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I am submitting herewith a dissertation written by John S. Verble entitled "Self-Management, Time-Management, and Personality Type." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the Degree of Doctor of Philosophy, with a major in Education.

  
Robert L. Williams  
Major Professor

We have read this dissertation and  
recommend its acceptance.

  
Dr. Gary Klukken

  
Dr. Kathy Lawler

  
Dr. Charles Thompson

Accepted for the Council:

  
Associate Vice Chancellor and  
Dean of the Graduate School

**Self-Management, Time-Management,  
and Personality Type**

**A Dissertation  
Presented for the  
Doctor of Philosophy Degree  
The University of Tennessee**

**John S. Verble**

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## DEDICATION

This dissertation is dedicated to Virginia G. Coffman, my aunt who passed away during the research for this dissertation. Even though she was handicapped at a young age, she never looked at what she couldn't do, but what she could. She modeled for me kindness, compassion, warmth, and an overall positive attitude toward life. Her example will never, ever die.

Don't ever give up working toward a reasonable goal in life.

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## ABSTRACT

The relationships between self-management, time-management, and personality types and dimensions were examined in this study. The sample consisted of 347 undergraduate and graduate students ranging in age from 18 to 53. Most of the subjects ( $N=296$ ) came from an undergraduate course in Psychoeducational Issues in Human Development, which was organized along self-directed lines. The remaining subjects ( $N=51$ ) came from an undergraduate course entitled Exploring Majors and Careers. A separate part of the study was conducted on a sample of 77 undergraduate students to examine the test-retest reliability of the TMQ.

The subjects were given the Time Management Questionnaire (TMQ), Lifestyle Approaches Inventory (LSA), and Myers-Briggs Type Indicator (MBTI). Additionally, the Marlowe Crowne instrument was administered to measure social desirability response tendencies. The TMQ, LSA, and MBTI were administered to intact classes by the experimenter and other members of a self-management research team. Students were given the option of refusing to participate in the study without any penalty. Nearly all elected to participate. The TMQ, LSA, MBTI, and Marlowe Crowne were subsequently scored by trained graduate students.

The results showed that the TMQ is a relatively reliable instrument for assessing time management perspectives. The Short Range Planning factor yielded the highest test-retest reliability (.85) and Long Range Planning the lowest (.52). All of the TMQ factors were significantly related to all the LSA factors. The LSA total was most strongly related to the Time Attitudes factor of the TMQ, and the TMQ total was most strongly related to the Timeliness of Task Accomplishment factor of the LSA.

Both the TMQ and the LSA factors showed relatively strong and consistent correlations with the Judging-Perceiving dimension of the MBTI. Some of the LSA and TMQ factors were also significantly (but weakly) correlated with the Extraversion-Introversion and Sensing-Intuition dimensions of the MBTI. However, these latter correlations accounted for a very small percentage of the variance in the comparison variables. Stepwise multiple regression analyses revealed that the MBTI dimensions (especially the JP dimension) were more predictive of the TMQ-Total than of the LSA Total.

The MBTI dimensions that most distinguished the Myers-Briggs types obtaining the highest and lowest scores on the LSA were JP and SN. Apparently, individuals who prefer to be realistic and practical and who emphasize planning and organization are better self-managers than those who prefer

imaginative possibilities and who emphasize spontaneity and flexibility.

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## CHAPTER I

### INTRODUCTION

The purpose of this study was to evaluate the relationship of self-management and time-management to personality type. The instruments used to evaluate these constructs were the Lifestyle Approaches Inventory (LSA), the Time-Management Questionnaire (TMQ) and the Myers-Briggs Type Indicator (MBTI).

The first of these instruments, the LSA, was used as the measure of self-management for this study. This brief self-report instrument, developed by Williams, Moore, Pettibone, and Thomas (1992), assesses the extent to which an individual applies self-management practices in his or her daily life.

The LSA was derived from the cognitive and behavioral concepts of self-management included in the text Manage your Life (Williams & Long, 1991). These authors extensively investigated the self-management research during the past 20 years. Williams et al. (1992) integrated the concepts from this self-management research literature into an overall measure of self-management, the Lifestyle Approaches Inventory (LSA).

Good self-management as measured by the LSA has been correlated with a wide array of mental and physical health variables (Williams et al., 1992). For example, the self-reported use of self-management techniques has been

positively related to an optimistic orientation to living, physical health habits, and internal locus of control (Williams et al., 1992).

The second measure used in this study, the TMQ, is a brief self-report instrument that assesses Short-Range Planning, Time Attitudes, and Long-Range Planning. The concepts were drawn from research on time-management generated by Lakein (1973), Hanel (1981), Hall and Hursch (1982), Britton and Glynn (1989), and Britton and Tesser (1991). The actual TMQ was developed by Britton and Tesser (1991).

Although time-management and self-management both relate to the organization and use of one's personal resources, they do have some conceptual differences. For example, time-management represents an approach to the organization and use of time that maximizes one's effectiveness. In contrast, self-management represents more the ability to formulate and attain important personal goals.

Good time-management skills have been related to a number of positive outcomes. For example, time-management techniques have been used to lower anxiety (Lang, 1992), improve academic achievement (Britton & Tesser, 1991), and reduce stress in a group of dental hygiene professionals. (Lang, Gilpin, & Gilpin, 1990). Additionally, time-management strategies have been associated with reduced

levels of stress and an increase in marital adjustment among married couples (McLaughlin, Cormier, S., & Cormier, W., 1988), and with successful stress management among alcoholism treatment personnel (Stillson, White, & Harris, 1986). In sum, time-management has been associated with increased efficiency, decreased stress, and improved health (Schuler, 1979).

The kindred concepts of self-management and time-management may be better understood by examining their relationship to personality types and dimensions. It may be that self-management and time-management are closely linked to certain personality variables, or that interventions predicated on these concepts would be more effective for certain personality types than others. The Myers-Briggs Type Indicator (MBTI) was used in this study to assess personality variables that might potentially be related to self-management and time-management.

The Myers-Briggs Type Indicator is a widely used psychological instrument that assesses personality characteristics. The MBTI evolved from Jung's theory of personality (Jung, 1923). Jung differentiated personality characteristics into three types, Extraverted or Introverted, Thinking or Feeling, and Intuition or Sensation. Jung's theory was expanded by Myers and McCaulley (1985), who proposed that an additional type was needed to more completely represent Jung's theory. After

adding the Judgment vs. Perception dimension, Myers and Briggs developed the MBTI (Myers, 1962; Myers & McCaulley, 1985) to assess the four dimensions of the Jungian typology.

The MBTI can be used to discover, from self-report, subjects' basic preferences in regard to Extraversion or Introversion, Sensing or Intuition, Thinking or Feeling, and Judging or Perceiving. Each person who completes the MBTI receives a score on each of these four basic preferences, and these scores, taken together, represent an individual's type or way of being in the world.

The MBTI was designed to help individuals become more self-aware of their preferences for source of energy (Extraversion or Introversion), information gathering (Sensing or Intuition), decision making (