment of writer's block, the paradoxical technique employed by Henning (1981): By paradoxically expressing doubt that the client could or even should write the paper at hand, the therapist motivated the client to prove the therapist wrong, and hence the client began writing again. Rose (1984) also suggested a more cognitive approach in treating writing blocks. By focusing on writers’ misleading cognitions about the writing process (i.e., rigid rules; misleading assumptions about composing; premature editing; deficiencies in appropriate planning or discourse strategies; use of conflicting rules, assumptions, strategies, or plans; and self-evaluation of writing with inappropriate or misunderstood criteria), persons treating writing-blocked individuals might assist these troubled writers in developing more accurate and realistic assumptions about writing.

However, even if such realistic assumptions are internalized by the writer, suppose the writer is still blocked. Part of the problem with Rose's approach might be that it focuses more directly on the writing process per se rather than on the client as a person. This critique
may be applied as well to the behavioral therapists' contingency management approach. And, while the other treatment approaches, whether they involve psychoanalysis, transactional analysis, or paradoxical techniques, all tend to focus more on the person rather than on the writing process, they still fail to consider closely the possibility of individual differences among writing-blocked individuals. Because so little research has been done on individual differences among persons with writer's block, such approaches may represent the best that psychology can offer at this point. However, the present study was designed to investigate one possible area of individual difference in writer's block, namely, self-monitoring style (Snyder, 1972, 1974, 1979), so that therapists may begin to become more aware of personality traits which might affect treatment strategies for certain writing-blocked individuals.

**Self-Monitoring Style, Writing Anxiety, and Writer's Block**

As defined by Snyder (1979), self-monitoring style reflects "the ability to manage or control our verbal and nonverbal self-presentation to foster desired images in the eyes of our beholders" (p. 88). Persons who are high self-monitors are more likely to be responsive to social cues and to alter their self-expressions to meet the requirements of different social situations, while persons who are low self-monitors are more likely to be guided by their inner feelings and opinions and to maintain their self-expressions, regardless of the social situation (Snyder, 1979). In order to conduct research on the construct of self-monitoring, Snyder (1972, 1974) developed the
Self-Monitoring Scale, a set of 25 true-false self-descriptive statements (see Appendix B).

Much work has been done attempting to demonstrate that this scale is reliable and valid. Snyder (1974) reported its test-retest reliability as .83 after a one-month interval. To demonstrate the scale's discriminant validity, Snyder (1974) compared subjects' responses on the Self-Monitoring Scale to their responses on the Marlowe-Crowne Social Desirability Scale (Crowne & Marlowe, 1964) and found a slight negative relationship ($r = -.19, df = 190, p < .01$). Thus, self-monitoring is not simply a matter of engaging in socially desirable behaviors. To further underscore the conceptual validity of the Self-Monitoring Scale, Snyder (1974) asked 16 members of a fraternity to fill out the Self-Monitoring Scale and to engage in sociometric ratings of each other. The results showed that those scoring high on the Self-Monitoring Scale were seen by their peers as persons who engage in effective impression management, while persons scoring low on the scale were seen as less effective in the management of their self-presentations. In two other samples, Snyder (1974) also found that, as hypothesized, dramatic actors scored significantly higher on the Self-Monitoring Scale than did non-actors, and that psychiatric patients scored significantly lower on the scale than did normals. Since actors are paid to alter their self-expressions, and since the problems of psychiatric patients are often due to their inability to alter their self-expressions to suit different social situations (Moos, 1968), Snyder took these results as further evidence
of the scale's construct validity. The results of other research also support the construct validity of self-monitoring (e.g., Lippa, 1976; Miller, deTurck, & Kalbfleisch, 1983; Karick, Soldow, & Geizer, 1976; Snyder, 1974; Snyder & Swann, 1976; Snyder & Tanke, 1976). To further demonstrate the discriminant and conceptual validity of the Self-Monitoring Scale, Snyder (1979) reported that self-monitoring is not correlated significantly with the following constructs: need for approval, Machiavellianism, locus of control, social chameleonic, field-dependence, hypnotic susceptibility, neuroticism, repression-sensitization, achievement anxiety, intelligence, academic achievement, vocational interests, and MMPI scales L, 4, 9, and 0.

However, in contrast to results obtained by other researchers, Snyder (1979) also reported that self-monitoring was not correlated significantly with the following constructs: extraversion, inner-directed versus other-directed social character, social anxiety, public self-consciousness, and private self-consciousness. On the other hand, various researchers have performed factor analyses on the Self-Monitoring Scale, and all of them have reported three or four separate dimensions in the scale, most of which correspond to the following three dimensions: Acting (ability in and enjoyment of acting, entertainment, and public speaking), Extraversion (level of outgoing behaviors), and Other-Directedness (willingness to change one's behavior to please other people) (Briggs, Cheek, & Buss, 1980; Edelmann, 1985; Furnham & Capon, 1983; Gabrenya & Arkin, 1960; Miell & Le Voi, 1984; Tobey & Tunnell, 1981). Even though other research
suggests that the Self-Monitoring Scale in fact may represent a unitary construct (Snyder & Simpson, 1984; Tomarelli & Shaffer, 1985), the possibility that Acting, Extraversion and Other-Directedness may be components of the scale's construct seems to cast doubt on Snyder's (1979) claim that self-monitoring is not correlated with extraversion or other-directed social character.

Furthermore, other researchers, unlike Snyder (1979), have found a relationship between self-monitoring and social anxiety. While some researchers (Tobey & Tunnell, 1981; Tomarelli & Shaffer, 1985; Wolfe, Lennox, and Cutler, 1986) have found a negative correlation between self-monitoring and social anxiety, Gabrenya and Arkin (1980) and Lennox and Wolfe (1984) found that self-monitoring was positively related to social anxiety. Also in contrast to Snyder's (1979) claims were the results of research on public self-consciousness and self-monitoring style: Tobey and Tunnell (1981) as well as Tomarelli and Shaffer (1985) found a positive correlation between these two constructs. Tomarelli and Shaffer also found a positive correlation between self-monitoring style and private self-consciousness.

It is interesting to note that significant correlations also were found between writing apprehension and social anxiety (r = .17), private self-consciousness (r = -.15), and public self-consciousness (r = .13) (Daly & Wilson, 1983). If persons who are socially anxious and publicly self-conscious are also prone to writing apprehension, it may be that self-monitoring style is the mediating factor here. Other correlational relationships which are shared by writing apprehension
and self-monitoring are interesting to note as well. Negative
correlations have been found between self-esteem and both writing
apprehension (Daly & Wilson, 1983) and the Other-Directedness dimension
of the Self-Monitoring Scale (Briggs et al., 1980). However, positive
correlations have been found between self-esteem and both the
Extraversion dimension of the Self-Monitoring Scale (Briggs et al.,
1980) as well as the total Self-Monitoring Scale score (Wolfe et al.,
1986). Self-acceptance has been negatively correlated with both
writing apprehension (Daly & Wilson, 1983) and communication
apprehension, a construct related to reticence or shyness (Watson,
1985). Shyness, in turn, has been negatively correlated with writing
apprehension (Daly & Wilson, 1983) and with the total Self-Monitoring
Scale score (Stewart & Carley, 1984; Wolfe et al., 1986) as well as
with the Extraversion dimension of the Self-Monitoring Scale (Briggs et
al., 1980). However, shyness also has been positively correlated with
the Other-Directedness dimension of the Self-Monitoring Scale (Briggs
et al., 1980). Furthermore, in a factor analysis of the
Self-Monitoring Scale, Gebrenya & Arkin (1980) reported that speaking
ability, involving verbal communication skills, was an important
dimension of the Self-Monitoring Scale as well, and that this speaking
ability factor was negatively correlated with self-consciousness.

Taken as a whole, these results suggest not only that the
constructs of self-monitoring and writing apprehension may share some
relationships with many other personality variables that focus on
concern with the self and with others' perceptions of that self, but
also that these two constructs may bear some relationship with one another. One might expect that persons high in writing apprehension are also high self-monitors, especially since writing apprehension is hypothesized to be due to evaluation anxiety (Daly, 1985): High self-monitors are very concerned with how they will be evaluated by others in different social situations (Snyder, 1979).

However, one might expect the reverse relationship between self-monitoring style and writer's block. Since persons with writer's block are often among the more skilled writers and may be less likely to be concerned with evaluation anxiety (Rose, 1984), then one might expect them to be low self-monitors in their writing behaviors, since low self-monitors are less concerned with how others evaluate them (Snyder, 1979). Numerous accounts of individuals' writing attitudes and behaviors would support this hypothesized negative correlation between writer's block and self-monitoring style. For example, in discussing the natural progression in children's development of writing skills, Graves (1985) discussed the inherent egocentricity which is not only apparent in children's behaviors, but also in the process of writing per se: The writer often assumes there is information in the text which is, in reality, still residing only in the writer's mind. For the writer, this is a perennial problem: To be oneself and to be one's reader simultaneously is the most difficult challenge of the writing process. According to Graves, children initially are so egocentric that they are unaware of any audience at all, and it is precisely this lack of audience awareness which allows them to flourish
and grow as unfettered writers. And, once made aware that other readers may not understand their writings, most children will assume that their readers are incorrect. However, Graves stated that, as children grow older and become more audience-oriented, they begin to assume that their readers are correct in pointing out writing deficiencies, and the first signs of writer's block will begin to appear: The writer is so focused on the reader that he or she cannot hear his or her own voice with which to write.

In discussing the writer's blocks of adults, numerous theorists would agree with Graves: Writers who are overly concerned with audience reactions at the expense of their own ideas are more likely to have difficulty in writing (Bartholomae, 1985; Harris, 1985; Murray, 1985). Indeed, Stacks, Boozer, and Lally (1983) found that writing apprehension was positively correlated with higher levels of writers' negative audience perception. Yet writers must learn to bridge the gap between their audiences' opinions and their own opinions (Bartholomae, 1985). As Bartholomae (1985) stated:

The writer who can successfully manipulate an audience (or, to use a less pointed language, the writer who can accommodate her motives to her reader's expectations) is a writer who can both imagine and write from a position of privilege . . . . She must be either equal to or more powerful than those she would address. (pp. 139-140)
Yet, such a power structure rarely exists, since so much writing is done under the eyes of instructors, editors, or other persons who may wield power over the writer. Furthermore, some theorists insist that to avoid writing blocks, writers must learn to ignore their audiences, and instead to write solely for themselves (Murray, 1985). As Boice (1985) stated, the writer must be able to express his or her ideas freely, and then to stand back and say, "This is who I am" (p. 186).

The writer's choice of whether to focus on the audience or on himself or herself is one which may be mediated by the writer's self-monitoring style. High self-monitors may be more likely to take their cues from their audiences, and to write in order to please their audiences, whereas low self-monitors might be more likely to take their cues from within themselves and to ignore the needs of their audiences. Daly (1985) has hypothesized that writers differ in terms of how conscious they are about writing. Moreover, in an empirical study, Daly, T. Miller, and Meyer (1984) found eight dimensions of writing situations, and several of these are pertinent to these possible relationships among writing apprehension, writer's block, and self-monitoring: degree of conspicuousness felt by writers, personal salience of the task, degree of evaluation, and writers' perceptions of audiences' likely reactions. Furthermore, some researchers have found that the same writers obtain very different ratings in the quality of their essays written in different discourse styles, such as the expressive style, which is writer-oriented, vs. the persuasive style, which is audience-oriented (Faigley, Daly, & Witte, 1981; White, 1985).
Research also has shown that highly apprehensive writers may be more anxious when using the expressive, self-oriented style as opposed to the persuasive, objective style which is less involved with the self (Faigley, Daly, & Witte, 1981).

Many of these inconsistencies may be explained by the construct of self-monitoring. As hypothesized earlier, it may be that highly apprehensive writers are more prone to be high self-monitors, and thus may feel more comfortable writing in a discourse mode oriented toward their audiences rather than toward themselves. On the other hand, individuals who are low self-monitors may perform better when using the expressive, self-oriented mode, since they prefer to look inward when expressing themselves. In any event, it seems safe to say that self-monitoring may be a mediating factor which could help to explain individual differences in writing apprehension and writer's block.

The present study was designed to investigate this possibility in order to assist those professionals who treat individuals with writing problems in delineating personality traits which may exacerbate such problems. Furthermore, if the construct of self-monitoring style is related differentially to writer's block and writing apprehension, then perhaps these two writing problems may be further differentiated from one another. Two other variables which may assist the researcher/practitioner in differentiating writer's block from writing anxiety might be quality of writing and the gender of the writer. Daly (1978) has demonstrated that less competent writers experience higher levels of writing anxiety, while Rose (1984) has suggested that the
most competent writers more often experience higher levels of writer's block. Accordingly, one might expect that quality of writing would be negatively correlated with writing anxiety but positively correlated with writer's block. Furthermore, since there is evidence that women tend to produce a higher quality of writing than men (e.g., Meier, McCarthy, & Schmeck, 1984), one might expect women to exhibit higher levels of writer's block but lower levels of writing anxiety as compared to men. The present investigation was designed to explore these possibilities in order to differentiate the constructs of writer's block and writing anxiety so that more conceptually clear research and treatment strategies might be developed. Furthermore, since the construct of procrastination has often been confused with writing anxiety and writer's block (e.g., Mack & Skjei, 1979), the present study was planned so that the construct of procrastination might also be differentiated from these other two writing problems, again, to provide for better research and treatment strategies.
CHAPTER III: METHODOLOGY

Design

This investigation employed a within-subjects correlational design in order to differentiate the constructs of writer's block, writing apprehension, and procrastination. Participants were asked to write a short essay and to fill out questionnaires assessing demographic variables, self-monitoring style, writer's block, writing apprehension, and procrastination. Correlational analyses and multiple regression analyses were conducted in order to assess differences among the constructs of writer's block, writing anxiety, and procrastination. Correlational, factor, and regression analyses were conducted in order to assess whether self-monitoring style, quality of essays, and gender of subjects were mediating variables which might assist in differentiating the constructs of writer's block and writing anxiety.

Research Participants

One hundred and nine undergraduates enrolled in an introductory psychology course at The Ohio State University received course credit for their participation in this research. Subjects were informed via the sign-up sheets that the experiment involved writing a brief essay about their opinions regarding the possibility that the legal age for
drinking alcohol may be raised to 21, as well as responding to several short questionnaires. Only the data from one hundred subjects were used in the statistical analyses, since nine subjects' data had to be dropped from the study: Four subjects' essays were selected as writing samples of "excellent," "high," "moderate," and "poor" quality (see Appendix H), while five subjects' essays could not be rated definitely as either agreeing or disagreeing with the writing task topic.

Tables 1 and 2 present the data gathered from a demographics questionnaire which was administered to all subjects: Information requested included age, gender, race, marital status, year in college, academic major, and number of and grades received in high school and college English courses (see Appendix A). Most of the subjects (81%) were between the ages of 18 and 20, with the average age being 19.7. Nearly two-thirds of the subjects were male, and almost all of the subjects (87%) were Caucasian. Ninety-five percent of the subjects were single, while 75% of them were first-year students. Subjects reported 30 different majors, with only four subjects reporting English as their major. Subjects reported an average of four English courses taken in high school, and an average of one English course taken in college. (Grades and credit hours received in these courses were not tallied because so many of the participants did not reveal this information.) Finally, very few participants responded to the last item on the Demographics Questionnaire, "Reason(s) for participation in
Table 1

Means and Standard Deviations for Demographic Variables

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<td>Years in College</td>
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<td>Number of college English courses</td>
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<td>Total number of high school and college English courses</td>
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<td>1.74</td>
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Table 2

Frequency Distributions for Demographic Variables

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this experiment." The few who did respond to this item generally stated that they needed experimental credits for their introductory psychology course.

**Independent Variables**

**Self-monitoring style.** This variable was assessed via Snyder's (1972, 1974) Self-Monitoring Scale (See Appendix B). Scores may range from 1 to 25. High scores indicate high levels of self-monitoring. Snyder (1974) reported this scale's test-retest reliability as .83 after a one-month interval. Snyder (1974, 1979) also has reported research which suggests that this scale's construct validity is adequate as well. The work of numerous other researchers also supports the validity of the Self-Monitoring Scale (e.g., Lippa, 1976; Miller, deTurck, & Kalbfleisch, 1983; Rarick, Soldow & Gize, 1976; Snyder & Swann, 1976; Snyder & Tanke, 1976).

However, the recent work of other researchers has called into question the construct validity of the Self-Monitoring Scale (Briggs, Cheek, & Buss, 1980; Edelmann, 1985; Furnham & Capon, 1983; Gabrenya & Arkin, 1980; Miell & Le Voi, 1984; Tobey & Tunnell, 1981). After performing factor analyses on this scale, each of these researchers has been able to demonstrate three or four separate dimensions, most of which correspond to the following three dimensions originally found by the first group of researchers (Briggs et al., 1980): Acting (items which reflect entertaining, acting, spontaneous public speaking, and ability to lie), Extraversion (items which reflect being the center of attention, telling stories or jokes, and playing charades effectively),
and Other-Directedness (items which reflect pleasing others, masking one's true feelings, conforming to the social situation, and an orientation toward others).

In contrast, other recent research suggests that the Self-Monitoring Scale in reality may represent a unitary construct (Snyder & Simpson, 1984; Tomarelli & Shaffer, 1985). In an attempt to rectify these discrepancies, Lennox and Wolfe (1984) created a Revised Self-Monitoring Scale comprised of 13 items which reflects only the ability to modify self-presentation and sensitivity to others' expressive behavior. However, since the reliability and validity of this revised scale have yet to be demonstrated, the original Self-Monitoring Scale (Snyder, 1972, 1974) was chosen for use in the present investigation. To assess the possibility that this scale is not unidimensional, a post hoc factor analysis was performed. Correlations of the measures of writing anxiety and writer's block were conducted with subjects' total self-monitoring scores as well as with the scores of the factors derived from the factor analysis.

**Writer's block.** This variable was assessed via the 24-item Writer's Block Questionnaire (Rose, 1984; see Appendix C). Scores may range from 24 to 120. High scores indicate high levels of writer's block. Rose (1984) reported reliability coefficients for the total scale scores as ranging from .72 to .87, with a median coefficient of .84. He also reported various levels of interitem reliability for the five subscales. Interitem reliability means were as follows: Blocking Subscale, \( r = .44 \); Lateness Subscale, \( r = .77 \); Premature Editing
Subscale, $r = .46$; Strategies for Complexity Subscale, $r = .43$; and Attitudes Subscale, $r = .42$. With the exception of the Lateness Subscale, which is comprised of only two items, these coefficients are relatively low. Rose (1984) also reported correlation coefficients among the five subscales, ranging from .06 to .59. Similar correlations were found among these subscales in the present study as well, with coefficients ranging from -.02 to .62. Table 3 presents both of these sets of correlations.

**Writing anxiety.** Writing anxiety was assessed via two different scales, the Writing Apprehension Scale (WAS; Daly & M.D. Miller, 1975a; see Appendix D) and the Thompson Writing Attitude Survey (TWAS; Thompson, 1978, 1979; see Appendix E). The Writing Apprehension Scale is comprised of 26 items, with a possible score range of 26 to 130, while the Thompson Writing Attitude Survey is comprised of 30 items, with a possible score range of 30 to 150. High scores on both questionnaires indicate high levels of writing anxiety.

Daly and M.D. Miller (1975a) reported a split-half reliability of .94 and a one-week test-retest reliability of .92 for the WAS, while Thompson (1979) reported no reliability data. Furthermore, while Daly (1985) has reported extensive research on the validity of the WAS, Thompson (1979) has reported none on the TWAS, nor has anyone else attempted to establish the validity of the TWAS. However, the decision was made to include the TWAS in the present investigation because it purportedly taps writers' feelings about and commitment to the writing process, while the WAS purportedly taps writers' fear of negative
Table 3

Comparison of Writer's Block Questionnaire Subscales' Correlation Coefficients Obtained by Rose (1984) and by the Present Researcher

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*p < .001
**p < .0001

Note. Rose did not publish the p values for the Writer's Block Questionnaire Subscales' correlation coefficients.
evaluation. Both of these instruments were employed in the present study in order to provide for multiple measures of writing anxiety.

**Procrastination.** This construct was assessed via the Procrastination Assessment Scale—Students (PASS; Solomon & Rothblum, 1984; see Appendix F), a 44-item scale which focuses on areas of procrastination (i.e., when writing a term paper, when studying for exams, when keeping up with weekly reading assignments, when performing administrative tasks, when performing attendance tasks, and when performing school activities in general) as well as on 13 reasons for procrastination when writing a term paper (i.e., evaluation anxiety, perfectionism, difficulty making decisions, dependency and help-seeking, aversiveness of the task and low frustration tolerance, lack of self-confidence, laziness, lack of assertion, fear of success, tendency to feel overwhelmed and poorly manage time, rebellion against control, risk-taking, and peer influence). PASS scores may range from 12 to 60: High scores indicate a high degree of procrastination.

Although Solomon and Rothblum did not report any reliability data on the PASS, the instrument did attain several significant positive correlations with a number of self-paced quizzes taken late in the semester (defined as behavioral evidence of procrastination), indicating some evidence for the scale's construct validity. Number of self-paced quizzes taken late in the semester was significantly correlated with PASS scores regarding procrastination when writing a term paper ($r = .24, p < .001$), when studying for exams ($r = .19, p < .01$), and when doing weekly reading assignments ($r = .28, p < .0005$).
Rothblum, Solomon, & Murakami (1986) also found a significant positive correlation ($r = .15, p < .005$) between delay on self-paced quizzes and self-reported procrastination, which was defined in this study by subjects' responses to the PASS subscale regarding procrastination when studying for exams. The PASS was chosen for inclusion in the present research in order to examine its potential correlations with other questionnaires measuring writing anxiety and writer's block.

**Dependent Variables**

**Number of words.** Each subject was asked to write a 30-minute essay expressing his or her opinion about whether the legal age for drinking alcohol should be raised to 21 (see Appendix G). Since many undergraduates are under the age of 21 and might be affected by this proposed change, this topic was chosen in order to promote greater personal involvement on the part of the subjects, since topics which entail greater personal involvement have been hypothesized to elicit a higher level of writer's block (Rose, 1984). Subjects also were informed that the best essays would be sent to the legislators directly involved with the proposed change in the drinking age, again, to increase subjects' involvement in the writing task and thereby induce higher levels of writer's block. The number of words written in response to this writing task was tallied by an undergraduate research assistant in order to ascertain a behavioral measure of potential writer's block. The assistant was instructed to count all words, regardless of length, and to disregard words which had been crossed out.
Writing quality. Two English composition instructors experienced in scoring college entrance essay exams were asked to rate each essay along a four-point scale (see Appendix H), with 4 being the highest quality rating and 1 the lowest. Interrater reliability was .78. The average of the two judges' quality ratings was used to determine subjects' quality scores.

Agreement with hypothetical audience. Each essay was rated by the same two English composition instructors in order to determine whether subjects agreed or disagreed with the hypothetical audience: a group of state legislators in favor of raising the legal age for drinking alcohol to 21. Subjects' essays were assigned a score of one for agreement or a score of zero for disagreement. On five of the essays, the raters were unable to determine whether the authors agreed or disagreed with the hypothetical audience, so the data of these subjects were eliminated from the study. On the remainder of the essays, interrater reliability was 1.00.

Subjects' assessment of the writing task. After subjects' essays were collected, subjects were asked to complete a "Writing Task Assessment" questionnaire (see Appendix I) comprised of six items with seven-point Likert scales. This questionnaire was designed for use in the present investigation in order to assess subjects' level of personal involvement in the writing task, as well as the task's level of difficulty. With the exception of item #2, which was reverse-scored, scores of seven were assigned to subjects who had placed checkmarks in the space next to the phrase "very much so."
Procedure

The experiment was conducted in a classroom during seven different one and one-half hour sessions, with 10-26 subjects in attendance per session. Two undergraduates majoring in psychology received course credit for assisting the experimenter in distributing and collecting materials during each session.

After participants had filled out the Demographics Questionnaire (see Appendix A), they were given their writing task assignment (see Appendix G), along with a blank test booklet in which to write their essays. Each booklet, as well as all other materials, carried an identifying number for each participant so as to insure anonymity. During the 30-minute writing period, one of the experimenter's assistants conducted a countdown with five-minute intervals by first writing "30 minutes" on the blackboard, and then changing this to 25, 20, 15, 10, and 5 minutes at the appropriate times.

After the essays and assignment sheets were collected, participants were asked to complete a "Writing Task Assessment" sheet (see Appendix I), which was intended to assess subjects' level of personal involvement as well as level of writing task difficulty. Once these were collected, subjects were read a statement explaining why questionnaires were to be administered after the essay writing period (see Appendix J). Since subjects had been led to believe that the purpose of the experiment was solely to assess attitudes toward the legal drinking age, it was important to present a rationale for the administration of questionnaires on writing behaviors. Subjects were
told that the researcher was attempting to measure subjects' attitudes toward the writing process to see if such attitudes had any effect on subjects' ability to express their opinions about the legal drinking age.

Next, in counterbalanced order across the seven different sessions, participants were given the Self-Monitoring Scale (Snyder, 1972, 1974; see Appendix B), the Writer's Block Questionnaire (Rose, 1984; see Appendix C), the Writing Apprehension Scale (Daly & M.D. Miller, 1975a; see Appendix D), the Thompson Writing Attitude Survey (Thompson, 1978, 1979; see Appendix E), and the Procrastination Assessment Scale-Students (Solomon & Rothblum, 1984; see Appendix F). After these were collected, participants were read a debriefing statement which stated that the actual purpose of this research was to examine levels of procrastination, writing anxiety, and writer's block among college students (see Appendix K). The experimenter then announced an upcoming, free workshop on writing anxiety and then asked if participants had any questions about the experiment.

Research Questions and Hypotheses

The following 8 research questions and 23 hypotheses were developed for investigation in the present research.

Research Question #1. Although there are many questionnaires which seek to measure the construct of writing anxiety (Daly, 1985), there is only one questionnaire which allegedly measures writer's block: the Writer's Block Questionnaire (WBQ), developed by Rose (1984, 1985). Accordingly, the present investigation attempted to answer the
following question: Does the Writer's Block Questionnaire accurately measure writer's block as a behavior (i.e., an inability to produce written communication)?

Hypothesis #1: There will be a significant negative correlation between scores on the Writer's Block Questionnaire and number of words written in response to the writing task.

Research Question #2. While many theorists have used the terms "writer's block," "writing anxiety," and "writing procrastination" interchangeably, Rose (1984, 1985) has contended that these are actually different constructs. Accordingly, the present investigation attempted to answer the following question: Can one differentiate the construct of writer's block as a behavior (i.e., an inability to produce written communication, as measured by number of words written and by scores on the Writer's Block Questionnaire) from the constructs of writing anxiety (an attitudinal aversion toward and avoidance of the writing process, as measured by scores on the Writing Apprehension Scale and on the Thompson Writing Attitude Survey) and procrastination (intentional delay in completing both written and other types of tasks, as measured by scores on the Procrastination Assessment Scale—Students)?

Hypothesis #2: If writer's block and writing anxiety are mutually exclusive, then there will be a significant positive correlation between number of words written and scores on the Writing Apprehension Scale.
Hypothesis #3: If writer's block and writing anxiety are mutually exclusive, then there will be a significant positive correlation between number of words written and scores on the Thompson Writing Attitude Survey.

Hypothesis #4: If writer's block and procrastination are mutually exclusive, then there will be a significant positive correlation between number of words written and scores on the Procrastination Assessment Scale-Students.

Hypothesis #5: If writer's block and writing anxiety are mutually exclusive, then there will be a significant negative correlation between scores on the Writer's Block Questionnaire and scores on the Writing Apprehension Scale.

Hypothesis #6: If writer's block and writing anxiety are mutually exclusive, then there will be a significant negative correlation between scores on the Writer's Block Questionnaire and scores on the Thompson Writing Attitude Survey.

Hypothesis #7: If writer's block and procrastination are mutually exclusive, then there will be a significant negative correlation between scores on the Writer's Block Questionnaire and scores on the Procrastination Assessment Scale-Students.

Research Question #3. Many theorists have used the terms "writing anxiety" and "writing procrastination" interchangeably (e.g., Bloom, 1985; Shilling, 1983). However, it is important to determine whether a person avoids the writing process due to fear of negative evaluation (writing anxiety; Daly, 1978) or as part of a larger life pattern in
which many tasks are often delayed (procrastination; Solomon & Rothblum, 1984). Accordingly, the present research attempted to answer the following question: Are the Writing Apprehension Scale and the Thompson Writing Attitude Survey able to differentiate the construct of writing anxiety (an attitudinal aversion toward and the avoidance of the writing process) from the construct of procrastination (an intentional delay in completing both written and other types of tasks)?

Hypothesis #8: If writing anxiety and procrastination are mutually exclusive, then there will be a significant negative correlation between scores on the Writing Apprehension Scale and scores on the Procrastination Assessment Scale-Students.

Hypothesis #9: If writing anxiety and procrastination are mutually exclusive, then there will be a significant negative correlation between scores on the Thompson Writing Attitude Survey and scores on the Procrastination Assessment Scale-Students.

Research Question #4. Self-monitoring style, or the ability to manage one's self-presentation in order to appear favorably to others (Snyder, 1979), could be a mediating factor in persons with writing difficulties. Since low self-monitors are highly concerned with maintaining their sense of integrity rather than with pleasing others (Snyder, 1979), one might expect low self-monitors to experience higher levels of writer's block when writing about a topic which forces them to alter their personal beliefs in some way, since Rose (1984) has suggested that such a conflict may exacerbate writing blocks. On the other hand, one might expect just the opposite of high self-monitors,
who, by definition, are highly concerned with appearing favorably to others (Snyder, 1979), more so than maintaining their personal integrity. One might expect high self-monitors to experience relatively little writer's block when writing about a topic which forces them to alter their personal beliefs in some way. However, one might expect a converse set of relationships between self-monitoring style and writing anxiety, which, according to Daly (1978), is due to fear of negative evaluation. One might expect that high self-monitors would be more prone to experiencing writing anxiety, since high self-monitors are very concerned about the way in which others will perceive and evaluate them. One the other hand, one might expect much lower levels of writing anxiety among low self-monitors, who, by definition, are much less concerned with the way in which others will perceive and evaluate them. Accordingly, the present investigation attempted to answer the following question: Is self-monitoring style, as measured by the Self-Monitoring Scale, related to writer's block and to writing anxiety?

Hypothesis #10: There will be a significant positive correlation between scores on the Self-Monitoring Scale and number of words written in response to the writing task.

Hypothesis #11: There will be a significant negative correlation between scores on the Self-Monitoring Scale and scores on the Writer's Block Questionnaire.
Hypothesis #12: There will be a significant positive correlation between scores on the Self-Monitoring Scale and scores on the Writing Apprehension Scale.

Hypothesis #13: There will be a significant positive correlation between scores on the Self-Monitoring Scale and scores on the Thompson Writing Attitude Survey.

Research Question #5. While Rose (1984) has suggested that highly skilled writers experience higher levels of writer's block, Daly (1978) has demonstrated that poorly skilled writers experience higher levels of writing apprehension. Accordingly, the following question was posed as part of the present investigation: Is quality of writing related to levels of writer's block and to levels of writing anxiety?

Hypothesis #14: There will be a significant positive correlation between quality of essays and scores on the Writer's Block Questionnaire.

Hypothesis #15: There will be a significant negative correlation between quality of essays and number of words written.

Hypothesis #16: There will be a significant negative correlation between quality of essays and scores on the Writing Apprehension Scale.

Hypothesis #17: There will be a significant negative correlation between quality of essays and scores on the Thompson Writing Attitude Survey.

Research Question #6. Since women's written work has consistently received higher ratings than men's written work (e.g., Meier, McCarthy,
& Schmeck, 1984), and since Rose (1984) has suggested that more skilled writers tend to experience higher levels of writer's block, one might expect women to exhibit higher levels of writer's block as compared to men. On the other hand, since Daly (1978) has demonstrated that writing anxiety is more common among less skilled writers, one might expect men to exhibit higher levels of writing anxiety as compared to women. Accordingly, the following question was posed as part of the present investigation: Is gender related to levels of writer's block and to levels of writing anxiety?

Hypothesis #18: Women will obtain significantly higher scores than men on the Writer's Block Questionnaire.

Hypothesis #19: Women will write significantly fewer words than men.

Hypothesis #20: Women will obtain significantly lower scores than men on the Writing Apprehension Scale.

Hypothesis #21: Women will obtain significantly lower scores than men on the Thompson Writing Attitude Survey.

Research Question #7: Since the Writer's Block Questionnaire (Rose, 1984) is the only existing instrument which attempts to measure writer's block, it is important to determine whether this instrument can predict levels of writer's block as well. The following question was posed as part of the present investigation. Does the Writer's Block Questionnaire accurately predict writer's block as measured by number of words written?
Hypothesis #22: In a simple linear regression analysis, scores on the Writer's Block Questionnaire will account for a significant amount of the variance in number of words written by subjects in response to the writing task.

Research Question #8. As part of the present investigation, an attempt was made to determine whether the construct of writer's block is adequately measured by the Writer's Block Questionnaire and whether writer's block is mediated by self-monitoring style, quality of writing, and gender of the writer. For practitioners and researchers studying the phenomenon of writer's block, it may be important to determine which, if any, of these variables might predict levels of writer's block most accurately. Since the Writer's Block Questionnaire purports to measure the construct of writer's block, one might expect that scores on this instrument would predict levels of writer's block more accurately than self-monitoring style, writing quality, or gender. Accordingly, the following question was posed as part of the present investigation: Of the four variables hypothesized as predictors of writer's block—Writer's Block Questionnaire scores, Self-Monitoring Scale scores, quality of essays, and gender of writers—which of them will predict writer's block (as measured by number of words written) most accurately?

Hypothesis #23: In a multiple regression analysis, scores on the Writer's Block Questionnaire will account for more variance in number of words written than Self-Monitoring Scale scores, quality of essays, or gender of subjects.
Planned Analyses of the Data

Descriptive statistics. Frequencies, means, standard deviations, and ranges of scores were calculated for all of the independent and dependent variables.

Correlational analyses. In order to test the first 21 hypotheses, Pearson product-moment correlation coefficients were calculated for the variables involved in these hypotheses.

Regression analyses. In order to test the last two hypotheses, one linear and one multiple regression analysis was conducted with the variables involved in these hypotheses.

Post Hoc Analyses of the Data

Factor analysis. The Self-Monitoring Scale (SMS; Snyder, 1972, 1974) was factor analyzed to determine whether the SMS measures a unidimensional or a multidimensional construct. Since most researchers who have factor analyzed the SMS have found three factors which closely resemble the original three factors found by Briggs, et al. (1980), a three-factor solution was specified in an iterated principal factor analysis with varimax rotation.

Correlational analyses. Pearson product-moment correlation coefficients were calculated to assess the relationships between the three dimensions derived from the factor analysis of the Self-Monitoring Scale and the measures of the two constructs which were hypothesized correlates of self-monitoring style: writer's block and writing anxiety. Furthermore, scores on the writing procrastination
subscale of the Procrastination Assessment Scale–Students were correlated with the measures of writer's block and writing anxiety.

Regression analyses. To assess whether the three dimensions of the SMS could serve as predictor variables for writer's block or writing anxiety, nine regression analyses were conducted with the measures of writer's block (number of words written, total Writer's Block Questionnaire scores, and scores on the five Writer's Block Questionnaire subscales) and writing anxiety (Writing Apprehension Scale and Thompson Writing Attitude Survey scores) as the criterion variables. Furthermore, since most of the five Writer's Block Questionnaire subscales achieved significant positive correlations with the measures of writing anxiety and procrastination, four other regression analyses were conducted with the five Writer's Block Questionnaire subscales as the predictor variables and number of words written, Writing Apprehension Scale, Thompson Writing Attitude Survey, and Procrastination Assessment Scale–Students scores as the criterion variables to assess whether any of the WBQ subscales could predict writer's block, writing anxiety, or procrastination.
CHAPTER IV
RESULTS

Introduction

After a brief description of the present investigation, this chapter will focus upon a report of the descriptive statistics, followed by a presentation of the results derived from the statistical analyses, both planned and post hoc. Planned analyses, both correlational and regression analyses, will be presented first. Next, some post hoc analyses will be presented, beginning with correlational analyses of the writing procrastination subscale of the Procrastination Assessment Scale—Students with the measures of writer's block and writing anxiety. This will be followed by a presentation of the factor analysis of the Self-Monitoring Scale (SMS). Then, correlational analyses of the derived SMS factors with writer's block and writing anxiety will be presented, followed by a two sets of multiple regression analyses, one with the derived SMS factors as predictor variables and one with the five Writer's Block Questionnaire subscales as predictor variables.

Brief Description of the Study

The present research was conducted in order to examine the differences among three constructs—writer's block, writing anxiety,
and procrastination—as well as to assess any relationships which might exist between self-monitoring style and two of the aforementioned constructs: writer’s block and writing anxiety.

One hundred and nine subjects were asked to write a short essay, and then were asked to complete several questionnaires designed to assess self-monitoring style, writer’s block, writing anxiety, procrastination, and attitude toward the writing task just completed. After these data were collected, the data of nine subjects were eliminated from the study: Four were used as samples to determine writing quality criteria, and five were unable to comply with the directions for the writing task. For the data of the remaining 100 subjects, Pearson product-moment correlation coefficients were calculated to test 21 hypotheses. A set of multiple regression analyses was conducted to test 2 other hypotheses.

Because so many of these hypotheses were not supported, some post hoc analyses were conducted. First, scores on the writing procrastination subscale of the Procrastination Assessment Scale—Students were correlated with the measures of writer’s block and writing anxiety. Next, a factor analysis of the Self-Monitoring Scale (SMS) was conducted in order to determine whether the SMS measures a unitary or a multidimensional construct. Then, some correlational analyses were conducted to determine any potential relationships between derived SMS factor scores and the measures of writer’s block and writing anxiety. Finally, two sets of regression analyses were conducted, one with the SMS factors as predictor variables, and one
with the five Writer's Block Questionnaire subscales as predictor variables.

**Descriptive Statistics: Independent Variables**

**Self-monitoring style.** Table 4 presents descriptive statistics for the Self-Monitoring Scale (Snyder, 1972, 1974; see Appendix B), as well as for four other questionnaires used in the present investigation. Most of the subjects' Self-Monitoring Scale scores ($\bar{X} = 13.02$, S.D. = 4.43) fell within an average range found by other researchers studying samples of university undergraduates: Edelmann (1985) reported a mean of 12.7 and a standard deviation of 4.2; Tomarelli & Shaffer (1985) reported a mean of 12.92 (standard deviation not reported); Tobey & Tunnell (1981) reported a mean of 10.87 and a standard deviation of 3.45; and Rarick, Soldow, & Geizer (1976) reported a mean of 13.06 and a standard deviation of approximately 4.00. Only 22% of the subjects might be considered low self-monitors (i.e., they attained scores at least one standard deviation below the mean, $N = 22$). And only 17% of the subjects might be considered high self-monitors (i.e., they attained scores at least one standard deviation above the mean, $N = 17$).

**Writer's block.** Descriptive statistics for the Writer's Block Questionnaire [(WBQ), Rose, 1984; see Appendix C] are presented in Table 4. Most of the subjects' scores indicated an average level of difficulty with writer's block ($\bar{X} = 57.79$, S.D. = 12.37). [Comparative
Table 4

Descriptive Statistics for Independent Variables

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>High Scores (%)</th>
<th>Low Scores (%)</th>
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</thead>
<tbody>
<tr>
<td>Self-Monitoring Scale</td>
<td>13.02</td>
<td>4.43</td>
<td>2-23</td>
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<td>22</td>
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<td>Writer's Block Questionnaire</td>
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<td></td>
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<td></td>
<td></td>
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<td>Total</td>
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<td>28-95</td>
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<td>Blocking</td>
<td>2.29</td>
<td>.68</td>
<td>1-4.3</td>
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<td>43</td>
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<td>Premature</td>
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<td>.86</td>
<td>1-5.0</td>
<td>7</td>
<td>42</td>
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<tr>
<td>Editing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies for Complexity</td>
<td>2.50</td>
<td>.62</td>
<td>1-4.2</td>
<td>1</td>
<td>24</td>
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<td>Attitudes</td>
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<tr>
<td>Lateness</td>
<td>1.56</td>
<td>.84</td>
<td>1-4.5</td>
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<td>83</td>
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<td>Writing Apprehension Scale</td>
<td>68.19</td>
<td>17.37</td>
<td>26-112</td>
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<td>15</td>
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<td>Thompson Writing Attitude Survey</td>
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<td>18.44</td>
<td>35-123</td>
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<td>19</td>
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<td>Procrastination Assessment Scale-Students</td>
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<td></td>
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<tr>
<td>Total</td>
<td>34.65</td>
<td>6.32</td>
<td>18-52</td>
<td>19</td>
<td>17</td>
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<td>Writing a term paper</td>
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<td>1.54</td>
<td>2-10</td>
<td>58</td>
<td>9</td>
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<tr>
<td>Studying for exams</td>
<td>6.65</td>
<td>1.73</td>
<td>2-10</td>
<td>54</td>
<td>16</td>
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<tr>
<td>Weekly reading</td>
<td>6.75</td>
<td>1.74</td>
<td>2-10</td>
<td>63</td>
<td>11</td>
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<tr>
<td>Administrative tasks</td>
<td>4.59</td>
<td>1.80</td>
<td>2-10</td>
<td>15</td>
<td>54</td>
</tr>
<tr>
<td>Attendance tasks</td>
<td>4.86</td>
<td>1.66</td>
<td>2-9</td>
<td>20</td>
<td>47</td>
</tr>
<tr>
<td>School activities in general</td>
<td>5.12</td>
<td>1.51</td>
<td>2-10</td>
<td>10</td>
<td>38</td>
</tr>
</tbody>
</table>

Note. Total scores on the Self-Monitoring Scale, Writer's Block Questionnaire, Writing Apprehension Scale, Thompson Writing Attitude Survey, and Procrastination Assessment Scale-Students were classified as high if they were at least one standard deviation above the sample mean and classified as low if they were at least one standard deviation below the sample mean. Scores on the subscales of the Writer's Block Questionnaire (WBQ) and of the Procrastination Assessment Scale-Students (PASS) were classified as high if subjects reported engaging in the behavior described in a given item "often/always always" (WBQ) or "nearly always/always" (PASS), and were classified as low if subjects reported engaging in a behavior "occasionally/never" (WBQ) or "almost never/never" (PASS).
data are unavailable, since Rose (1984, 1985), the only person to publish results involving the WBQ, did not publish descriptive statistics.] Only fourteen percent of the subjects attained scores at least one standard deviation below the sample mean (N = 14), indicating a low level of writer's block, and only 13% attained scores at least one standard deviation above the mean (N = 13), indicating a high level of writer's block.

Among all of the five WBQ subscales, most subjects' scores fell at the lower end of the 5-point score range (1 = almost never, 2 = occasionally, 3 = sometimes, 4 = often, 5 = almost always). Subscale scores were obtained by adding the scores (from 1-5) attained on subscale items, and then dividing that total by the number of items included in the subscale. The lowest mean among the subscales occurred on the Lateness Subscale ($\bar{X} = 1.56$, S.D. = .84), while the highest mean occurred on the Attitudes Subscale ($\bar{X} = 2.70$, S.D. = .79). The other three subscales' means were fairly equivalent to one another: Blocking Subscale, $\bar{X} = 2.29$, S.D. = .68; Premature Editing Subscale, $\bar{X} = 2.47$, S.D. = .86; Strategies for Complexity Subscale, $\bar{X} = 2.50$, S.D. = .62.

Writing anxiety. Table 4 presents descriptive statistics for subjects' scores on the Writing Apprehension Scale (WAS; Daly & M.D. Miller, 1975a; see Appendix D) and on the Thompson Writing Attitude Survey (TWAS; Thompson, 1978; see Appendix E). On both scales, most subjects' scores (on the WAS, $\bar{X} = 68.19$, S.D. = 17.37; on the TWAS, $\bar{X} = 83.09$, S.D. = 18.44) fell within an average range found by other
researchers studying samples of university undergraduates. On the WAS, the following researchers have reported similar descriptive statistics: Daly & M.D. Miller (1975a; $X = 79.28$, S.D. = 18.86), Daly & M.D. Miller (1975b; $X = 75.76$, no standard deviation reported), Daly (1978; $X = 75.59$, S.D. = 13.35), Daly & Shamo (1978; $X = 72.0$, S.D. = 17.7), Daly & M.D. Miller (1975c; $X = 71.86$, S.D. = 18.15), and Richmond & Dickson-Markman (1985; $X = 54.95$, S.D. = 15.56). On the TWAS, Thompson (1979) reported means of 81.9 and 88.0 (no standard deviations reported). In the present sample, less than 20% of the subjects' scores indicated low writing anxiety, i.e., their scores fell at least one standard deviation below the mean: on the WAS, $N = 15$, and on the TWAS, $N = 19$. Less than 20% of the subjects' scores indicated high writing anxiety, i.e., their scores fell at least one standard deviation above the mean: on the WAS, $N = 17$, and on the TWAS, $N = 17$.

**Procrastination.** Descriptive statistics for the Procrastination Assessment Scale-Students (PASS; Solomon & Rothblum, 1984; see Appendix F) are presented in Table 4. Most subjects' scores on the PASS ($X = 34.65$, S.D. = 6.32) fell within a similar range found by Solomon & Rothblum (1984) in their study of 291 undergraduates ($X = 33.53$, no standard deviation reported). Less than 20% of the subjects could be classified as low procrastinators (i.e., their scores were at least one standard deviation below the mean, $N = 17$) or as high procrastinators (i.e., their scores were at least one standard deviation above the mean, $N = 19$).
Subjects' average scores on the six subscales of the PASS are also presented in Table 4. These scores, which had a possible range of 2-10, were highest among the group on procrastination regarding assigned readings ($\bar{x} = 6.75$, S.D. = 1.74), writing term papers ($\bar{x} = 6.68$, S.D. = 1.54), and studying for exams ($\bar{x} = 6.65$, S.D. = 1.73). More than 50% of the subjects indicated that they nearly always or always procrastinate when attempting to do weekly reading assignments (63%), when writing a term paper (58%), and when studying for exams (54%). Subjects reported much lower frequency in procrastination when performing routine attendance tasks, such as meeting with advisors (20%; $\bar{x} = 4.86$, S.D. = 1.66); when performing administrative tasks, such as registering for classes (15%; $\bar{x} = 4.59$, S.D. = 1.80), or when performing school activities in general (10%; $\bar{x} = 5.12$, S.D. = 1.51).

Results from the second part of the PASS, reasons for procrastination when writing a term paper, are presented in Table 5. In this section of the PASS, Solomon and Rothblum (1984) used 2 questions each to assess subjects' frequency of writing procrastination for the following 13 reasons: evaluation anxiety (items 19 and 24), perfectionism (items 39 and 42), difficulty making decisions (items 20 and 31), dependency and help-seeking (items 21 and 41), aversiveness of the task and low frustration tolerance (items 27 and 35), lack of self-confidence (items 26 and 33), laziness (items 34 and 43), lack of assertion (items 23 and 29), fear of success (items 32 and 40), tendency to feel overwhelmed and poorly manage time (items 22 and 28),
<table>
<thead>
<tr>
<th>Subscale</th>
<th>Item Number</th>
<th>Reason for Procrastination When Writing a Term Paper</th>
<th>X</th>
<th>SD</th>
<th>% Checking &quot;Always&quot; or &quot;Nearly Always&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laziness</td>
<td>43</td>
<td>Felt lazy</td>
<td>3.83</td>
<td>1.24</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>Lack of energy</td>
<td>2.95</td>
<td>1.31</td>
<td>38</td>
</tr>
<tr>
<td>Tendency to Feel Overwhelmed and Poorly Manage Time</td>
<td>22</td>
<td>Too many other things to do</td>
<td>1.73</td>
<td>.93</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>Felt overwhelmed by the task</td>
<td>3.04</td>
<td>1.20</td>
<td>41</td>
</tr>
<tr>
<td>Aversiveness of the Task and Low Frustration Tolerance</td>
<td>27</td>
<td>Dislike writing term papers</td>
<td>3.32</td>
<td>1.36</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>Takes too long</td>
<td>2.82</td>
<td>1.24</td>
<td>34</td>
</tr>
<tr>
<td>Difficulty Making Decisions</td>
<td>20</td>
<td>Couldn't decide what to include in the paper</td>
<td>2.77</td>
<td>1.07</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>Couldn't choose among the topics</td>
<td>2.59</td>
<td>1.03</td>
<td>17</td>
</tr>
<tr>
<td>Peer Influence</td>
<td>44</td>
<td>Friends' pressure to do other things</td>
<td>2.91</td>
<td>1.29</td>
<td>34</td>
</tr>
<tr>
<td>Dependency and Help-Seeking</td>
<td>41</td>
<td>Waiting for more information from professor</td>
<td>2.61</td>
<td>1.10</td>
<td>21</td>
</tr>
</tbody>
</table>
rebellion against control (items 25 and 38), risk-taking (items 30 and 36), and peer influence (items 37 and 44).

Likewise, in the present investigation, subjects were asked to indicate on a 5-point scale whether or not these reasons reflected why they tended to procrastinate when writing a term paper. Items which attained a mean score of 2.5 or more are listed in Table 5. Eight of the ten items listed fall under the four categories of laziness (item 34 and 43), feeling overwhelmed by the task and poor time management (items 22 and 28), aversiveness of the task and low frustration tolerance (items 27 and 35), and decision-making difficulties (items 20 and 31). Items 44 and 41 pertain to peer influence and dependent help-seeking behaviors, respectively.

More than half of the subjects felt that they procrastinated when writing a term paper nearly always or always because they just felt too lazy (64%) or had too many other things to do (56%). Almost half of the subjects reported that such writing procrastination was nearly always or always due to the fact that they simply disliked writing term papers (48%) or felt overwhelmed by the task (41%). More than one-third of the subjects reported that writing procrastination occurred nearly always or always because they simply lacked the energy to begin the task (38%), because friends had pressured them to engage in other activities (34%), or because they felt writing a term paper simply takes too long (34%). And less than one-fourth of the subjects reported that they procrastinated when writing a term paper nearly always or always because they couldn’t decide what to include in the
paper (23%), because they were waiting for more information from the professor (21%), or because they simply couldn't choose among all the topics (17%).

**Descriptive Statistics: Dependent Variables**

**Number of words.** Descriptive statistics for the number of words subjects wrote in response to the assigned essay topic (see Appendix G) are presented in Table 6. Subjects wrote an average of 362 words (S.D. = 104.5) during the allotted 30-minute time period. The number of words written ranged from 149 to 845. The few subjects whose number of words tallied at least one standard deviation below the mean might be considered as having low levels of writer's block (N = 15), while subjects whose number of words tallied at least one standard deviation above the mean might be considered as having high levels of writer's block (N = 10).

**Writing quality.** Table 6 presents the descriptive statistics for ratings of the quality of essays written by participants. Essays were rated by two English instructors on a 4-point scale (see Appendix H) adapted from a similar scale used by Cohen (1973). The correlation between the two judges' ratings was .78. Scores were determined by averaging the two judges' ratings. Essays receiving a score of 4 were considered to be highest in quality. The average score was 2.30, with a standard deviation of .77. Nineteen subjects received a score of "poor" (1-1.5); 53 subjects received a score of "moderate" (2-2.5); 23 subjects received a score of "high" (3-3.5); and 5 subjects received a score of "excellent" (4.0).
Table 6

Descriptive Statistics for Dependent Variables

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of words written</td>
<td>361.96</td>
<td>104.50</td>
<td>149-845</td>
<td></td>
</tr>
<tr>
<td>Quality of essay</td>
<td>2.30</td>
<td>.77</td>
<td>1-4</td>
<td></td>
</tr>
<tr>
<td>Agreement with hypothetical</td>
<td>.13</td>
<td>.34</td>
<td>0-1</td>
<td></td>
</tr>
<tr>
<td>audience</td>
<td></td>
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</tr>
<tr>
<td>Writing Task Assessment</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>18.29</td>
<td>5.11</td>
<td>9-32</td>
<td></td>
</tr>
<tr>
<td>Felt pressured</td>
<td>2.14</td>
<td>1.54</td>
<td>1-7</td>
<td></td>
</tr>
<tr>
<td>Easy task*</td>
<td>3.00</td>
<td>1.55</td>
<td>1-7</td>
<td></td>
</tr>
<tr>
<td>Felt involved</td>
<td>5.21</td>
<td>1.82</td>
<td>1-7</td>
<td></td>
</tr>
<tr>
<td>Difficult task</td>
<td>2.09</td>
<td>1.49</td>
<td>1-7</td>
<td></td>
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<tr>
<td>Stressful task</td>
<td>2.35</td>
<td>1.60</td>
<td>1-7</td>
<td></td>
</tr>
<tr>
<td>Easier if had more</td>
<td>3.50</td>
<td>2.16</td>
<td>1-7</td>
<td></td>
</tr>
</tbody>
</table>

*Item #2 of the Writing Task Assessment was reverse-scored.
Agreement with hypothetical audience. When subjects were asked to write an essay expressing their opinions about the proposal for raising the legal age for drinking alcohol to 21, they were also told that the "best" essays would be sent to legislators directly involved with this proposal. While rating these essays for quality, two judges also rated them in terms of whether or not their authors agreed or disagreed that the legal age for drinking alcohol should be changed to 21. With the exception of the five subjects whose responses were dropped from the study because of difficulty in ascertaining their level of agreement with this proposed change, the correlation between the two judges' ratings was 1.00. The results of these ratings are presented in Table 6: 87 of the subjects disagreed with the idea of changing the legal age for drinking, while only 13 agreed that the law should be changed.

Assessment of writing task. Table 6 presents descriptive statistics for the Writing Task Assessment (see Appendix I). To assess whether the assigned topic was stressful, thereby possibly contributing to higher levels of writer's block (Greenberg & Tannenbaum, 1962), subjects were asked to respond to the Writing Task Assessment form, six questions on a 7-point scale, with a score of 7 indicating a higher level of stress. (Question #2 was reverse-scored.) Since the experimenter forgot to administer the Writing Task Assessment form to one group of 14 subjects, only 86 of the participants were able to respond to this questionnaire. Although most subjects felt personally involved with the writing task (\( \bar{X} = 5.21, \) S.D. = 1.82), most of them also felt that the writing task was fairly easy (\( \bar{X} = 3.00, \)
S.D. = 1.55). Most subjects did not feel that the task was stressful (\(\bar{X} = 2.35, \text{ S.D.} = 1.60\)) or difficult (\(\bar{X} = 2.09, \text{ S.D.} = 1.49\)). And, while most subjects did not feel pressured during the writing task (\(\bar{X} = 2.14, \text{ S.D.} = 1.54\)), some of them did feel that the task might have been easier if they had had more time in which to write it (\(\bar{X} = 3.50, \text{ S.D.} = 2.16\)).

**Statistical Analyses: Planned Comparisons**

**Introduction.** In planning the present investigation, 8 research questions were developed. To answer these questions, 23 hypotheses were formulated. Pearson product-moment correlation coefficients were calculated to test 21 of these hypotheses, and a set of multiple regression analyses was conducted in order to test the other 2 hypotheses. Each research question will be presented, followed by one or more corresponding hypotheses and the results of the statistical analyses conducted to test these hypotheses.

**Correlational analyses.** Pearson product-moment correlation coefficients were calculated in an attempt to answer six of the research questions by testing 21 of the proposed 23 hypotheses. Tables 7 and 8 present the zero-order correlations among the variables involved in the first 21 hypotheses.

**Research Question #1:** Does the Writer's Block Questionnaire (WBQ) accurately measure writer's block as a behavior (i.e., an inability to produce written communication)?
Table 7

Zero Order Correlation Coefficients Among the Variables in Research Questions 1-4

<table>
<thead>
<tr>
<th></th>
<th>Self-Monitoring</th>
<th>MQS&lt;sup&gt;a&lt;/sup&gt;</th>
<th>MQS Premature Blocking</th>
<th>MQS Strategies for Complexity</th>
<th>MQS Attitudes</th>
<th>MQS Lateness</th>
<th>Writing Apprehension Scale</th>
<th>Thompson Writing Attitude Survey</th>
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</thead>
<tbody>
<tr>
<td>Self-Monitoring Scale</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.03</td>
<td></td>
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<td>Writer's Block Questionnaire</td>
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<td></td>
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<tr>
<td>Total</td>
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<td>-.09</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Blocking</td>
<td>-.13</td>
<td>-.04</td>
<td>.83****</td>
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<td></td>
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<td></td>
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<tr>
<td>Premature Editing</td>
<td>.10</td>
<td>-.003</td>
<td>.42****</td>
<td>.42****</td>
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<tr>
<td>Strategies for Complexity</td>
<td>.08</td>
<td>-.07</td>
<td>.72****</td>
<td>.38****</td>
<td>.09</td>
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<tr>
<td>Attitudes</td>
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<td>-.06</td>
<td>.79****</td>
<td>.46****</td>
<td>-.02</td>
<td>.62****</td>
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<td></td>
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<tr>
<td>Lateness</td>
<td>-.14</td>
<td>-.28**</td>
<td>.48****</td>
<td>.42****</td>
<td>.33***</td>
<td>.17</td>
<td>.18</td>
<td></td>
</tr>
<tr>
<td>Writing Apprehension Scale</td>
<td>-.14</td>
<td>-.03</td>
<td>.75****</td>
<td>.49****</td>
<td>.07</td>
<td>.59****</td>
<td>.84****</td>
<td>.22*</td>
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<tr>
<td>Thompson Writing Attitude Survey</td>
<td>-.13</td>
<td>-.04</td>
<td>.72****</td>
<td>.54****</td>
<td>.06</td>
<td>.49****</td>
<td>.81****</td>
<td>.21*</td>
</tr>
<tr>
<td>Procrastination Assessment Scale-Students</td>
<td>-.12</td>
<td>.02</td>
<td>.23*</td>
<td>.12</td>
<td>-.08</td>
<td>.23*</td>
<td>.25**</td>
<td>.28**</td>
</tr>
</tbody>
</table>

<sup>a</sup>Writer's Block Questionnaire

<sup>P</sup> < .05
**<sup>P</sup> < .01
***<sup>P</sup> < .001
****<sup>P</sup> < .0001
Table 8

Correlation Coefficients for Writer’s Block and Writing Anxiety Measures with Quality of Essays and Gender of Subjects

<table>
<thead>
<tr>
<th></th>
<th>Quality</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>r</td>
<td>r</td>
</tr>
<tr>
<td>Writer's Block Questionnaire</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-.21*</td>
<td>-.05</td>
</tr>
<tr>
<td>Blocking</td>
<td>-.20*</td>
<td>-.03</td>
</tr>
<tr>
<td>Strategies for Complexity</td>
<td>-.11</td>
<td>.09</td>
</tr>
<tr>
<td>Premature Editing</td>
<td>.19</td>
<td>.03</td>
</tr>
<tr>
<td>Attitudes</td>
<td>-.31**</td>
<td>-.09</td>
</tr>
<tr>
<td>Lateness</td>
<td>-.06</td>
<td>-.12</td>
</tr>
<tr>
<td>Number of Words Written</td>
<td>.55****</td>
<td>.17</td>
</tr>
<tr>
<td>Writing Apprehension Scale</td>
<td>-.29**</td>
<td>-.16</td>
</tr>
<tr>
<td>Thompson Writing Attitude Survey</td>
<td>-.25**</td>
<td>-.22*</td>
</tr>
</tbody>
</table>

*p < .05  
**p < .01  
***p < .001  
****p < .0001
Hypothesis #1: There will be a significant negative correlation between scores on the Writer’s Block Questionnaire (WBQ) and number of words written in response to the writing task. This hypothesis was not supported: Although there was a very slight negative correlation ($r = -0.09, p < 0.38$) between WBQ scores and number of words written, it was not a statistically significant relationship. Furthermore, none of the five WBQ subscales achieved significant negative correlations with number of words written. Three subscales attained nonsignificant negative correlations: Lateness ($r = -0.14, p < 0.16$); Blocking ($r = -0.13, p < 0.19$); and Attitudes ($r = -0.12, p < 0.22$). The two other subscales attained nonsignificant positive correlations: Premature Editing ($r = 0.10, p < 0.33$) and Strategies for Complexity ($r = 0.08, p < 0.43$).

Research Question #2: Can one differentiate the construct of writer’s block as a behavior (i.e., an inability to produce written communication, as measured by number of words written and by scores on the Writer’s Block Questionnaire) from the constructs of writing anxiety (an attitudinal aversion toward and avoidance of the writing process, as measured by scores on the Writing Apprehension Scale and on the Thompson Writing Attitude Survey) and procrastination (intentional delay in completing both written and other types of tasks, as measured by scores on the Procrastination Assessment Scale—Students)?
Hypothesis #2: If writer's block and writing anxiety are mutually exclusive, then there will be a significant positive correlation between number of words written and scores on the Writing Apprehension Scale (WAS).

This hypothesis was not supported. Instead, there was a slight negative correlation ($r = -.14, p < .16$) between number of words written and WAS scores.

Hypothesis #3: If writer's block and writing anxiety are mutually exclusive, then there will be a significant positive correlation between number of words written and scores on the Thompson Writing Attitude Survey (TWAS).

This hypothesis was not supported. Instead, there was a slight negative correlation ($r = -.13, p < .19$) between number of words written and TWAS scores.

Hypothesis #4: If writer's block and procrastination are mutually exclusive, then there will be a significant positive correlation between number of words written and scores on the Procrastination Assessment Scale-Students (PASS).

This hypothesis was not supported. Instead, there was a slight negative correlation ($r = -.12, p < .26$) between number of words written and PASS scores.

Hypothesis #5: If writer's block and writing anxiety are mutually exclusive, then there will be a significant negative correlation between scores on the Writer's Block Questionnaire (WBQ) and scores on the Writing Apprehension Scale (WAS).
This hypothesis was not supported. Instead, there was a significant positive correlation ($r = .75, p < .0001$) between total scores on the WBQ and scores on the WAS. Furthermore, the five WBQ subscales also achieved positive correlations with scores on the WAS, and four were statistically significant: Attitudes ($r = .84, p < .0001$); Strategies for Complexity ($r = .59, p < .0001$); Blocking ($r = .49, p < .0001$); Lateness ($r = .22, p < .03$); and Premature Editing ($r = .07, p < .52$).

**Hypothesis #6:** If writer's block and writing anxiety are mutually exclusive, then there will be a significant negative correlation between scores on the Writer's Block Questionnaire and scores on the Thompson Writing Attitude Survey (TWAS).

This hypothesis was not supported. Instead, there was a significant positive correlation ($r = .72, p < .0001$) between scores on the WBQ and scores on the TWAS. Furthermore, the five WBQ subscales also achieved positive correlations with scores on the TWAS, and four were statistically significant: Attitudes ($r = .81, p < .0001$); Blocking ($r = .54, p < .0001$); Strategies for Complexity ($r = .49, p < .0001$); Lateness ($r = .21, p < .04$); and Premature Editing ($r = .06, p < .58$).

**Hypothesis #7:** If writer's block and procrastination are mutually exclusive, then there will be a significant negative correlation between scores on the Writer's Block Questionnaire (WBQ) and scores on the Procrastination Assessment Scale—Students (PASS).

This hypothesis was not supported. Instead, there was a small but statistically significant positive correlation ($r = .23, p < .02$) between scores on the WBQ and scores on the PASS. However, while one
WBQ subscale, Premature Editing, did achieve a negative correlation with PASS scores, it was statistically nonsignificant ($r = -.08, p < .44$). Furthermore, the other four WBQ subscales attained positive correlations with PASS scores, and three of them were statistically significant: Lateness ($r = .28, p < .005$); Attitudes ($r = .25, p < .01$); Strategies for Complexity ($r = .23, p < .02$); and Blocking ($r = .12, p < .23$).

**Research Question #3:** Are the Writing Apprehension Scale and the Thompson Writing Attitude Survey able to clearly differentiate the construct of writing anxiety (an attitudinal aversion toward and avoidance of the writing process) from the construct of procrastination (an intentional delay in completing both written and other types of tasks)?

**Hypothesis #8:** If writing anxiety and procrastination are mutually exclusive, then there will be a significant negative correlation between scores on the Writing Apprehension Scale (WAS) and scores on the Procrastination Assessment Scale—Students (PASS).

This hypothesis was not supported. Instead, there was a slight positive correlation ($r = .16, p < .11$) between scores on the WAS and scores on the PASS.

**Hypothesis #9:** If writing anxiety and procrastination are mutually exclusive, then there will be a significant negative correlation between scores on the Thompson Writing Attitude Survey (TWAS) and scores on the Procrastination Assessment Scale—Students (PASS).
This hypothesis was not supported. Instead, there was a significant positive correlation ($r = .28, p < .005$) between scores on the TWAS and scores on the PASS.

**Research Question #4**: Is self-monitoring style, as measured by the Self-Monitoring Scale, related to writer's block and to writing anxiety?

**Hypothesis #10**: There will be a significant positive correlation between scores on the Self-Monitoring Scale (SMS) and number of words written in response to the writing task.

This hypothesis was not supported: The very slight correlation ($r = .03, p < .80$) between SMS scores and number of words written was statistically nonsignificant.

**Hypothesis #11**: There will be a significant negative correlation between scores on the Self-Monitoring Scale (SMS) and scores on the Writer's Block Questionnaire (WBQ).

This hypothesis was not supported: the slight correlation ($r = -.09, p < .37$) between SMS scores and WBQ scores was not statistically significant. However, the WBQ Lateness Subscale did achieve a significant negative correlation with SMS scores ($r = -.28, p < .005$). The other four WBQ subscales achieved nonsignificant negative correlations with SMS scores: Strategies for Complexity ($r = -.07, p < .49$); Attitudes ($r = -.06, p < .56$); Blocking ($r = -.04, p < .72$); and Premature Editing ($r = -.003, p < .97$).
Hypothesis #12: There will be a significant positive correlation between scores on the Self-Monitoring Scale (SMS) and scores on the Writing Apprehension Scale (WAS).

This hypothesis was not supported. Instead, there was a statistically nonsignificant negative correlation ($r = -.03, p < .74$) between SMS scores and WAS scores.

Hypothesis #13: There will be a significant positive correlation between scores on the Self-Monitoring Scale (SMS) and scores on the Thompson Writing Attitude Survey (TWAS).

This hypothesis was not supported. Instead, there was a nonsignificant negative correlation ($r = -.04, p < .66$) between SMS scores and TWAS scores.

Research Question #5: Is quality of writing related to levels of writer's block and to levels of writing anxiety?

Hypothesis #14: There will be a significant positive correlation between quality of essays and scores on the Writer's Block Questionnaire (WBQ).

This hypothesis was not supported: There was, instead, a significant negative correlation ($r = -.21, p < .04$) between essays' quality ratings and WBQ scores. Furthermore, none of the five WBQ subscales attained significant positive correlations with quality of writing. Rather, they attained negative correlations with quality, and two were statistically significant: Attitudes ($r = -.31, p < .002$), Blocking
(r = -.20, p < .05), Premature Editing (r = -.19, p < .06), Strategies for Complexity (r = -.11, p < .29), and Lateness (r = -.06, p < .53).

**Hypothesis #15:** There will be a significant negative correlation between quality of essays and number of words written.

This hypothesis was not supported. Instead, there was a significant positive correlation (r = .55, p < .0001) between essays' quality ratings and number of words written.

**Hypothesis #16:** There will be a significant negative correlation between quality of essays and scores on the Writing Apprehension Scale (WAS).

This hypothesis was supported: There was a small but statistically significant negative correlation (r = -.29, p < .004) between essays' quality ratings and WAS scores.

**Hypothesis #17:** There will be a significant negative correlation between quality of essays and scores on the Thompson Writing Attitude Survey (TWAS).

This hypothesis was supported: There was a small but statistically significant negative correlation (r = -.25, p < .01) between essays' quality ratings and TWAS scores.

**Research Question #6:** Is gender related to levels of writer’s block and to levels of writing anxiety?

**Hypothesis #18:** Women will obtain significantly higher scores than men on the Writer’s Block Questionnaire (WBQ).
This hypothesis was not supported: Gender, which was coded "1" for women and "0" for men, achieved a nonsignificant negative correlation ($r = -.05, p < .64$) with WBQ scores. Furthermore, none of the five WBQ subscales achieved significant positive correlations with gender. Two subscales attained nonsignificant positive correlations: Strategies for Complexity ($r = .09, p < .39$) and Premature Editing ($r = .03, p < .78$), while the other three subscales attained nonsignificant negative correlations: Lateness ($r = -.12, p < .26$), Attitudes ($r = -.09, p < .36$), and Blocking ($r = -.03, p < .75$).

**Hypothesis #19:** Women will write significantly fewer words than men.

This hypothesis was not supported: There was a slight positive correlation ($r = .17, p < .09$) between gender and number of words written.

**Hypothesis #20:** Women will obtain significantly lower scores than men on the Writing Apprehension Scale (WAS).

This hypothesis was not supported: Although there was a slight negative correlation ($r = -.16, p < .12$) between gender and WAS scores, this correlation was not statistically significant.

**Hypothesis #21:** Women will obtain significantly lower scores than men on the Thompson Writing Attitude Survey (TWAS).

This hypothesis was supported: Although the correlation ($r = -.22, p < .02$) between gender and TWAS scores was small, it was statistically significant.
Regression analyses. A set of regression analyses was performed in an attempt to answer two of the proposed research questions by testing two hypotheses. The results of these analyses are presented in Table 9.

**Research Question #7:** Does the Writer's Block Questionnaire accurately predict writer's block as measured by number of words written?

**Hypothesis #22:** In a simple linear regression analysis, scores on the Writer's Block Questionnaire (WBQ) will account for a significant amount of the variance in number of words written by subjects in response to the writing task.

This hypothesis was not supported. Scores on the WBQ accounted for only .8% of the variance in the number of words written by subjects. This was not a statistically significant amount of variance: \( F(1,98) = .76, p < .38 \).

**Research Question #8:** Of the four variables hypothesized as predictors of writer's block—Writer's Block Questionnaire scores, Self-Monitoring Scale scores, quality of essays, and gender of writers—which of them will predict writer's block (as measured by number of words written) most accurately?

**Hypothesis #23:** In a multiple regression analysis, scores on the Writer's Block Questionnaire (WBQ) will account for more variance in number of words written than Self-Monitoring Scale (SMS) scores, quality of essays, or gender of subjects.
Table 9

Results of Two Regression Analyses of Number of Words Written

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R square</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis #1</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writer's Block Questionnaire</td>
<td>.008</td>
<td>1.98</td>
<td>.76</td>
<td>.38</td>
</tr>
<tr>
<td>Total Scores</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Analysis #2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full Model</td>
<td>.313*</td>
<td>4.95</td>
<td>10.84</td>
<td>.0001</td>
</tr>
<tr>
<td>Writer's Block Questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Scores</td>
<td>.001</td>
<td>1.95</td>
<td>.14</td>
<td>.71</td>
</tr>
<tr>
<td>Self-Monitoring Style</td>
<td>.002</td>
<td>1.95</td>
<td>.22</td>
<td>.64</td>
</tr>
<tr>
<td>Quality of Essays</td>
<td>.275*</td>
<td>1.95</td>
<td>38.04</td>
<td>.0001</td>
</tr>
<tr>
<td>Gender of Subjects</td>
<td>.012</td>
<td>1.95</td>
<td>1.63</td>
<td>.20</td>
</tr>
</tbody>
</table>
This hypothesis was not supported. Taken together, WBQ scores, SMS scores, quality of essays, and gender of subjects accounted for 31% of the total variance in number of words written: F(4,95) = 10.84, p < .0001. However, most of this variance was accounted for by quality of essays [27.5%; F(1,95) = 38.04, p < .0001]. Scores on the WBQ accounted for the least, rather than the most, variance [.2%; F(4,95) = .14, p < .71]. The other two variables did not account for a significant amount of variance, either: SMS scores accounted for .2% of the variance [F(4,95) = .22, p < .64], while gender of subjects accounted for 1.2% of the variance [F(4,95) = 1.63, p < .20].

Post Hoc Analyses

Introduction. Since many of the research hypotheses were not supported, some further exploratory analyses of the data were conducted. Scores on the writing procrastination subscale of the Procrastination Assessment Scale—Students were correlated with the measures of writer's block and writing anxiety. A factor analysis of the Self-Monitoring Scale (SMS) was conducted. The factors derived from this analysis then were correlated with the measures of writer's block and writing anxiety. Finally, two sets of regression analyses were conducted, one with the SMS factors as predictor variables and one with the five Writer's Block Questionnaire subscales as predictor variables.
Correlational analyses of writing procrastination with writer’s block and writing anxiety. Since procrastination is a behavior which occurs across different types of tasks, it is not surprising that subjects’ general procrastination scores attained a relatively low correlation with the measures of writer’s block and writing anxiety. However, as indicated by the results presented in Table 10, subjects’ scores on the writing procrastination subscale on the whole achieved higher correlations with the measures of writer’s block (with number of words written, $r = -.06$, $p < .58$; with WBO total scores, $r = .41$, $p < .0001$; with Blocking Subscale scores, $r = .21$, $p < .03$; with Prematuring Editing Subscale scores, $r = .15$, $p < .14$; with Strategies for Complexity Subscale scores, $r = .33$, $p < .0009$; with Attitudes Subscale scores, $r = .41$, $p < .0001$; with Lateness Subscale scores, $r = .33$, $p < .001$) and with the measures of writing anxiety (with WAS scores, $r = .39$, $p < .0001$; with TWAS scores, $r = .43$, $p < .0001$). With the exception of the correlation with number of words written, writing procrastination achieved higher correlations with the measures of writer’s block and writing anxiety than did procrastination in general.

Factor analysis. Since other researchers have found three or four independent factors present within the construct of self-monitoring style as measured by the SMS (Briggs, Cheek, & Buss, 1980; Edelmann, 1985; Furnham & Capon, 1983; Gabrenya & Arkin, 1980; Miell & LeVoi, 1984; Tobey & Tunnell, 1981), these researchers have questioned the
Table 10

Post Hoc Correlation Coefficients of Writing Procrastination Scores with Writer's Block and Writing Anxiety Measures

<table>
<thead>
<tr>
<th>Writer's Block/ Writing Anxiety Measures</th>
<th>Writing Procrastination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Words</td>
<td>-.06</td>
</tr>
<tr>
<td>Writer's Block Questionnaire</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.41***</td>
</tr>
<tr>
<td>Blocking</td>
<td>.21*</td>
</tr>
<tr>
<td>Premature Editing</td>
<td>.15</td>
</tr>
<tr>
<td>Strategies for Complexity</td>
<td>.33**</td>
</tr>
<tr>
<td>Attitudes</td>
<td>.41***</td>
</tr>
<tr>
<td>Lateness</td>
<td>.33**</td>
</tr>
<tr>
<td>Writing Apprehension Scale</td>
<td>.39***</td>
</tr>
<tr>
<td>Thompson Writing Attitude Survey</td>
<td>.43***</td>
</tr>
</tbody>
</table>

* P < .05  
** P < .001  
*** P < .0001
results of earlier studies which had attempted to correlate self-monitoring style as a unitary construct with other variables, especially since the correlations between these other variables and the factors found in the SMS may have canceled each other out. For example, in one study, the SMS factor of Other-Directedness was positively correlated with shyness, while the SMS factor of Extraversion was negatively correlated with shyness (Briggs, et al., 1980).

Since many of the hypotheses concerning potential correlations between the SMS and other variables were not supported in the present investigation, a factor analysis of the SMS was conducted to see if the factors found by the aforementioned researchers could be replicated and then correlated with the other variables in this study. Since most researchers who have conducted factor analyses of the SMS have found three factors which closely resemble the three factors originally found by Briggs, et al. (1980)--Other-Directedness, Acting, and Extraversion--the present investigator selected a three-factor solution for inclusion in this study. The results are presented in Table 11.

An iterated principal factor analysis with varimax rotation was performed. Three factors with eigenvalues of 1.0 or above were derived. Items which loaded .4 or above on each factor were included. Factor intercorrelations were all low and insignificant. These three factors corresponded roughly to the original three factors found by Briggs, et al. (1980): Other-Directedness, Acting, and Extraversion. In the present investigation, the first factor corresponded to
Table 11

Varimax Results for Post Hoc Factor Analysis of the Self-Monitoring Scale

<table>
<thead>
<tr>
<th>Item</th>
<th>Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factor 1</td>
</tr>
<tr>
<td>1</td>
<td>.49</td>
</tr>
<tr>
<td>2</td>
<td>.24</td>
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<td>3</td>
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<td>4</td>
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<td>5</td>
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<td>6</td>
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<td>7</td>
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<td>9</td>
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<td>.34</td>
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<td>13</td>
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<td>.23</td>
</tr>
<tr>
<td>25</td>
<td>-.63</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Eigenvalue</th>
<th>Variance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1 (Other-Directedness)</td>
<td>3.25</td>
<td>11</td>
</tr>
<tr>
<td>Factor 2 (Acting)</td>
<td>1.92</td>
<td>7</td>
</tr>
<tr>
<td>Factor 3 (Extraversion)</td>
<td>1.16</td>
<td>7</td>
</tr>
</tbody>
</table>

Note. Items were included in a factor if they had loadings greater than .4 on that factor.
Other-Directedness, the second factor corresponded to Acting, and the third factor corresponded to Extraversion. Table 12 presents the items included in these factors in the present investigation as compared to those items included in the factors found by Briggs, et al. (1980). (Since Briggs, et al. employed two samples in their study, their item inclusion criterion was a factor loading of at least .30 in both samples.) In the present investigation, these three factors accounted for 25.2% of the total variance in SMS scores. The first factor accounted for 11.2% of the variance, while the second and third factors accounted for 7.2% and 6.8% of the variance, respectively.

Despite the shortcomings of this factor analysis—namely the fact that the sample size was relatively small and the fact that the true-false format of the SMS may be inappropriate for factor analysis (Briggs, et al., 1980)—the results were similar enough to those found by Briggs, et al. that further exploration seemed warranted. Accordingly, some correlational analyses were conducted between the three SMS factors found in the present investigation and some of the other variables used in the present investigation.

Correlational analyses of the Self-Monitoring Scale (SMS) factors with measures of writer's block and writing anxiety. Pearson product-moment correlation coefficients were calculated to assess the relationships among the three SMS factors and the two constructs which were hypothesized correlates of self-monitoring style, namely writer's block and writing anxiety. Table 13 presents the correlation coefficients among the three SMS factors and the two measures of
Table 12

Comparison of Three Self-Monitoring Style Factors Found by Briggs et al. (1980) and Present Researcher

<table>
<thead>
<tr>
<th>Items</th>
<th>Loading</th>
<th>Eigenvalue</th>
<th>Variance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor 1 (Other-Directedness)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.30</td>
<td>&gt;1.00</td>
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<td>.63</td>
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</tr>
<tr>
<td>Factor 2 (Acting)</td>
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</tr>
<tr>
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<td>&gt;1.00</td>
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<td>18</td>
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<td>24</td>
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<tr>
<td>Factor 3 (Extraversion)</td>
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</tr>
<tr>
<td>12</td>
<td>12</td>
<td>.61</td>
<td>&gt;1.00</td>
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<tr>
<td>23</td>
<td>23</td>
<td>.60</td>
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</tr>
</tbody>
</table>

NOTE. In their study, Briggs et al. used two samples, comprised of 536 and 579 subjects, respectively. Data for the second sample is given here, since the second sample approximated more closely the percentages of women and men in the sample in the present investigation. Factor loadings for the two samples used in the study by Briggs et al. were equivalent. Their item inclusion criterion was a factor loading of at least .30 in both samples. In the present research, since only one sample was employed, a more conservative criterion, a factor loading of .40, was used.
Table 13

<table>
<thead>
<tr>
<th>Writer's Block/ Writing Anxiety Measures</th>
<th>SMS Factor 1 (Other-Directedness)</th>
<th>SMS Factor 2 (Acting)</th>
<th>SMS Factor 3 (Extraversion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Words</td>
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<td>-.06</td>
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<tr>
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<td>-.13</td>
<td>-.10</td>
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<tr>
<td>Blocking</td>
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<td>.03</td>
<td>-.09</td>
</tr>
<tr>
<td>Premature Editing</td>
<td>-.13</td>
<td>.11</td>
<td>.06</td>
</tr>
<tr>
<td>Strategies for Complexity</td>
<td>.09</td>
<td>-.23*</td>
<td>-.11</td>
</tr>
<tr>
<td>Attitudes</td>
<td>.13</td>
<td>-.21*</td>
<td>-.09</td>
</tr>
<tr>
<td>Lateness</td>
<td>-.26**</td>
<td>-.11</td>
<td>-.11</td>
</tr>
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<td>Writing Apprehension Scale</td>
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<td>-.14</td>
<td>-.12</td>
</tr>
<tr>
<td>Thompson Writing Attitude Survey</td>
<td>.17</td>
<td>-.16</td>
<td>-.19</td>
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*p < .05

**p < .01
writer's block (number of words written and WBQ total and subscale scores) and the two measures of writing anxiety (WAS and TWAS scores).

The three SMS factors were not significantly correlated with number of words written, WBQ total scores, WAS scores, or TWAS scores. However, there were some significant correlations among two of the SMS factors and three of the WBQ Subscales. Some of these correlations were in the hypothesized direction for correlations between total SMS scores and these variables, while some were not.

The first SMS factor, Other-Directedness, achieved nonsignificant positive correlations with number of words written ($r = .06, p < .56$), with total WBQ scores ($r = .02, p < .86$), with WAS scores ($r = .16, p < .12$), with TWAS scores ($r = .17, p < .10$), with WBQ Attitudes Subscale scores ($r = .13, p < .19$), and with WBQ Strategies for Complexity Subscale scores ($r = .09, p < .37$). Other-Directedness also achieved three negative correlations. Two of these were statistically insignificant, namely with the WBQ Blocking Subscale ($r = -.02, p < .87$) and with the WBQ Premature Editing Subscale ($r = -.13, p < .21$), while one was statistically significant, namely with the WBQ Lateness Subscale ($r = -.26, p < .008$).

The second SMS factor, Acting, achieved two nonsignificant positive correlations, one with the WBQ Blocking Subscale ($r = .03, p < .81$), and one with the WBQ Premature Editing Subscale ($r = .11, p < .29$). Acting was correlated negatively but nonsignificantly with number of words written ($r = -.06, p < .54$), with total WBQ scores ($r = -.13, p < .18$), with WAS scores ($r = -.14, p < .16$), with TWAS
scores ($r = -0.16$, $p < 0.11$), and with WBQ Lateness Subscale scores
($r = -0.11$, $p < 0.28$). However, Acting was negatively correlated to a
statistically significant degree with two of the WBQ subscales: the
Attitudes Subscale ($r = -0.21$, $p < 0.04$) and the Strategies for
Complexity Subscale ($r = -0.23$, $p < 0.02$).

The third SMS factor, Extraversion, was not significantly
correlated with any of the variables measuring writer's block or
writing anxiety. Nonsignificant positive correlations were found with
number of words written ($r = 0.0003$, $p < 0.99$) and with the WBQ Premature
Editing Subscale ($r = 0.06$, $p < 0.54$). Nonsignificant negative
correlations were found with total WBQ scores ($r = -0.10$, $p < 0.34$), WAS
scores ($r = -0.12$, $p < 0.24$), TWAS scores ($r = -0.19$, $p < 0.06$), and four
of the WBQ subscales: Attitudes ($r = -0.09$, $p < 0.40$), Blocking
($r = -0.09$, $p < 0.38$), Lateness ($r = -0.11$, $p < 0.26$), and Strategies for
Complexity ($r = -0.11$, $p < 0.27$).

Regression analyses. To assess whether the three Self-Monitoring
Scale (SMS) factors could serve as predictor variables for writer's
block and writing anxiety, nine multiple regression analyses were
conducted with the measures of writer's block (number of words written,
Writer's Block Questionnaire total scale scores, and five WBQ subscale
scores) and the measures of writing anxiety (WAS and TWAS scores) as
the criterion variables. Furthermore, to determine whether any of the
Writer's Block Questionnaire subscales might predict writer's block,
writing anxiety, or procrastination (especially in light of the fact
that most of the WBQ subscales achieved significant positive
correlations with the measures of writing anxiety and procrastination),
four other multiple regression analyses were conducted with the five
WBQ subscales as the predictor variables, and with number of words and
WAS, TWAS, and PASS scores as the criterion variables to assess whether
any of the WBQ subscales could predict writer's block, writing anxiety
or procrastination. Tables 14-26 present the results of these 13
multiple regression analyses.

As indicated in Tables 14-26, among the nine multiple regression
analyses with SMS factors as the predictor variables, only two full
models predicted a statistically significant amount of variance in
their criterion variables, namely the WBQ Lateness Subscale, with all
three SMS factors accounting for 8.8% of the variance:
F(3,96) = 3.09, p < .03; and the TWAS, with all three SMS factors
accounting for 8.7% of the variance: F(3,96) = 3.03, p < .03.
Individually, the three SMS factors accounted for the following amounts
of variance in the WBQ Lateness Subscale scores: Other-Directedness
accounted for a statistically significant amount of the variance,
6.6% [F(1,96) = 6.91, p < .01], while Acting accounted for only .7% of
the variance [F(1,96) = .70, p < .41], and Extraversion accounted for
only 1.1% of the variance [F(1,96) = 1.13, p < .29]. Individually, the
three SMS factors accounted for the following statistically
insignificant amounts of variance in TWAS scores: Other-Directedness
accounted for 3.1% of the variance [F(1,96) = 3.23, p < .08], Acting
accounted for 2.4% of the variance [F(1,96) = 2.48, p < .12], and
Table 14

Results of Post Hoc Regression Analysis of Number of Words Written

<table>
<thead>
<tr>
<th>Predictors</th>
<th>R square</th>
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<th>p</th>
<th>P</th>
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</thead>
<tbody>
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<td>.55</td>
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<tr>
<td>Factor 1 (Other-Directedness)</td>
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<td></td>
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<tr>
<td>Self-Monitoring Scale</td>
<td>1,96</td>
<td></td>
<td>.42</td>
<td>.52</td>
</tr>
<tr>
<td>Factor 2 (Acting)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Monitoring Scale</td>
<td>1,96</td>
<td></td>
<td>.01</td>
<td>.94</td>
</tr>
<tr>
<td>Factor 3 (Extraversion)</td>
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Table 15

Results of Post Hoc Regression Analysis of Writer's Block Questionnaire Total Scores

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</tr>
</thead>
<tbody>
<tr>
<td>Full Model</td>
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<td>.82</td>
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<tr>
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<td>.06</td>
<td>.54</td>
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<tr>
<td>(Other-Directedness)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Monitoring Scale Factor 2</td>
<td>1.96</td>
<td>1.54</td>
<td>.65</td>
<td>.42</td>
</tr>
<tr>
<td>(Acting)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Monitoring Scale Factor 3</td>
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<td>.54</td>
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<tr>
<td>(Extraversion)</td>
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Table 16

Results of Post Hoc Regression Analysis of Writer's Block Questionnaire Blocking Subscale

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</thead>
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<tr>
<td>Self-Monitoring Scale Factor 1 (Other-Directedness)</td>
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<td>.85</td>
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<td>.73</td>
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<tr>
<td>Self-Monitoring Scale Factor 3 (Extraversion)</td>
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<td>.82</td>
<td>.37</td>
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</tr>
<tr>
<td>Predictors</td>
<td>R square</td>
<td>df</td>
<td>F</td>
<td>P</td>
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<td>----------</td>
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<td>------</td>
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<td>1.77</td>
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<td>1.18</td>
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<td>.25</td>
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Table 18

Results of Post Hoc Regression Analysis of Writer's Block Questionnaire Strategies for Complexity Subscale

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<tr>
<td>(Other-Directedness)</td>
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<td></td>
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<tr>
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<td>.049</td>
<td>1.96</td>
<td>5.14</td>
<td>.03*</td>
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<tr>
<td>(Acting)</td>
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</tr>
<tr>
<td>Self-Monitoring Scale Factor 3</td>
<td>.007</td>
<td>1.96</td>
<td>.77</td>
<td>.38</td>
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Table 19

Results of Post Hoc Regression Analysis of Writer's Block Questionnaire
Attitudes Subscale

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Table 20

Results of Post Hoc Regression Analysis of Writer’s Block Questionnaire Lateness Subscale

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<td>3.09</td>
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<td>6.91</td>
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<td>Self-Monitoring Scale Factor 2</td>
<td>.007</td>
<td>1.96</td>
<td>.70</td>
<td>.41</td>
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<tr>
<td>(Acting)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>.29</td>
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### Table 21

Results of Post Hoc Regression Analysis of Writing Apprehension Scale with Self-Monitoring Scale Factors as Predictors

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<td>1.96</td>
<td>.12</td>
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<tr>
<td>Self-Monitoring Scale Factor 1 (Other-Directedness)</td>
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<tr>
<td>Self-Monitoring Scale Factor 2 (Acting)</td>
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<td>2.01</td>
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<tr>
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### Table 22

Results of Post Hoc Regression Analysis of Thompson Writing Attitude Survey with Self-Monitoring Scale Factors as Predictors

<table>
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Table 23

Results of Post Hoc Regression Analysis of Number of Words Written with Writer's Block Questionnaire Subscales as Predictors

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<td>4.35</td>
<td>.04*</td>
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<td></td>
</tr>
<tr>
<td>Attitudes</td>
<td>.017</td>
<td>1,94</td>
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<td>1.72</td>
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Table 24

Results of Post Hoc Regression Analysis of Writing Apprehension Scale
with Writer's Block Questionnaire Subscales as Predictors

<table>
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<td>.80</td>
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Table 25

Results of Post Hoc Regression Analysis of Thompson Writing Attitude Survey with Writer's Block Questionnaire Subscales as Predictors

<table>
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</thead>
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Table 26

Results of Post Hoc Regression Analysis of Procrastination Assessment Scale—Students with Writer's Block Questionnaire Subscales as Predictors

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</thead>
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<td>Complexity</td>
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<td>Attitudes</td>
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</table>
Extraversion accounted for 2.9% of the variance \( [F(1,96) = 3.07, p < .08] \).

With the other seven criterion variables, the SMS factors taken together as a full model did not account for a statistically significant amount of variance. The three SMS factors accounted for only .8% of the variance in number of words written \( [F(3,96) = .25, p < .86] \), for only 2.5% of the variance in WBQ total scale scores \( [F(3,96) = .82, p < .49] \), for only 5.8% of the variance in WAS scores \( [F(3,96) = 1.96, p < .12] \), for only .9% of the variance in WBQ Blocking Subscale scores \( [F(3,96) = .30, p < .83] \), and for only 3.2% of the variance in WBQ Premature Editing Subscale scores \( [F(3,96) = 1.05, p < .38] \). However, even though the three SMS factors taken together as a full model did not account for a significant amount of variance in either WBQ Strategies for Complexity Subscale scores \( [7.1%; F(3,96) = 2.43, p < .07] \) or in WBQ Attitudes Subscale scores \( [6.8%; F(3,96) = 2.32, p < .08] \), these full models did approach significance, and in these two regression analyses, the second SMS factor, Acting, did account individually for a significant amount of variance in Strategies for Complexity Subscale scores \( [5%; F(1,96) = 5.14, p < .03] \) and Attitudes Subscale Scores \( [4.38; F(1,96) = 4.40, p < .04] \).

The results of the multiple regression analyses performed with the five Writer's Block Questionnaire (WBQ) subscales as predictor variables, presented in Tables 23-26, would suggest that the WBQ is better at predicting writing anxiety and procrastination than writer's
block, at least as measured by number of words written. Taken together, the five WBQ subscales accounted for only 10.5% of the variance in number of words written \( F(5,94) = 2.21, p < .06 \). (This 10.5% figure stands in contrast to the .8% figure found when the total Writer’s Block Questionnaire scores, ranging from 24-120, were used to predict number of words written. In the post hoc regression analysis on number of words written, each of the five WBQ subscales was weighted equally by dividing each subscale score by the number of items on that particular subscale, so that scores ranged from 1-5 per scale, for a total of 5-25 as a possible range of scores to be used in the full model regression analysis. This difference in amount of variance might suggest that WBQ scores serve as better predictors of writer’s block when the five subscales are weighted equally.) However, these same five subscales accounted for a much larger and significant amount of variance in WAS scores \([73%; F(5,94) = 50.79, p < .0001]\), in TWAS scores \([70%; F(5,94) = 42.78, p < .0001]\), and in PASS scores \([16%; F(5,94) = 3.57, p < .005]\). Taken individually, it appears that, among the five WBQ subscales, the Strategies for Complexity subscale is the best predictor of writer’s block, the Attitudes Subscale is the best predictor of writing anxiety, and the Lateness Subscale is the best predictor of procrastination.

Among the five WBQ subscales, only one, the Strategies for Complexity subscale, accounted for a statistically significant amount of variance in number of words written: 4.1%, \( F(1,94) = 4.35, p < .04 \). The other four WBQ subscales accounted for nonsignificant amounts of
variance in number of words written: Premature Editing, 2.7% \( F(1,94) = 2.83, p < .10 \); Blocking, 1.7% \( F(1,94) = 1.74, p < .19 \); Attitudes, 1.7% \( F(1,94) = 1.75, p < .19 \); and Lateness, 1.6% \( F(1,94) = 1.72, p < .19 \).

In predicting writing anxiety, among the five WBQ subscales, the Attitudes Subscale was the only one which accounted for a significant amount of variance in WAS scores [28%; \( F(1,94) = 97.98, p < .0001 \)]. The other four subscales accounted for nonsignificant amounts of variance in WAS scores: the Blocking Subscale accounted for only .6% \( F(1,94) = 2.21, p < .14 \), the Premature Editing Subscale accounted for only .01% \( F(1,94) = .06, p < .80 \), the Strategies for Complexity Subscale accounted for only .5% \( F(1,94) = 1.86, p < .18 \), and the Lateness Subscale accounted for only .03% \( F(1,94) = .12, p < .73 \). Similar results occurred on the analysis with TWAS scores as the criterion variable. While the Attitudes Subscale accounted for a significant amount of variance in TWAS scores [28%; \( F(1,94) = 87.25, p < .0001 \)], all other subscales except the Blocking Subscale accounted for nonsignificant amounts of variance. The Blocking Subscale accounted for 3.1% of the variance in TWAS scores \( F(1,94) = 9.61, p < .003 \), while the Premature Editing Subscale accounted for only .05% of the variance \( F(1,94) = .17, p < .68 \), the Strategies for Complexity Subscale accounted for only .2% of the variance \( F(1,94) = .54, p < .46 \), and the Lateness Subscale accounted for only .0002% of the variance \( F(1,94) = .00, p < .98 \).
In the analysis with PASS scores as the criterion variable, only the Lateness Subscale accounted for a statistically significant amount of the variance [7.7%; $F(1,94) = 8.63, p < .004$]. The other four subscales accounted for nonsignificant amounts of the variance in PASS scores: Blocking Subscale, .1% [$F(1,94) = .14, p < .71$]; Premature Editing Subscale, 2.2% [$F(1,94) = 2.43, p < .12$]; Strategies for Complexity Subscale, 1.1% [$F(1,94) = 1.26, p < .27$]; and Attitudes Subscale, .9% [$F(1,94) = 1.00, p < .32$].

**Summary**

In the present sample, comprised largely of 19-year-old, male, Caucasian, unmarried undergraduates with relatively little college writing experience, most subjects fell into the average range (as compared to samples studied by other researchers) in terms of their self-monitoring style and levels of writer's block, writing anxiety, and procrastination. In response to the 30-minute writing task, most subjects wrote essays of moderate quality which were 250-450 words in length. Most subjects disagreed with their hypothetical audience, a group of legislators who advocated raising the legal age for consumption of alcohol. Additionally, most subjects felt personally involved in the writing task, but did not feel that the writing task was particularly difficult or stressful.

Among the eight research questions posed during this investigation, two received partial support for their concomitant hypotheses, while six received no support for their hypotheses. Research Question #5, regarding the relationship between quality of writing and levels of
writer's block and writing anxiety, explored the hypothesis that quality of writing is positively correlated with writer's block. Instead, there was a significant negative relationship found between writing quality and writer's block. However, a second hypothesis, which entailed a negative correlation between writing quality and writing anxiety, was supported. Research Question #6, regarding the relationship between gender and levels of writer's block and writing anxiety, explored the hypothesis that women, as compared to men, would report higher levels of writer's block and lower levels of writing anxiety. This hypothesis was only partially supported: On one of the two measures of writing anxiety, women did report significantly lower scores as compared to men.

Among the other six research questions, no concomitant hypotheses were supported. Research Questions #1, #7, and #8, exploring the effectiveness of the Writer's Block Questionnaire as an adequate measure and predictor of writer's block, received no corroboration as to the effectiveness of the Writer's Block Questionnaire as an instrument. Rather, quality of essays was the only significant predictor of writer's block (as measured by number of words written.) Questions #2 and #3 queried whether or not the constructs of writer's block, writing anxiety, and procrastination can be differentiated from one another. The results indicate that the measures used in the present investigation were unable to differentiate these three constructs. Research Question 4, whose hypotheses posited a negative relationship between self-monitoring style and writer's block and a
positive relationship between self-monitoring style and writing anxiety, received no support. The fact that many of these research hypotheses were not supported could be explained at least partially by the results of several post hoc analyses, which suggested that the measures of self-monitoring style, writer's block, and writing anxiety employed in the present investigation may not be conceptually valid measures.
CHAPTER V
DISCUSSION

Introduction

This chapter will include a discussion of the results presented in Chapter IV, as well as a section on this study's limitations and its implications for future research and clinical practice. The results will be discussed in the following order: first, descriptive statistics for demographic, independent, and dependent variables will be discussed. Then the statistical analyses, both planned and post hoc, will be discussed with respect to the research questions posed prior to the investigation. This will be followed by a section on this study's limitations and its implications for future research and clinical practice.

Descriptive Statistics: Demographics and Independent Variables

Demographic variables. The sample used in this study was relatively homogenous; 81% of the subjects were between the ages of 18 and 20, 66% were male, 87% were Caucasian, 95% were single, and 75% were first-year students. Although most subjects reported having taken an average of four high school English courses, most reported an
average of only one college-level English course. Thus, the results of
the present investigation reflect the responses of 18 to 20-year-old
Caucasian males, single and in their first year of college, with
relatively little experience in writing at a college level.

These demographics may limit the generalizability of this study's
results to a large degree. Non-black students have been found to
exhibit better writing performance than black students, while women
tend to exhibit better writing performance than men (Meier, McCarthy, &
Schmeck, 1984). In the present sample, a post hoc correlation between
genre and quality indicated that women did tend to write essays of
higher quality, but not to a statistically significant degree ($r = .12,
p < .22$). In any event, the fact that a very large percentage of the
subjects in the present investigation were white males may limit this
study's generalizability. It may be that non-white or female writers
would exhibit different writing behaviors than those reported by the
majority of the subjects in the present investigation. Furthermore,
most subjects reported being involved in this research simply for the
sake of receiving experimental credit for an introductory psychology
class, rather than for the sake of discovering why they may suffer from
writer's block, writing anxiety, or procrastination. This is not
surprising, since a slight amount of deception concealed the fact that
the present study entailed an investigation of these three constructs.
However, future researchers may wish to select a group of subjects who
have been previously diagnosed as suffering from writer's block,
writing anxiety, or procrastination.
Independent variables. On the measures of self-monitoring style, writer's block, writing anxiety, and procrastination, most subjects' scores fell within the average range of these measures, as compared to the results of other researchers employing these same measures. Most of the subjects in this study fell within the average range on the Self-Monitoring Scale (SMS): only 22% scored at least one standard deviation below the mean (indicating a low self-monitoring style), and only 17% scored at least one standard deviation above the mean (indicating a high self-monitoring style). On the Writer's Block Questionnaire (WBQ), only 14% scored at least one standard deviation below the mean (indicating a low level of writer's block), and only 13% scored at least one standard deviation above the mean (indicating a high level of writer's block). Among the five WBQ subscales, subjects attained their highest scores on the Attitudes Subscale, whose mean was almost twice that of the Lateness Subscale, on which subjects tended to score lowest.

Similar results occurred on the two measures of writing anxiety and on the measure of procrastination. Most subjects' scores fell within the average range found by other researchers. Very few subjects reported very low levels of writing anxiety (i.e., achieved scores at least one standard deviation below the mean): on the Writing Apprehension Scale (WAS), 15%, and on the Thompson Writing Attitude Survey 19%. Similarly, very few subjects reported high levels of writing anxiety (i.e., achieved scores at least one standard deviation above the mean): on the WAS, 17%, and on the TWAS, 17%. Finally, on
the Procrastination Assessment Scale-Students (PASS), most subjects’ scores again fell within a similar range found by other researchers, with only 17% reporting low procrastination (i.e., scoring at least one standard deviation below the mean), and only 19% reporting high procrastination (i.e., scoring at least one standard deviation above the mean).

However, in terms of writing procrastination, these figures are deceptive. On half of the PASS subscales—procrastination when performing routine attendance tasks, administrative tasks, and school activities in general—only 10–20% of the subjects reported procrastinating always or nearly always. On the other hand, 54–63% of the subjects reported procrastinating always or nearly always when keeping up with weekly reading assignments (63%), writing term papers (58%), and studying for exams (54%). Thus, even though most of the subjects reported that they did not procrastinate on a regular basis in all aspects of their academic lives, a majority of them reported that they do procrastinate most of the time when writing term papers.

In reporting the reasons for procrastination when writing a term paper, the most common reasons checked were laziness, feeling overwhelmed by the task and poor time management, aversiveness of the task and low frustration tolerance, and decision-making difficulties. In other words, these subjects reported that they most often procrastinated when writing a term paper primarily because they just didn’t feel motivated to do something which they disliked. At first glance, this would appear to be in conflict with Rose’s (1984)
contention that writers become blocked even though they are highly motivated to write, and with Daly & M.D. Miller's (1975a, 1975b) contention that writers become anxious due to fear of negative evaluation. Upon closer scrutiny, however, it may be that those subjects who reported that they procrastinate when writing a paper because they dislike writing may indeed dislike writing because they fear such negative evaluation, or because they fear that they will become blocked. This idea will be explored further when the correlational analyses are discussed later in this chapter.

Finally, the fact that these measures of self-monitoring style, writer's block, writing anxiety, and procrastination were all self-report must be considered as well. It may be that subjects were not totally honest in responding to these questionnaires: Subjects may have responded in such a way as to appear more favorably, that is, as being less prone to high self-monitoring, writer's block, writing anxiety, or procrastination than they are in reality.

Thus, most of the subjects in this study were similar to those in other samples of university students in terms of their restricted range of scores on the measures of self-monitoring style, writer's block, writing anxiety, and procrastination. Given the demographics, these results are not surprising. This restricted range of scores on the independent variables may have affected the results of the present investigation. Without extreme scores, some true correlations among the variables may have been masked. Such a restricted range on these measures also limits the generalizability of this study. Accordingly,
future researchers may want to select subjects on the basis of their membership in high or low categories of self-monitoring style, writer's block, writing anxiety, or procrastination.

**Descriptive Statistics: Dependent Variables**

**Number of words.** Most subjects wrote about 360 words during the 30-minute period allotted. It may be that, since most subjects were in the age group ($X = 19$) most affected by the proposed change in the legal drinking age for alcohol from 19 to 21, they felt very strongly and were able to express their thoughts quickly. Since their responses were to remain anonymous, this may have inhibited a high level of writer's block linked to perfectionism or concern with pleasing the legislators who allegedly were to read the best essays.

**Quality of essays.** Since 81% of the subjects received a score of 2.0-4.0 ("moderate" to "excellent") on their essays, it is not surprising that very few of them exhibited high levels of writing anxiety, which tends to occur in persons who are less skilled at writing (Daly, 1978). And, since only 5% of the subjects received a score of 4.0, it is not surprising that few subjects exhibited high levels of writer's block, which Rose (1984) has hypothesized as being positively correlated with writing quality. Again, it was the moderate range of scores, this time on writing quality, which may limit this study's generalizability and may have obscured some stronger or perhaps
even curvilinear relationships which may exist in reality among these constructs.

Agreement with hypothetical audience. It is not surprising that, out of 100 subjects, 87 subjects disagreed with state legislators that the legal drinking age for alcohol should be raised from 19 to 21, since most subjects were between the ages of 18 and 20 and would be affected by this change. And, since very few of the subjects were high self-monitors, it is not surprising that subjects were unaffected by the fact that the state legislators who allegedly would be reading subjects' essays might disapprove of subjects' disagreement with the proposed change.

Assessment of writing task. Most subjects felt very personally involved during the writing task. Rose (1984) has hypothesized that the more involved a writer feels, the more likely he or she will experience writer's block. However, as stated earlier, most subjects in the present investigation probably did not experience writer's block during the writing task. This may have been due to the anonymity factor, as well as to the fact that most subjects reported on the Writing Task Assessment that they thought the task was easy, rather than difficult or stressful, and most reported that they did not feel pressured, even though they also reported that a longer time period might have made the writing task easier. Future investigations might include a writing task which writers might find more stressful and which might involve greater complexity, both of which in turn might
induce higher levels of writer’s block (Greenberg & Tannenbaum, 1962; Rose, 1984).

**Statistical Analysis: Planned Comparisons**

Statistical analyses, both planned and post hoc, were conducted on the data gathered in the present investigation. There were 23 hypotheses generated in order to answer 8 research questions. To answer six of these research questions, correlational analyses were conducted in order to test 21 hypotheses. To answer two of the research questions, regression analyses were conducted in order to test 2 hypotheses. These research questions will be discussed in light of the statistical findings regarding these 23 hypotheses, and also in light of the various post hoc analyses which were conducted, including correlational analyses of the writing procrastination subscale on the Procrastination Assessment Scale-Students (PASS) with the measures of writer’s block and writing anxiety, a factor analysis of the Self-Monitoring Scale (SMS), correlational analyses of the derived SMS factors with measures of writer’s block and writing anxiety, and two sets of regression analyses, one with the derived SMS factors as predictor variables, and one with the five Writer’s Block Questionnaire (WBQ) subscales as predictor variables.

**Research question #1:** Does the Writer’s Block Questionnaire (WBQ) accurately measure writer’s block as a behavior (i.e., an inability to produce written communication)?
Research question #7: Does the Writer's Block Questionnaire (WBQ) accurately predict writer's block as measured by number of words written?

In order to answer the first research question, it was hypothesized that high scores on the WBQ would be strongly correlated with a low number of words written during the writing task period. Although there was a very slight negative correlation ($r = -.09$) between WBQ total scores and number of words written, this hypothesis was not supported. There may be several reasons for this finding. First, there were very few subjects who exhibited extremely high or low levels of writer's block, as measured by WBQ scores or by number of words written. This lack of extreme scores may have obscured a stronger negative correlation which might exist in another sample. Secondly, the topic chosen for the writing task may not have been similar enough to the types of writing tasks held in subjects' minds while responding to the WBQ. While subjects responded to the WBQ, if they were imagining a 20-page term paper to be evaluated by a university professor, their responses perhaps were different than if they had been imagining a 30-minute personal essay in which their identities would remain anonymous, as was the case with the writing task in the present investigation. If so, then it is not surprising that WBQ scores did not reflect adequately the number of words written during the writing task. Moreover, the low correlation between WBQ scores and number of words written might be due in part to the self-report nature of the
WBQ: In order to appear more favorably to the researcher, subjects may have responded to the WBQ in such a way as to obscure higher levels of writer's block. Furthermore, the lack of substantial correlation between self-report and behavioral measures is a finding which is not uncommon in psychological research (Walsh & Betz, 1985). And, in a simple linear regression, the fact that the WBQ predicted only .8% of the variance in number of words written would also support the idea that the WBQ may be measuring something different than is measured by number of words written.

Still another issue which may have contributed to this extremely low correlation between total WBQ scores and number of words written involves the problem of whether or not the WBQ actually measures writer's block. It could be that some of its items are measuring other constructs, or that the WBQ simply does not contain items which accurately reflect the concept of writer's block. Indeed, according to the results of some post hoc analyses, none of the five WBQ subscales achieved significant negative correlations with the number of words written: for the Lateness Subscale, \( r = -.14 \ (p < .16) \); for the Blocking Subscale, \( r = -.13 \ (p < .19) \); for the Attitudes Subscale, \( r = -.12 \ (p < .22) \); for the Strategies for Complexity Subscale, \( r = .08 \ (p < .43) \); and for the Premature Editing Subscale, \( r = .10 \ (p < .33) \).

In summary, it would appear that the Writer's Block Questionnaire does not correlate with or accurately predict the number of words written in response to a writing task. This could mean that neither
the WBQ nor number of words are accurate measures of writer’s block. Or perhaps the WBQ does accurately measure writer’s block, which in turn was not experienced by subjects in the present investigation, either because these subjects are not prone to writer’s block, or perhaps because the chosen topic did not elicit writer’s block.

Research Question #2: Can one differentiate the construct of writer’s block as a behavior [i.e., an inability to produce written communication, as measured by number of words written and by scores on the Writer’s Block Questionnaire (WBQ)] from the constructs of writing anxiety [an attitudinal aversion toward and avoidance of the writing process, as measured by the Writing Apprehension Scale (WAS) and by the Thompson Writing Attitude Survey (TWAS)], and procrastination [intentional delay in completing both written and other types of tasks, as measured by the Procrastination Assessment Scale—Students (PASS)]?

In order to answer Research Question #2, six hypotheses were tested. Number of words written and total scores on the WBQ were first correlated with WAS, TWAS, and PASS scores, and then subscale scores on the WBQ were correlated with WAS, TWAS, and PASS scores. It was hypothesized that, if writer’s block and writing anxiety are mutually exclusive, and if writer’s block and procrastination are mutually exclusive, then number of words written would attain significant positive correlations with WAS, TWAS, and PASS scores; however, all three correlations were nonsignificant and negative. Furthermore, it
was hypothesized that total WBQ scores would attain significant negative correlations with WAS, TWAS, and PASS scores. All three correlations were in fact significant positive correlations. The correlations of WBQ scores with scores on the two writing anxiety measures (with WAS scores, $r = .75$; with TWAS scores, $r = .72$) were much higher than the correlations of WBQ scores with the procrastination measure (with PASS scores, $r = .23$).

There are several possible explanations for these findings. It could be that the questionnaires designed to measure these three constructs actually overlap, e.g., the WBQ may tap some writing anxiety issues, or the WAS may tap some writer's block issues, or the TWAS may tap some procrastination issues. Upon closer scrutiny of some of the individual items in each scale, this overlap can be seen. For example, both the writer's block and the writing anxiety measures have items which ask whether subjects enjoy writing (item #1 on the WBQ, "Even though it is difficult at times, I enjoy writing"; item #15 on the WAS, "I enjoy writing"; and item #24 on the TWAS, "I enjoy writing when I have time"), whether they like to express their ideas or feelings by writing (item #6 on the WBQ, "I like having the opportunity to express my ideas in writing"; item #10 on the WAS, "I like to write my ideas down"; and item #4 on the TWAS, "It is a joy to transform feelings by writing onto a blank piece of paper"), whether they are uncomfortable when their writing is compared to that of others (item #2 on the WBQ, "I've seen some really good writing, and my writing doesn't match up to it"; item #24 on the WAS, "I don't think I write as well as most other
people"; and item #12 on the TWAS, "People think my writing is childish"), and whether they have trouble getting organized (item #15 on the WBQ, "There are times when I'm not sure how to organize all the information I've gathered for a paper"; item #21 on the WAS, "I have a terrible time organizing my ideas in a composition course"; and item #13 on the TWAS, "I can never seem to get my ideas organized"). Such items are so similar in meaning that they may obscure some of the real differences which may exist between writer's block and writing anxiety.

There are other possible explanations for the high correlations between the measures of writer's block and writing anxiety. It could be that these two constructs really are not separate entities, but are perhaps two dimensions of a broader construct. Or perhaps writer's block and writing anxiety are similarly related to a third correlate, such as evaluation anxiety or perfectionism. It may be that this hypothetical third correlate has created a spurious correlation between writer's block and writing anxiety. On the other hand, perhaps writer's block and writing anxiety are separate constructs, but are not measured adequately by the instruments used in the present research.

Although contrary to prediction, the significant positive correlation between the measures of writer's block and procrastination indicated a much weaker relationship than the one found between writer's block and writing anxiety. This weaker relationship is not surprising, given that the PASS taps items regarding procrastination in all academic areas (e.g., meeting with advisors), not just in writing
papers. However, even though the correlation was low ($r = .23$), it was statistically significant.

There are several possible explanations for this significant relationship. Again, it may be that the WBQ taps items which are related to procrastination, and vice versa. For example, the WBQ Lateness Subscale is comprised of only two items: item #4, "I have to hand in assignments late because I can't get the words on paper," and item #14, "I run over deadlines because I get stuck while trying to write my paper." The idea being tapped here relates to turning in papers late—something which procrastinators often must do as a result of delaying the writing task. And, again, it may be that a potential third correlate, turning in papers late, is causing a spurious correlation between writer's block and procrastination. It is also important to note that many subjects who reported on the WBQ that they do turn in papers late on a regular basis may think that they do so because they "can't [vs. 'won't'] get the words on paper" or because they "get stuck [vs. 'don't start'] while trying to write": In other words, subjects may prefer to think that they were unable to write (i.e., that they had writer's block) rather than thinking that they may have chosen not to write (i.e., that they had procrastinated).

On the other hand, it could very well be that the significant correlation between the WBQ scores and the PASS scores reflects a real trend: If writer's block is slightly correlated with academic procrastination in general, how strongly would writer's block be correlated with procrastination only when writing a paper? In a post
hoc analysis, a Pearson product-moment correlation coefficient of .41
(p < .0001) was found between WBQ scores and the writing
procrastination subscale of the PASS. This finding indicates that
writing procrastination is associated more strongly with writer’s block
than is procrastination in general. If this is an accurate measure of
the relationship between these two constructs, then one might speculate
that perhaps some persons are inclined to procrastinate on a writing
task because they have experienced writer’s block before, and since
they may fear becoming blocked again, they put off the task. On the
other hand, it may be that some procrastinators become blocked in the
writing process because they feel so anxious and pressured writing a
paper at the last minute that they cannot think very clearly: Studies
have shown that high anxiety does impede cognitive functioning
(Schwarzer, 1986). In either case, future researchers may want to
investigate further this relationship between writer’s block and
procrastination.

Because the scale measuring writer’s block which was used in the
present investigation appeared to tap ideas which were similar to those
tapped by items in the writing anxiety and procrastination measures, it
might be expected that some of the Writer’s Block Questionnaire (WBQ)
subscales might be more closely related to the writing anxiety or
procrastination measures than other WBQ subscales. Since so many of
the similar items between the WBQ and the two measures of writing that
anxiety were on the WBQ Attitudes Subscale, it might be expected that
scores on this scale would be positively correlated to a significant
degree with WAS and TWAS scores, an accurate prediction: \( r = .84, p < .0001 \) for WAS scores; \( r = .81, p < .0001 \) for TWAS scores. These results are not surprising, given the overlap in so many of the items on these scales.

Similarly, it might be expected that scores on the WBQ Lateness Subscale would be positively correlated with scores on the PASS, again, an accurate prediction: \( r = .28, p < .005 \). Although this correlation was not as strong as the one between the WBQ Attitudes scores and writing anxiety scores, it is not surprising, since the items on the Lateness Subscale do not directly tap procrastination, just the related notion of turning in papers late. However, what is interesting is that the WBQ Attitudes and Lateness Subscales' scores were more strongly correlated than the total WBQ scores were with the writing anxiety and procrastination measures, respectively. If these correlations reflect a true relationship among these constructs in the general population, then perhaps the WBQ may be used to diagnose writing anxiety and procrastination rather than writer's block.

Since the WBQ Attitudes and Lateness Subscales seemed to be more clearly related to writing anxiety and procrastination, respectively, one might wonder about the other three WBQ Subscales: Blocking, Premature Editing, and Strategies for Complexity. Since the items on these three scales appeared to be more closely related to actual behaviors which occur during a writing block (e.g., staring blankly at the page, searching for the perfect sentence before going on to the next one, or being unable to write because one cannot decide on a way
to organize a topic), it might be expected that scores on these three subscales would be more strongly correlated than total WBQ scores with the number of words written by subjects. However, this was not the case: Only scores on the Blocking Subscale achieved a stronger correlation with number of words written ($r = -.13$) than did total scores on the WBQ ($r = -.09$). Furthermore, although the correlation between Blocking Subscale scores and number of words written was negative, it was statistically nonsignificant. This lack of significance again may be due to the fact that, as subjects responded to the items on the WBQ, they may have been imagining a more difficult writing task (e.g., a 20-page term paper) than the one they had just written during the writing task. Or it may be just that the Blocking Subscale does not reflect the concept of writer’s block adequately.

The other two WBQ subscales which one might expect would achieve strong negative correlations with the number of words written by subjects were the Premature Editing and Strategies for Complexity Subscales. However, scores on these two subscales were positively correlated with number of words written, although to a statistically insignificant degree ($r = .10, p < .33$ for the Premature Editing Subscale; $r = .08, p < .43$ for the Strategies for Complexity Subscale). These findings are difficult to explain. It could be that these two subscales do not tap items which are directly related to writer’s block. Or perhaps subjects reported very low levels of writer’s block on these subscales because they were thinking of the relatively easy writing topic to which they had just responded, a topic about which
perhaps these subjects just did not have much to say except to simply agree or disagree with the topic. Or perhaps subjects who reported high levels of writer's block on these scales were doing so while imagining a difficult writing task, one which was very different than the one required during the present investigation.

In spite of these low positive correlations between these two WBQ subscales and the behavioral measure of writer's block, the results of several planned and post hoc regression analyses suggest that the WBQ does have some utility for the practitioner. The possibility exists that some of the WBQ subscales might be used to predict writing anxiety or writing procrastination while other subscales could be used to predict writer's block. While all five of the WBQ subscales taken together accounted for 10.5% of the variance in number of words written—the behavioral measure of writer's block—only one of these subscales, Strategies for Complexity, accounted for a statistically significant amount of variance: 4.1% (p < .04). This subscale, along with the Blocking and Premature Editing Subscales, might be expected to serve as a stronger predictor of scores on the behavioral measure of writer's block, since it, like these other two subscales, appeared to tap items which reflected the behaviors associated with an inability to write (e.g., not being able to write a word or a sentence). On the other hand, it might be expected that the other two WBQ subscales, Attitudes and Lateness, would be stronger predictors of scores on the behavioral measure of writer's block, since these two scales seemed to
include items which appeared to be more closely related to writing anxiety and procrastination, respectively.

Among the three WBQ subscales which might be expected to serve as better predictors of scores on the behavioral measure of writer's block, two of them did account for more variance in number of words written than did the other two subscales. As expected, the Strategies for Complexity Subscale accounted for 4.1% of the variance, and the Premature Editing Subscale accounted for 2.7% of the variance. On the other hand, the Attitudes and Lateness Subscales accounted for less variance: 1.7% and 1.6%, respectively. The Blocking Subscale accounted for the same amount of variance as the Attitudes Subscale: 1.7%.

These results suggest that two of the WBQ subscales, Strategies for Complexity and Premature Editing, may be better predictors of writer's block than the other three subscales. It may be that these two subscales describe more closely the actual behaviors involved with a writer's block: striving for a way to deal with organizing a complex topic and editing prematurely during the composing process at the expense of one's flow of ideas. The low percentage of variance in number of words written accounted for by the Blocking Subscale may be explained by the notion that perhaps this subscale merely describes the results of such blocking behaviors (rather than describing the behaviors per se) such as cognitive complexity problems and premature editing, e.g., item #7 on the Blocking Subscale, "There are times when I sit at my desk for hours, unable to write a thing." Thus, it appears
that, among the five WBQ subscales, the Strategies for Complexity and Premature Editing Subscales may be the better predictors of writer’s block, perhaps since they tap items more closely related to the behaviors associated with writer’s block, if there is such a phenomenon.

As suggested earlier, perhaps some of the other WBQ subscales might be used as predictors of writing anxiety or procrastination, since these other subscales seem to tap items more closely related to writing anxiety or procrastination. Several post hoc regression analyses would support these possibilities. Taken together, all five WBQ subscales accounted for 73% of the variance in WAS scores, 70% of the variance in TWAS scores, and 16% of the variance in PASS scores. However, taken individually, it appears that, among the five WBQ subscales, the Attitudes Subscale is the best predictor of writing anxiety, while the Lateness Subscale is the best predictor of procrastination. More specifically, the Attitudes Subscale was the only one of the five subscales which accounted for a statistically significant amount of variance in WAS scores (28%, p < .0001). The other four subscales accounted for nonsignificant amounts of variance in WAS scores: Blocking, .6%; Strategies for Complexity, .5%; Lateness, .03%; and Premature Editing, .01%. Similar results occurred in the regression analysis with TWAS scores as the criterion variable. While the Attitudes Subscale accounted for a highly significant amount of variance in TWAS scores (28%, p < .0001), all other WBQ Subscales except the Blocking Subscale accounted for nonsignificant amounts of
variance. The Blocking Subscale accounted for only 3.1% of the variance ($p < .003$), while the other three subscales accounted for even smaller amounts of variance: Strategies for Complexity, 2%; Premature Editing, .05%; and Lateness, .0002%. It may not be surprising that the Blocking Subscale predicted a statistically significant, albeit small amount of variance in TWAS scores, since two items on this subscale seem to reflect one's feelings about how difficult it is to write, an idea which seems more related to one's aversive attitude toward writing (i.e., writing anxiety) than to one's inability to write (i.e., writer's block): item #17, "It is awfully hard for me to get started on a paper," and item #22, "There are times when I find it hard to write what I mean."

Thus, it appears that the WBQ Attitudes Subscale can predict a significant amount of variance in writing anxiety scores—much more so than the other four WBQ subscales. But can any of the WBQ subscales predict levels of procrastination as well? The results of a post hoc regression analysis suggest that the WBQ Lateness Subscale may be able to do just that. In an analysis with PASS scores as the criterion variable, only the Lateness Subscale accounted for a statistically significant, albeit small amount of variance in PASS scores: 7.7% ($p < .004$). The other four WBQ subscales accounted for nonsignificant amounts of variance: Premature Editing, 2.2%; Strategies for Complexity, 1.1%; Attitudes, .9%; and Blocking, .1%. The fact that only the Lateness Subscale accounted for a statistically significant but small amount of variance suggests two possibilities: one, that the
constructs of writer's block and procrastination are essentially too
different to predict one from the other, and, too, that the idea of
turning in papers late—the concept tapped by the two items on the
Lateness Subscale—is simply an intermediary construct which reflects a
behavior common among persons who become writing blocked and persons
who procrastinate when writing a paper.

In any event, it would seem important to any practitioner that one
questionnaire, the WBQ, might be used to screen clients who identify
themselves as suffering from writer's block. As an initial screening
device, the WBQ could be used to assess whether clients are really
suffering from writer's block (as indicated by Strategies for
Complexity and Premature Editing Subscale scores), writing anxiety (as
indicated by Attitudes Subscale scores), or procrastination (as
indicated by Lateness Subscale scores). Certainly, since some of these
subscales predict relatively small amounts of variance in their
criterion variables, the practitioner would do well to further question
clients and/or administer further diagnostic questionnaires. However,
as an initial screening device, the WBQ may be valuable for therapists
as well as educators seeking to determine whether persons are suffering
from writer's block, writing anxiety, procrastination, or some
combination of these three problems.

Research Question #3: Do the Writing Apprehension Scale (WAS) and
Thompson Writing Attitude Survey (TWAS) clearly differentiate the
construct of writing anxiety (an attitudinal aversion toward the
writing process) from the construct of procrastination (an intentional delay in completing both written and other types of tasks), as measured by the Procrastination Assessment Scale—Students (PASS)?

In order to answer this question, scores on the WAS and TWAS were correlated with scores on the PASS. It was hypothesized that, if writing anxiety and procrastination are mutually exclusive, then there would be significant negative correlations between scores on the PASS and scores on the WAS and TWAS. Neither hypothesis was supported: the correlation between PASS and WAS scores was .16, (p < .11), and the correlation between PASS and TWAS scores was .28 (p < .005). These positive correlations may indicate that the WAS and TWAS are not pure measures of writing anxiety, or that the PASS is not a pure measure of procrastination. Or perhaps writing anxiety is a specific type of procrastination, or is a result of procrastination when writing a paper, or even a cause of writing procrastination.

Still another possibility exists: Perhaps writing anxiety and writing procrastination share a third correlate, such as anxiety, or even a set of other correlates. Some research would support these contentions. For example, Solomon and Rothblum (1984) found a small but statistically significant positive correlation between procrastination and trait anxiety (r = .13, p < .05). Furthermore, the results of ANOVAS comparing data from low and high procrastinators indicated that high procrastinators exhibited significantly more test anxiety, more state anxiety, and more anxiety-related physical symptoms
(e.g., headaches, dry mouth, hand shaking) as compared to low procrastinators (Rothblum, Solomon, & Murakami, 1986). Furthermore, in a factor analysis of the "reasons for procrastination" section contained in the PASS, Solomon and Rothblum (1984) found that 49% of the variance was due to one factor, fear of failure, and many of the items included in this factor were concerned with evaluation anxiety.

Similarly, Daly and M.D Miller (1975a, 1975b) have stated that writing anxiety is due to evaluation anxiety, since persons with writing anxiety are often less skilled at writing (Daly, 1978; Paigley, Daly, & Witte, 1981) and therefore are worried about being negatively evaluated. Other researchers have found that such low writing performance is related to higher levels of state anxiety (McCarthy & Meier, 1983). Furthermore, some researchers have found that high writing anxiety is correlated significantly with social anxiety ($r = .17$; Stafford & Daly, 1984) and, to a lesser degree, with trait anxiety ($r = .14$; Daly & Wilson, 1983). Thus it may be some form of anxiety which is behind the constructs of procrastination and writing anxiety, and which caused the significant correlation found between these two constructs in the present investigation.

Other shared correlates between procrastination and writing anxiety include self-esteem and self-efficacy. Solomon and Rothblum (1984) found a significant negative correlation between self-esteem and procrastination ($r = -.23$), while Daly and Wilson (1983) found a slight negative correlation between writing anxiety and self-esteem ($r = -.31$), and an even stronger negative correlation between writing
anxiety and writing-specific self-esteem \( r = -.73 \). Moreover, other researchers have found that high procrastinators have lower self-efficacy (Rothblum, Solomon, & Murakami, 1986) and tend to procrastinate because they lack self-confidence (Solomon & Rothblum, 1984). Similarly, the results of other research suggest that persons who have lower levels of writing performance—and therefore, at least theoretically, higher levels of writing anxiety—have lower levels of self-efficacy and lower levels of self-confidence about their writing (Dickson & Markman, 1985; Freedman, 1983; McCarthy & Meier, 1983; Meier, McCarthy, & Schmeck, 1984; Powell, 1984). Furthermore, Daly and M.D. Miller (1975b) found that persons with high writing anxiety reported less success in writing performance and lower expectations of success in future writing courses. Thus, it may be that low self-esteem, low self-efficacy, and low self-confidence are traits which are shared by persons who are high in writing anxiety and persons who tend to procrastinate.

Still another possible explanation exists for the significant positive correlation found between writing anxiety and procrastination in the present investigation. In a factor analysis of the reasons for writing procrastination segment of the PASS, Solomon & Rothblum (1984) found that a second factor, aversiveness of the task and laziness, accounted for 18% of the variance in PASS scores. Similarly, other researchers have shown that persons with high levels of writing anxiety found the writing process so aversive that they actively avoided choosing courses, academic majors, and occupations which involve a
great deal of writing (Daly & Shamo, 1976; 1978). Thus, it may be that persons who procrastinate when writing and persons who are highly anxious about writing are both actively engaged in the process of avoiding what they consider to be the aversive task of writing. In light of the empirical evidence relating both of these constructs to anxiety, it could be that writing anxiety results in writing procrastination. However, there may be reasons other than some form of anxiety which contribute to the problem of procrastination as well. Or, perhaps persons who procrastinate are prone to anxiety, and perhaps writing anxiety is just one manifestation of such general anxiety. In any event, writing procrastination seems strongly related to writing anxiety, as a series of post-hoc analyses conducted in the present investigation indicated. Scores on the Writing Procrastination Subscale of the PASS were strongly correlated with scores on the WAS ($r = .39, p < .0001$) and TWAS ($r = .43, p < .0001$).

**Research Question #4:** Is self-monitoring style, as measured by the Self-Monitoring Scale (SMS), related to writer's block and to writing anxiety?

In order to answer this question, scores on the SMS were correlated with the two measures of writer's block (number of words written and WBQ scores) and with the two measures of writing anxiety (WAS and TWAS scores). It was hypothesized that low self-monitors would be more likely to report higher levels of writer's block, since they are so concerned with expressing themselves while simultaneously preserving
their sense of integrity (Snyder, 1979), and when they must move beyond such egocentricity in their writing to make themselves understood to the reader, they may become blocked (Graves, 1985). On the other hand, it was hypothesized that high self-monitors would be more likely to report high levels of writing anxiety—which is supposedly due to fear of negative evaluation by others—since high self-monitors are very concerned with the impressions they make upon others (Snyder, 1979).

However, these hypotheses were not supported. All four of the correlations were statistically insignificant, and only two were in the predicted direction. The correlations between SMS scores and number of words written ($r = .03$) and WBQ scores ($r = -.09$) suggest no relationship between low self-monitors and higher levels of writer's block. (However, the statistically significant negative correlation between SMS scores and the WBQ Lateness Subscale ($r = -.28$, $p < .005$) might suggest that persons who are low self-monitors are less concerned about turning in late papers.) Additionally, the nonsignificant correlations found between SMS scores and the two measures of writing anxiety—the WAS ($r = -.03$) and the TWAS ($r = -.04$)—suggested no relationship between high self-monitors and low levels of writing anxiety.

One reason for these nonsignificant correlations which did not support the hypotheses might be the possibility that the SMS does not measure a unitary construct, as other researchers have suggested (Briggs, et al., 1980; Edelmann, 1985; Furnham & Capon, 1983; Gabrenya & Arkin, 1980; Miell & Le Voi, 1984; Tobey & Tunnell, 1981). To
further complicate matters, some researchers who have found three or four dimensions within the construct of self-monitoring have also found that these dimensions are sometimes correlated in opposite directions with other constructs. For example, while some researchers have found a negative correlation between self-esteem and the Other-Directedness factor of the SMS (Briggs et al., 1980), some also have found positive correlations between self-esteem and both the Extraversion factor of the SMS (Briggs et al., 1980) and total SMS scores (Wolfe et al., 1986). When one considers the fact that self-esteem has been negatively correlated with writing anxiety (Daly & Wilson, 1983), then the situation becomes even more complex. Is self-esteem, with which both writing anxiety and self-monitoring style have been significantly correlated, a mediating factor in the relationship between these other two constructs? If so, then perhaps the slight negative correlations found between the two measures of writing anxiety and the SMS in the present study might be explained by the stronger negative correlations which others have found between self-esteem and writing anxiety as well as between self-esteem and the Other-Directedness dimension of the SMS. However, the fact that the negative correlations between writing anxiety and self-monitoring style found in the present study were such slight correlations might be explained by the possibility that the SMS is not measuring a unitary construct, since other researchers did find positive, rather than negative, correlations between self-esteem and the Extraversion dimension of the SMS as well as between self-esteem and total SMS scores.
Four other constructs which have been correlated with both writing anxiety and self-monitoring style might also help to explain the very low negative correlations found between these two constructs in the present study. For example, writing anxiety has been positively correlated with social anxiety (Stafford & Daly, 1984), and other researchers have reported that self-monitoring style is positively correlated with social anxiety (Gabrenya & Arkin, 1980; Lennox & Wolfe, 1984). However, other researchers have reported that self-monitoring style is negatively correlated with social anxiety (Tobey & Tunnell, 1981; Tomarelli & Shaffer, 1985; Wolfe, Lennox, & Cutler, 1986), while others have reported no significant correlation at all between these two constructs (Snyder, 1979). Again, could it be that social anxiety is somehow related to both writing anxiety and self-monitoring style? And, could the conflicting results of such correlational analyses between social anxiety and self-monitoring style be due to the fact that the SMS does not measure a unitary construct?

The idea that the construct of self-monitoring style is not unidimensional is further supported by three other shared correlates between self-monitoring style and writing anxiety—public self-consciousness, private self-consciousness and shyness. While Snyder (1979) reported that self-monitoring style was not significantly correlated with either public or private self-consciousness, other researchers have found a significant positive correlation between self-monitoring style and public self-consciousness (Tobey & Tunnell, 1981; Tomarelli & Shaffer, 1985), as well as a positive correlation
between self-monitoring style and private self-consciousness. On the other hand, Daly and Wilson (1983) found a significant positive correlation between public self-consciousness and writing anxiety; and significant negative correlation between private self-consciousness and writing anxiety. It seems reasonable that persons who are high in public self-consciousness would also be high in self-monitoring style and experience high writing anxiety due to fear of negative evaluation. However, the conflicting results with the correlational analyses between self-monitoring style and private self-consciousness might also be explained by the possibility that self-monitoring style is not a unitary construct. Similarly, shyness, which has been negatively correlated with writing anxiety (Daly & Wilson, 1983), also has been correlated both negatively with total SMS scores (Stewart & Carley, 1984; Wolfe et al., 1986) and with the Extraversion factor of the SMS (Briggs et al., 1980) and positively with the Other-Directedness factor of the SMS (Briggs et al., 1980).

Since the hypotheses regarding the relationships of self-monitoring style with writer's block and with writing anxiety were not supported, a post hoc factor analysis of the SMS was conducted (see Table 11) to determine whether the SMS was measuring a multidimensional construct, and, if so, to allow for a correlational analysis to determine whether any of the dimensions of self-monitoring style were related to writer's block or to writing anxiety (see Table 13). Since most other researchers have consistently found the original three SMS dimensions first discovered by Briggs et al. (1980), a three-factor solution was
specified in the factor analysis conducted as part of the present investigation.

In spite of the small sample size, which would suggest the possibility of unstable factors, the three factors found were very similar to the three found by Briggs, et al. (1980; see Table 12): Other-Directedness, Acting, and Extraversion. However, the results of this factor analysis must be viewed with caution, due to the small sample size and to the possibility that the true-false format of the SMS may not be appropriate for a factor analysis (Briggs et al., 1980). The results of the post hoc correlational analyses of these three factors with writer's block and with writing anxiety indicated that the three SMS factors were not significantly correlated with the total measures of writer's block or with writing anxiety, and only half of these correlations were in the direction hypothesized between total SMS scores and writer's block and writing anxiety. The number of words written in response to the writing task, total WBQ scores, and WAS and TWAS scores were unrelated to these three dimensions of self-monitoring style.

To further delineate the relationship between self-monitoring style and such writing problems, post hoc correlational analyses were conducted to determine the relationships among these three SMS factors and the five WBQ subscales: Attitudes, Blocking, Lateness, Premature Editing, and Strategies for Complexity. Three of these WBQ subscales achieved slight but statistically significant negative correlations with two of the SMS factors: Other-Directedness with the Lateness
Subscale, $r = -.26, p < .008$; Acting with the Attitudes Subscale, $r = -.21, p < .04$; and Acting with the Strategies for Complexity Subscale, $r = -.23, p < .02$). Given the small sample size and resultant instability which may exist in the three SMS factors derived with the present sample, these modest correlations must be viewed with some caution.

However, one might speculate about the meaning of these correlations. The negative relationship between the WBQ Lateness Subscale and Other-Directedness might suggest that high self-monitors, who are very concerned about how others will perceive and evaluate them, may be less likely to turn in late papers because they are concerned about the impact of such tardiness on their self-presentation. Conversely, low self-monitors, who are less concerned with their self-presentation, may be less concerned about the impact of such tardiness on their instructors' perceptions. Furthermore, the negative relationship between Acting and the WBQ Strategies for Complexity Subscale might suggest that persons who are more adept at acting, that is, persons who are more adept at adopting a variety of other roles, also might be less likely to become blocked when facing a variety of writing personas and strategies for organizing and writing a complex paper. On the other hand, persons who are less skilled at acting might be less skilled at choosing among a variety of writing personas or strategies as well. Finally, the negative correlation between Acting and the WBQ Attitudes Subscale might suggest that persons who are less comfortable with putting on a temporary facade have more negative attitudes toward the writing process, perhaps
because writing papers often entails adopting a temporary facade in order to please a given instructor who may require a certain style or point of view which may not be congruent with the writer's style or point of view. On the other hand, persons who are comfortable in the role of actor may have a less negative attitude toward writing, even when it does entail adopting a temporary facade in order to please an instructor.

While only three of the 15 correlations among the three SMS factors and the five WBQ subscales achieved statistical significance, 10 of the 15 correlations were in the hypothesized direction of the relationship between total SMS scores and writer's block; that is, 10 of the 15 correlations, including the three correlations which achieved statistical significance, suggested a negative relationship between writer's block and self-monitoring style, as predicted. The fact that most of these correlations were not statistically significant is not surprising, since the three SMS factors found in the present investigation may have been unstable, given the small sample size and the true-false format of the SMS (Briggs et al., 1980). The fact that the trend was in the hypothesized direction in spite of these shortcomings would suggest that future research may be warranted.

Given the fact that five of the correlations between the three SMS factors and the five WBQ subscales were positive, while the other ten were negative, it is not surprising that total SMS scores and total WBQ scores were not significantly correlated. And, given these conflicting results, it is not surprising that total SMS scores were not
significantly correlated with the two writing anxiety measures, either. Furthermore, post hoc regression analyses also indicated that the three SMS factors did not account for large amounts of variance in the measures of writer's block or writing anxiety.

At this point, it seems safe to say that, if the SMS and the WBQ are not pure measures of self-monitoring style (as a unitary construct) and writer's block, respectively, then any correlations which are reported between these two scales may not accurately reflect any true relationship between these two constructs. And, if the SMS scale is not measuring a unitary construct, it may be that its multiple dimensions are differentially related to the different dimensions of writer's block (as represented by the five WBQ subscales) and to the construct of writing anxiety. Accordingly, any correlational analyses of self-monitoring style as a unitary construct with writer's block or with writing anxiety may yield inconclusive results. Scales which can measure these constructs in a more valid manner are needed before these constructs' interrelationships can be explored with any degree of certainty.

**Research Question #5:** Is quality of writing related to levels of writer's block and to levels of writing anxiety?

In order to answer this question, quality of writing was correlated with the two measures of writer's block (WBQ scores and number of words written) and with the two measures of writing anxiety (WAS and TWAS scores). Since Rose (1984) theorized that it is often the more skilled
writer who will experience higher levels of writer’s block, it was hypothesized that high writing quality would be correlated with higher levels of writer’s block. And, since some research has suggested that persons who are highly anxious about writing are often less skilled at writing (Daly, 1978; Faigley, Daly, & Witte, 1981), it was hypothesized that subjects in the present study who demonstrated low writing quality would also demonstrate higher levels of writing anxiety. The hypothesis concerning writer’s block was not supported, but the hypothesis concerning writing anxiety was supported.

Essentially, the results of these correlational analyses suggested that low writing quality is significantly correlated not only with higher levels of writing anxiety (with WAS scores, $r = -.29, p < .004$; with TWAS scores, $r = -.25, p < .01$), but also with higher levels of writer’s block (with WBQ scores, $r = -.21, p < .04$; with number of words written, $r = .55, p < .0001$). The significant negative correlations between writing quality and the two writing anxiety measures make sense in terms of Daly and M.D. Miller’s (1975a, 1975b) contention that writing anxiety tends to plague the less skilled writer who fears negative evaluation. But the similar negative relationship between writing quality and writer’s block is not so easily understood.

Perhaps writer’s block is also due to some negative fear of evaluation by the less skilled writer as well: In other words, perhaps writer’s block shares its origins with writing anxiety. Perhaps these two constructs are not as distinct as some theorists have suggested. On the other hand, it has already been noted in the present discussion
that the WBQ may not be a pure measure of writer's block, since some of its items are very similar to items included in the two writing anxiety measures, especially the items in the WBQ Attitudes Subscale, a subscale which achieved correlations of .84 with the WAS and .81 with the TWAS in the present investigation. Thus, it may be that the writing anxiety elements in the WBQ actually caused the negative correlation between WBQ scores and writing quality.

The correlation between writing quality and number of words written was more than twice as strong as the correlations attained by WBQ scores with writing quality. One might wonder if the judges who rated the essays for quality were influenced by the length of the essays when determining quality. Since the topic entailed giving detailed arguments, this may very well have been the case: Subjects who wrote more words may have presented more facts and details to support their views about the legal age for drinking alcohol, and thus their essays may have been rated more favorably.

Research Question #6: Is gender related to levels of writer's block and to levels of writing anxiety?

Since women tend to achieve higher ratings than men in terms of writing quality (Baker, 1954; Martin, 1972; Meier, McCarthy, & Schmeck, 1984; Stalnaker, 1941; Woodward & Phillips, 1967), Daly and M.D. Miller (1975b) hypothesized that men would report higher levels of writing anxiety due to a lack of positive reinforcement and expectations of failure. Daly and M.D. Miller did find that men reported higher levels
of writing anxiety as compared to women. Since similar results were found by other researchers (Dickson, 1978; Jeroski & Conry, 1981), it was hypothesized that men would report higher levels of writing anxiety in the present study as well. And, since Rose (1984) has contended that persons who write better are more likely to experience writer’s block, it was hypothesized that women, who have been found to achieve higher ratings in their writing performance, would report higher levels of writer’s block in the present investigation. The hypothesis concerning writing anxiety was partially supported, while the hypothesis concerning writer’s block was not supported at all.

Both of the measures of writing anxiety attained negative correlations with gender, which was coded "1" for women and "0" for men, although only one of the correlations (with TWAS scores, \( r = -.22, p < .02 \)) was statistically significant. (The correlation between gender and WAS scores was \( -.16, p < .12 \).) Thus, these data support the view that men are more prone to writing anxiety. On the other hand, the data did not support the view that women are more prone to writer’s block: If anything, the results, even though statistically insignificant, suggest that men are more likely to experience writer’s block, since men tended to report slightly higher WBQ scores (\( r = -.05, p < .64 \)) and tended to write fewer words (\( r = .17, p < .09 \)) than women. However, as discussed earlier, WBQ scores may reflect a certain element of writing anxiety, so perhaps this slight relationship between gender and writer’s block is reflective of the stronger relationship between gender and writing anxiety. And if the constructs
of writer's block and writing anxiety are indeed somehow related to each other (whether anxiety causes people to become blocked and/or persons who are blocked begin to exhibit anxiety), perhaps the correlation between gender and number of words written is also reflecting the stronger relationship between gender and writing anxiety.

Research Question #8: Of the four variables hypothesized as accurate predictors of writer's block—Writer's Block Questionnaire (WBQ) scores, Self-Monitoring Style (SMS) scores, quality of essays, and gender of writers—which of them will predict writer's block (as measured by number of words written) most accurately?

It was hypothesized that WBQ scores would account for more variance in number of words written than would the other three variables. This hypothesis was not supported: WBQ scores actually accounted for the least amount of variance (1.1%). Instead, quality of essays accounted for the largest percentage (27.5%) of the variance accounted for by the full model (31%). Very little variance was attributed to SMS scores (0.2%) or to gender of subjects (1.2%). Thus, it appears that, among these variables, only quality of writing is an accurate predictor of writer's block. Again, the possibility that the sheer length of an essay may have influenced the judges' ratings of quality cannot be ignored. And the fact that the WBQ may not be a pure measure of writer's block could help to explain the minuscule amount of variance attributed to WBQ scores.
Overall, the results of the present investigation suggest that writer's block, writing anxiety, and procrastination are not conceptually distinct from one another, at least in the small sample of university undergraduates who were involved in this study. Results in another sample might be different. Or perhaps the measures used in the present research are not conceptually valid, and may indeed overlap with one another. Still a third possibility for the finding that these three constructs are highly interrelated might be the idea that perhaps these are not independent constructs. It could be that some persons who tend to procrastinate in all areas of academic life might also procrastinate on a writing task. If so, then waiting until the last minute to write the paper could prove to be anxiety-provoking, especially if these persons fear a negative evaluation of their papers. Or perhaps these persons feel anxiety because they fear they will become writing-blocked, i.e., unable to write even when they finally make attempts to do so. In any event, the results of the present investigation suggest that these three constructs are related positively to one another. Research with different samples and more conceptually valid instruments would help to determine whether these positive relationships among these three constructs are truly representative of those which exist in reality.

Implications for the practitioner. Overall, the results of the present investigation suggest that, if a client reports suffering from "writer's block," the therapist would do well to find out exactly what
that means. Since writer's block was positively correlated with writing anxiety and with procrastination in the present study, it may be that these constructs overlap so much with one another that they cannot be differentiated clearly. However, the therapist does need to find out if the client is attempting but is unable to write (writer's block), actively avoids writing because he or she feels that writing is aversive since it may entail negative evaluation (writing anxiety), or delays beginning the writing process as part of a regular behavior pattern entailing delay in many types of tasks (procrastination). One quick assessment of these problems might entail the administration of the Writer's Block Questionnaire. With a cursory glance at the Blocking, Strategies for Complexity, and Premature Editing Subscales, the therapist could quickly estimate the level of writer's block. An examination of the Attitudes Subscale score might indicate the level of writing anxiety, while a quick glance at the Lateness Subscale score might suggest further inquiries about overall procrastination as a general behavior pattern.

Since both writing anxiety and procrastination have been related to anxiety, the therapist might wish to employ some anxiety management techniques (e.g., Richardson, 1976) as a part of therapy, if the client appears to suffer from these two problems along with writer's block. If the client suffers primarily from writer's block, then the therapist may wish to employ some cognitive restructuring techniques (e.g., Ellis & Harper, 1975) to reduce perfectionistic standards which may lurk behind premature editing behaviors and obsessive thinking regarding
organizational strategies. Since quality of writing was negatively related to writer's block and to writing anxiety, the therapist may wish to assist the client in finding a tutor to help polish writing skills in order to reduce levels of writer's block or writing anxiety. The therapist might also focus on raising the client's self-esteem, self-confidence, and self-efficacy levels, since these constructs have all been negatively correlated with writing anxiety.

Limitations and Directions for Future Research

Design and participants. The present study employed a within subjects correlational design. Since subjects were not pre-selected on the basis of whether they were high or low in terms of writer's block, writing anxiety, procrastination, or self-monitoring style, it is difficult to extrapolate the findings for such populations. Future researchers might do well to employ a between-subjects design by selecting a group of very high self-monitors and comparing them to a group of very low self-monitors in terms of writer's block, writing anxiety, or procrastination. Or researchers may choose to study a group of individuals suffering from severe writer's block, and compare them to a group of non-blocked individuals to assess levels of writing anxiety, procrastination, and self-monitoring style. Similarly, the interrelationships among these constructs could be studied by comparing groups of persons who were very high or very low in writing anxiety or in procrastination.

Since the sample employed in the present investigation contained a majority of Caucasian, male, college freshmen about 19 years of age,
the generalizability of the results is rather limited. Future investigations might include samples composed primarily of women, or samples composed of other racial or ethnic groups. Older persons might be studied, as well as non-student groups. Future researchers may even want to compare some of these groups to see any group differences in writer’s block, writing anxiety, procrastination, or self-monitoring style.

**Independent variables.** Since all of the independent variables were self-report, there is the possibility that subjects were more concerned with presenting themselves favorably than honestly. This social desirability factor (Badia & Runyon, 1982) may have obscured the fact that some subjects may have been higher in writer’s block, writing anxiety, procrastination, or self-monitoring style than they actually reported. Furthermore, some of these self-report measures may not be that valid. The SMS may not actually be measuring a unitary construct: There appear to be several dimensions of self-monitoring style. And some items on the WBQ are similar to certain items on the WAS and TWAS: This may indicate that these are not pure measures of two conceptually distinct concepts, writer’s block and writing anxiety. Future researchers may wish to employ questionnaires which can measure accurately the dimensions of self-monitoring style, writer’s block, and writing anxiety. A writer’s block survey might measure the behavior of being blocked, while a writing anxiety survey might measure the attitudes involved with feeling negatively toward writing.
Dependent variables. All of the dependent variables could be critiqued in terms of validity and/or reliability. Certainly the number of words counted is a reliable measure, but is it conceptually valid? Does it really measure writer's block per se, or is it merely a measure of one's verbosity? Future investigations might focus upon number of words written over time, perhaps during a one-week rather than 30-minute time period. On the other hand, assessment of writing quality and of agreement with hypothetical audience did not involve the highly reliable process of merely counting words: Much more subjectivity was involved in assessing these two variables. Future researchers may wish to employ more objective measurements. Finally, the Writing Task Assessment, intended to assess subjects' level of personal involvement and task difficulty, conveyed much face validity, but its conceptual validity and reliability are unknown. Future investigators may wish to employ an instrument with demonstrated reliability and validity.

Procedure. Since all subjects wrote their essays prior to responding to the self-report measures, they may have been fatigued by the fact that they had just been writing for 30 minutes, and some subjects may have discerned the true purpose of the investigation. If subjects were pre-selected on the basis of high or low scores on these self-report measures, then perhaps such fatigue could be avoided, and perhaps the writing task could be administered at another time amid other procedures so as to camouflage the real purpose of the experiment.
and therefore circumvent the high potential for demand characteristics which might cloud the results of the study.

The writing task itself may have influenced the study's results as well. Perhaps the topic was too easy: If a more complex task had been chosen, perhaps more persons would have experienced writer's block. Or if the topic had been of a more personal nature, perhaps subjects might have experienced more discomfort and therefore become blocked.

Conclusion

Overall, the results of the present investigation suggest that writer's block, writing anxiety, and procrastination are related constructs, at least as measured by the questionnaires used with the present sample. Whether this finding is due to the sample employed, the instruments used, or the constructs themselves cannot be determined unambiguously on the basis of this study. Whether or not the results would obtain with a clinical sample is an open question. The independence of the instruments used to measure the constructs is less debatable. The results of this study suggest that these instruments are not independent and may be measuring similar constructs. As to the constructs themselves, the results of this study suggest that there is less warrant to believe that these constructs are orthogonal. More definitive answers to the conceptual, psychometric, and clinical questions central to this study await further research.

Furthermore, in the present study, three variables were hypothesized as being helpful in differentiating the constructs of writer's block and writing anxiety: self-monitoring style, quality of
essays, and gender of subjects. However, most of these variables were not particularly helpful in differentiating writer's block from writing anxiety. Self-monitoring style was not related to either writer's block or writing anxiety. This could be due to the possibility that the Self-Monitoring Scale may not be unidimensional, especially since factors found via factor analysis on this scale have often achieved opposite correlations with other variables. Quality of writing also was not helpful in differentiating writer's block from writing anxiety: Quality was correlated negatively with both writer's block and writing anxiety. However, gender of subjects did help to differentiate writer's block from writing anxiety: On one of the writing anxiety measures, men did report significantly higher scores than women. However, these results must be viewed with some caution in light of the questionnable validity of the instruments employed in this study. Future investigations with more reliable measures may serve to clarify the relationships among these constructs.
APPENDICES
APPENDIX A

DEMOGRAPHICS QUESTIONNAIRE

Age____ Racial/Ethnic Origin_____________________

Sex____ Marital Status__________________________

Year in College:

Freshman____ Sophomore____ Junior____ Senior____ Graduate____

Academic Major____________________________________

Titles of English and Literature Courses taken in High School:

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

Titles of English and Literature Courses taken in College:

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____

________________________ Grade:____ Credit hrs.:____
Reason(s) for participation in this experiment: ____________________

______________________________________________________________________

______________________________________________________________________

______________________________________________________________________
APPENDIX B
PERSONAL REACTION INVENTORY

The statements below concern your personal reactions to a number of different situations. No two statements are exactly alike, so consider each statement carefully before answering. If a statement is TRUE or MOSTLY TRUE as applied to you, circle the word "TRUE" next to that statement. If a statement is FALSE or NOT USUALLY TRUE as applied to you, circle the word "FALSE" next to that statement.

It is important that you answer as frankly and as honestly as you can. Your answers will be kept in the strictest confidence.

TRUE FALSE 1. I find it hard to imitate the behavior of other people.

TRUE FALSE 2. My behavior is usually an expression of my true inner feelings, attitudes, and beliefs.

TRUE FALSE 3. At parties and social gatherings, I do not attempt to do or say things that others will like.

TRUE FALSE 4. I can only argue for ideas which I already believe.

TRUE FALSE 5. I can make impromptu speeches even on topics about which I have almost no information.

TRUE FALSE 6. I guess I put on a show to impress or entertain people.

TRUE FALSE 7. When I am uncertain how to act in a social situation, I look to the behavior of others for cues.

TRUE FALSE 8. I would probably make a good actor.

TRUE FALSE 9. I rarely need the advice of my friends to choose movies, books, or music.

TRUE FALSE 10. I sometimes appear to others to be experiencing deeper emotions than I actually am.

TRUE FALSE 11. I laugh more when I watch a comedy with others than when alone.

TRUE FALSE 12. In a group of people I am rarely the center of attention.
TRUE FALSE 13. In different situations and with different people, I often act like very different persons.

TRUE FALSE 14. I am not particularly good at making other people like me.

TRUE FALSE 15. Even if I am not enjoying myself, I often pretend to be having a good time.

TRUE FALSE 16. I'm not always the person I appear to be.

TRUE FALSE 17. I would not change my opinions (or the way I do things) in order to please someone else or win their favor.

TRUE FALSE 18. I have considered being an entertainer.

TRUE FALSE 19. In order to get along and be liked, I tend to be what people expect me to be rather than anything else.

TRUE FALSE 20. I have never been good at games like charades or improvisational acting.

TRUE FALSE 21. I have trouble changing my behavior to suit different people and different situations.

TRUE FALSE 22. At a party I let others keep the jokes and stories going.

TRUE FALSE 23. I feel a bit awkward in company and do not show up quite so well as I should.

TRUE FALSE 24. I can look anyone in the eye and tell a lie with a straight face (if for a right end).

TRUE FALSE 25. I may deceive people by being friendly when I really dislike them.
APPENDIX C
WRITING BEHAVIOR SURVEY

Below are 24 statements about what people do or how they feel when they write. Under each is a five-point scale describing degrees of agreement or disagreement with the statement. We would like you to circle the degree of agreement or disagreement that best describes your own writing behavior. For example, if the statement reads:

Like Hemingway, I write standing up.

and if you rarely or never write standing up, you should respond in the following way:

THIS DESCRIBES
WHAT I DO OR
HOW I FEEL:

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER
(90 to 100% of     (75% of    (50% of the    (25% of the    (0 to 10% of
the time)        the time)   time)         time)         the time)

If another statement reads:

I write with #2 pencils.

and if you sometimes do (that is, not always and not rarely but about half the time), you should respond:

THIS DESCRIBES
WHAT I DO OR
HOW I FEEL:

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER
(90 to 100% of     (75% of    (50% of the    (25% of the    (0 to 10% of
the time)        the time)   time)         time)         the time)

This questionnaire requires that you reflect on your writing behavior. Some items will be easy to answer, but others might be a little difficult because you'll have to analyze what you do by habit. It would probably be best to recall exactly what you did when you wrote a recent paper. This way you can report what you actually do, not what you wish you could do. Obviously, you will not be graded on this.
Therefore, you can feel free to candidly report what you do and feel when you write. Again, don't report what you would like to do and feel but what you actually do and feel. For that fact, as you work through the questionnaire you might realize that an earlier response wasn't right. If that happens, it is ok to go back and change your answer to make it more accurate.

1. Even though it is difficult at times, I enjoy writing.
   THIS DESCRIBES WHAT I DO OR HOW I FEEL:

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER
   (90 to 100% of  (75% of  (50% of the  (25% of the   (0 to 10% of
   the time) the time) time)       time)       the time)

2. I've seen some really good writing, and my writing doesn't match up to it.

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER

3. My first paragraph has to be perfect before I'll go on.

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER

4. I have to hand in assignments late because I can't get the words on paper.

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER

5. It is hard for me to write on topics that could be written about from a number of angles.

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER

6. I like having the opportunity to express my ideas in writing.

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER

7. There are times when I sit at my desk for hours, unable to write a thing.

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER

8. I'll wait until I've found just the right phrase.

   ALMOST ALWAYS    OFTEN    SOMETIMES    OCCASIONALLY    ALMOST NEVER
9. While writing a paper, I'll hit places that keep me stuck for an hour or more.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

10. My teachers are familiar with so much good writing that my writing must look bad by comparison.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

11. I have trouble figuring out how to write on issues that have many interpretations.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

12. There are times when it takes me over two hours to write my first paragraph.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

13. I think my writing is good.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

14. I run over deadlines because I get stuck while trying to write my paper.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

15. There are times when I'm not sure how to organize all the information I've gathered for a paper.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

16. I find myself writing a sentence then erasing it, trying another sentence, then scratching it out. I might do this for some time.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

17. It is awfully hard for me to get started on a paper.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER

18. Each sentence I write has to be just right before I'll go on to the next sentence.

ALMOST ALWAYS  OREN TEN  SOMETIMES  OCCASIONALLY  ALMOST NEVER
19. I find it difficult to write essays on books and articles that are very complex.

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER

20. I think of my instructors reacting to my writing in a positive way.

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER

21. Writing is a very unpleasant experience for me.

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER

22. There are times when I find it hard to write what I mean.

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER

23. I have trouble with writing assignments that ask me to compare and contrast or analyze.

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER

24. Some people experience periods when, no matter how hard they try, they can produce little, if any, writing. When these periods last for a considerable amount of time, we say the person has a writing block. Estimate how often you experience writer’s block.

ALMOST ALWAYS     OFTEN     SOMETIMES     OCCASIONALLY     ALMOST NEVER
APPENDIX D
WRITING ATTITUDE SURVEY

Below is a series of statements about writing. There are no right or wrong answers to these statements. Please indicate the degree to which each statement applies to you by circling whether you (1) strongly agree, (2) agree, (3) are uncertain, (4) disagree, or (5) strongly disagree with the statement. While some of these statements may seem repetitious, take your time and try to be as honest as possible. Thank you for your cooperation in this matter.

1. I avoid writing.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

2. I have no fear of my writing being evaluated.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

3. I look forward to writing down my ideas.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

4. I am afraid of writing essays when I know they will be evaluated.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

5. Taking a composition course is a very frightening experience.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

6. Handing in a composition makes me feel good.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

7. My mind seems to go blank when I start to work on a composition.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

8. Expressing ideas through writing seems to be a waste of time.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

9. I would enjoy submitting my writing to magazines for evaluation and publication.
   STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

180
10. I like to write my ideas down.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

11. I feel confident in my ability to clearly express my ideas in writing.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

12. I like to have my friends read what I have written.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

13. I'm nervous about writing.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

14. People seem to enjoy what I write.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

15. I enjoy writing.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

16. I never seem to be able to clearly write down my ideas.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

17. Writing is a lot of fun.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

18. I expect to do poorly in composition classes even before I enter them.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

19. I like seeing my thoughts on paper.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE

20. Discussing my writing with others is an enjoyable experience.

STRONGLY AGREE  AGREE  UNCERTAIN  DISAGREE  STRONGLY DISAGREE
21. I have a terrible time organizing my ideas in a composition course.
   STRONGLY AGREE    AGREE    UNCERTAIN    DISAGREE    STRONGLY DISAGREE

22. When I hand in a composition I know I'm going to do poorly.
   STRONGLY AGREE    AGREE    UNCERTAIN    DISAGREE    STRONGLY DISAGREE

23. It's easy for me to write good compositions.
   STRONGLY AGREE    AGREE    UNCERTAIN    DISAGREE    STRONGLY DISAGREE

24. I don't think I write as well as most other people.
   STRONGLY AGREE    AGREE    UNCERTAIN    DISAGREE    STRONGLY DISAGREE

25. I don't like my compositions to be evaluated.
   STRONGLY AGREE    AGREE    UNCERTAIN    DISAGREE    STRONGLY DISAGREE

26. I'm no good at writing.
   STRONGLY AGREE    AGREE    UNCERTAIN    DISAGREE    STRONGLY DISAGREE
APPENDIX E

WRITING REACTION QUESTIONNAIRE

Directions: Below are a series of statements about writing. There are no right or wrong answers to these statements. Please indicate the degree to which each statement applies to you by writing a number in the space at the left of each statement:

5 = strongly disagree
4 = disagree
3 = neutral or undecided
2 = agree
1 = strongly agree

1. Writing in a diary gives me a sense of having accomplished something with my day.

2. I always do well in English Composition.

3. When I write I can never find the right word.

4. It is a joy to transform feelings by writing onto a blank piece of paper.

5. Writing is not difficult for me.

6. I don’t feel I can find the right words to write what I want to say.

7. Writing enables me to search myself more deeply than talking does.

8. Writing is a chore for me.

9. When I have to do a writing assignment I panic.

10. I enjoy becoming involved with the flow of ideas in writing words.

11. When I hand in a paper in class I hide it in the bottom or middle of the stack.

12. People think my writing is childish.
13. I can never seem to get my ideas organized.

14. When I try to write I have trouble getting started.

15. I cannot satisfy the requirements of English teachers when I write.

16. When I want to solve a personal problem I write all the issues involved.

17. Writing helps me to decide what I think about a subject.

18. Writing is freeing.

19. When I am given a writing assignment I put off doing it until the last minute.

20. I like to write my feelings about things in personal writing.

21. I've always received good grades on writing assignments.

22. My teachers make positive comments on my papers about my writing.

23. Writing gives me a chance to convey my sense of reality.

24. I enjoy writing when I have time.

25. Discussing my writing with others is enjoyable.

26. People who write well are people who think clearly.

27. My writing makes sense to me, but not to my teachers.

28. I avoid writing.

29. Thinking about writing makes my mind go blank.

30. I don't like my peers to read my essays.

5 = strongly disagree

4 = disagree

3 = neutral or undecided

2 = agree

1 = strongly agree
APPENDIX F
PROCRASTINATION ASSESSMENT SCALE--STUDENTS

AREAS OF PROCRASTINATION
For each of the following activities, please rate the degree to which you delay or procrastinate. Rate each item on an "a" to "e" scale according to how often you wait until the last minute to do the activity. Then, indicate on an "a" to "e" scale the degree to which you feel procrastination on that task is a problem. Finally, indicate on an "a" to "e" scale the degree to which you would like to decrease your tendency to procrastinate on each task. Please indicate your answers by circling the appropriate letter.

I. WRITING A TERM PAPER

1. To what degree do you procrastinate on this task?

   Never  Almost Never  Sometimes  Nearly Always  Always
   Procrastinate  a   b   c   d   e

2. To what degree is procrastination on this task a problem for you?

   Not at all  Almost Never  Sometimes  Nearly Always  Always
   a problem  a   b   c   d   e

3. To what extent do you want to decrease your tendency to procrastinate on this task?

   Do not want  Somewhat  Definitely
   want to decrease  a   b   c   d   e

II. STUDYING FOR EXAMS

4. To what degree do you procrastinate on this task?

   Never  Almost Never  Sometimes  Nearly Always  Always
   Procrastinate  a   b   c   d   e

5. To what degree is procrastination on this task a problem for you?

   Not at all  Almost Never  Sometimes  Nearly Always  Always
   a problem  a   b   c   d   e
6. To what extent do you want to decrease your tendency to procrastinate on this task?

Do not want  Somewhat  Definitely
to decrease  b  c  d  e

III. KEEPING UP WITH WEEKLY READING ASSIGNMENTS

7. To what degree do you procrastinate on this task?

Never  Almost Never  Sometimes  Nearly Always  Always
Procrastinate  a  b  c  d  e

8. To what degree is procrastination on this task a problem for you?

Not at all  Almost Never  Sometimes  Nearly Always  Always
a problem  a  b  c  d  e

9. To what extent do you want to decrease your tendency to procrastinate on this task?

Do not want  Somewhat  Definitely
want to decrease  b  c  d  e

IV. ACADEMIC ADMINISTRATIVE TASKS: FILLING OUT FORMS, REGISTERING FOR
CLASSES, GETTING I.D. CARD, ETC.

10. To what degree do you procrastinate on this task?

Never  Almost Never  Sometimes  Nearly Always  Always
Procrastinate  a  b  c  d  e

11. To what degree is procrastination on this task a problem for you?

Not at all  Almost Never  Sometimes  Nearly Always  Always
a problem  a  b  c  d  e
12. To what extent do you want to decrease your tendency to procrastinate on this task?

<table>
<thead>
<tr>
<th>Do not want</th>
<th>Somewhat</th>
<th>Definitely want to decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
</tr>
<tr>
<td>d</td>
<td>e</td>
<td></td>
</tr>
</tbody>
</table>

V. ATTENDANCE TASKS: MEETING WITH YOUR ADVISOR, MAKING AN APPOINTMENT WITH A PROFESSOR, ETC.

13. To what degree do you procrastinate on this task?

<table>
<thead>
<tr>
<th>Never Procrastinate</th>
<th>Almost Never Procrastinate</th>
<th>Sometimes</th>
<th>Nearly Always Procrastinate</th>
<th>Always Procrastinate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
<td>d</td>
<td>e</td>
</tr>
</tbody>
</table>

14. To what degree is procrastination on this task a problem for you?

<table>
<thead>
<tr>
<th>Not at all a problem</th>
<th>Almost Never a problem</th>
<th>Sometimes</th>
<th>Nearly Always a problem</th>
<th>Always a problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
<td>d</td>
<td>e</td>
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</table>

15. To what extent do you want to decrease your tendency to procrastinate on this task?

<table>
<thead>
<tr>
<th>Do not want</th>
<th>Somewhat</th>
<th>Definitely want to decrease</th>
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<td>a</td>
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<tr>
<td>d</td>
<td>e</td>
<td></td>
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</tbody>
</table>

VI. SCHOOL ACTIVITIES IN GENERAL

16. To what degree do you procrastinate on this task?

<table>
<thead>
<tr>
<th>Never Procrastinate</th>
<th>Almost Never Procrastinate</th>
<th>Sometimes</th>
<th>Nearly Always Procrastinate</th>
<th>Always Procrastinate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
<td>d</td>
<td>e</td>
</tr>
</tbody>
</table>

17. To what degree is procrastination on this task a problem for you?

<table>
<thead>
<tr>
<th>Not at all a problem</th>
<th>Almost Never a problem</th>
<th>Sometimes</th>
<th>Nearly Always a problem</th>
<th>Always a problem</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
<td>d</td>
<td>e</td>
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</tbody>
</table>
18. To what extent do you want to decrease your tendency to procrastinate on this task?

<table>
<thead>
<tr>
<th>Do not want to decrease</th>
<th>Somewhat want to decrease</th>
<th>Definitely want to decrease</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
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<td>e</td>
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</tbody>
</table>

**REASONS FOR PROCRASTINATION**

Think of the last time the following situation occurred: It's near the end of the quarter. The term paper you were assigned at the beginning of the quarter is due very soon. You have not begun work on this paper. There are reasons why you have been procrastinating on this task.

Rate each of the following reasons on a 5-point scale according to how much it reflects why you procrastinated at the time. Circle the letter which best describes the degree to which the reason explains your procrastination at the time.

Use the scale:

<table>
<thead>
<tr>
<th>Not at all reflects why I procrastinated</th>
<th>Somewhat reflects why I procrastinated</th>
<th>Definitely reflects why I procrastinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
</tr>
<tr>
<td></td>
<td>d</td>
<td>e</td>
</tr>
</tbody>
</table>

19. You were concerned the professor wouldn’t like your work.

<table>
<thead>
<tr>
<th>Not at all reflects why I procrastinated</th>
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<th>Definitely reflects why I procrastinated</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>b</td>
<td>c</td>
</tr>
<tr>
<td></td>
<td>d</td>
<td>e</td>
</tr>
</tbody>
</table>

20. You had a hard time knowing what to include and what not to include in your paper.

<table>
<thead>
<tr>
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<th>Definitely reflects why I procrastinated</th>
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<td>b</td>
<td>c</td>
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<tr>
<td></td>
<td>d</td>
<td>e</td>
</tr>
</tbody>
</table>

21. You waited until a classmate did his or hers, so that he/she could give you some advice.

<table>
<thead>
<tr>
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<th>Definitely reflects why I procrastinated</th>
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<tbody>
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<td>c</td>
</tr>
<tr>
<td></td>
<td>d</td>
<td>e</td>
</tr>
</tbody>
</table>

22. You had too many other things to do.

<table>
<thead>
<tr>
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<th>Definitely reflects why I procrastinated</th>
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<tr>
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<td>c</td>
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<tr>
<td></td>
<td>d</td>
<td>e</td>
</tr>
</tbody>
</table>
23. There's some information you needed to ask the professor, but you felt uncomfortable approaching him/her.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

24. You were worried you would get a bad grade.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

25. You resented having to do things assigned by others.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

26. You didn't think you knew enough to write the paper.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

27. You really disliked writing term papers.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

28. You felt overwhelmed by the task.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

29. You had difficulty requesting information from other people.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

30. You looked forward to the excitement of doing this task at the last minute.

\[\begin{array}{cccc}
\text{Not at all reflects why I procrastinated} & \text{Somewhat reflects why I procrastinated} & \text{Definitely reflects why I procrastinated}
\end{array}\]

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

31. You couldn't choose among all the topics.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]

32. You were concerned that if you did well, your classmates would resent you.

\[\begin{array}{cccc}
\text{a} & \text{b} & \text{c} & \text{d} & \text{e}
\end{array}\]
33. You didn't trust yourself to do a good job.
   a   b   c   d   e
34. You didn't have enough energy to begin the task.
   a   b   c   d   e
35. You felt it just takes too long to write a term paper.
   a   b   c   d   e
36. You liked the challenge of waiting until the deadline.
   a   b   c   d   e
37. You knew that your classmates hadn't started the paper either.
   a   b   c   d   e
38. You resented people setting deadlines for you.
   a   b   c   d   e
39. You were concerned you wouldn't meet your own expectations.
   a   b   c   d   e
40. You were concerned that if you got a good grade, people would have
    higher expectations of you in the future.
   a   b   c   d   e
41. You waited to see if the professor would give you some more
    information about the paper.
   a   b   c   d   e
42. You set very high standards for yourself and you worried that you
    wouldn't be able to meet those standards.
   a   b   c   d   e
43. You just felt too lazy to write a term paper.
   a   b   c   d   e
44. Your friends were pressuring you to do other things.
   a   b   c   d   e
APPENDIX G

Writing Task

Like many other states across the country, Ohio is considering raising the legal drinking age for alcohol from 19 to 21. Many people feel quite strongly about this proposed change. Some support this change, while others are opposed to this change in the legal drinking age.

We would like you to write a short essay on whether or not you feel that the legal drinking age for alcohol should be raised to 21. Try to be as organized and persuasive as possible: The best essays will be sent directly to Ohio legislators who are directly involved with the drinking age legislation.

In order to provide fair competition for ratings as best essays, only 30 minutes will be allotted for you to complete your essay.

Please begin your essay in the test booklet provided. The experimenter will notify you when the 30-minute time period is over.
APPENDIX H

Holistic Evaluation of Student Writing

Holistic evaluation of writing is a guided procedure for sorting or ranking written discourse. In the kind of holistic evaluation we will do today, the rater assigns a single grade to a piece of writing as a whole. The grading should occur quickly and impressionistically, the rater "applying" a predetermined set of criteria "holistically" to the discourse. The rater does not make marks or corrections in the paper. All she does is assess the quality of the writing in light of the evaluative criteria, spending no more than two or three minutes per paper and giving each piece of writing a number grade. We will use the following scale:

4 = excellent
3 = high
2 = moderate
1 = poor

When reading the essays, consider each of the following general criteria, giving each of the four areas comparable weight:

Ideas
Organization
Style
Grammar and Mechanics

As you read the essays in the sampling, try to get an impression of whether the paper as a whole falls into a category of 1, 2, 3, or 4. Then place a grade of 1, 2, 3, or 4 on the scoring sheet to the right of the appropriate essay title. Do not give any split grades to the essays in the sample. If you go back to an essay you have graded and decide to change the grade, do not cross out the original grade; instead, use a red pen and record the revised grade to the immediate right of the original grade.
APPENDIX H (cont.)

Holistic Scoring Criteria

IDEAS
Ideas themselves are insightful.
Ideas are rational or logical.
Ideas are creative or original.
Ideas are expressed with clarity.

ORGANIZATION
There is a thesis.
Order of thesis idea is followed throughout the essay.
Thesis is adequately developed.
Every paragraph is relevant to the thesis.
Each paragraph has a controlling idea.
Each paragraph is developed with relevant and concrete details.
The details that are included are well ordered.

STYLE
The word choice is rich, varied, and appropriate.
The sentence structures are rich, varied, and appropriate.
The sentences flow smoothly. They are not awkward.
The writer achieves an appropriate, consistent, effective voice.

GRAMMAR AND MECHANICS
There are serious punctuation errors.
Punctuation errors are excessive.
There are errors in use of pronouns.
There are errors in use of modifiers.
There are distracting errors in word usage.
There are many misspellings.

[Adapted from Cohen, 1973]
APPENDIX I

Writing Task Assessment

Below is a series of questions regarding your feelings about the writing task which you just completed. Please respond to each item by placing a check mark in the space which most accurately reflects your feelings.

1. I felt pressured during this writing task.
   very much so / / / / / / / / / / / / / not at all

2. I thought this writing task was easy.
   very much so / / / / / / / / / / / / / not at all

3. I felt personally involved in this writing task.
   very much so / / / / / / / / / / / / / not at all

4. This was a difficult topic for me to write about.
   very much so / / / / / / / / / / / / / not at all

5. I felt this writing task was stressful.
   very much so / / / / / / / / / / / / / not at all

6. This writing task would have been easier for me if I had had more time to write.
   very much so / / / / / / / / / / / / / not at all

If there are any additional comments which you would like to add to express your reactions to this writing task, please write them below.

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APPENDIX J

Explanation of Need for Questionnaires

In attempting to assess students’ attitudes about the legal drinking age, we are also concerned about the ways in which you approach the writing process. We would like to know if your feelings and attitudes about the writing process have affected your ability to express your opinions today. The questionnaires which you are about to fill out are designed to assess some of your feelings and attitudes about written expressions and opinions.
APPENDIX K

Debriefing Statement

Although we are interested in your opinions about the legal drinking age, the actual purpose of this experiment was to examine the incidence of writer's block, writing anxiety, and procrastination among college students. Since many people are unable to write papers which are very important to them, we picked a topic which we feel is of importance to undergraduate students, so that we could see if many students experienced writer's block today. If we can begin to understand why some people experience writer's block and why some do not, then we can begin to treat the problem of writer's block much more effectively. Although we will not be sending any of your essays to the state legislators who are involved with the drinking age law, we felt it was necessary to say that we were going to send your essays to such powerful persons in order to assist you in becoming truly involved with this writing task, since high task involvement is one possible source of writer's block which we are studying in order to improve treatment for this problem. The problem of procrastination is a related issue which we are attempting to differentiate from writer's block. If you feel that you suffer from writer's block and/or from procrastination and would like further assistance in dealing with these problems, please contact the experimenter, Karen Peterson, at 422-5766. Thank you again for your participation in this experiment. Are there any questions?
LIST OF REFERENCES


Bloom, L.Z. (1985). Anxious writers in context: Graduate school and beyond. In M. Rose (Ed.), When a writer can't write (pp. 119-133). New York: Guilford Press.


Daly, J.A. (1985). Writing apprehension. In M. Rose (Ed.), When a writer can't write (pp. 43-82). New York: Guilford Press.


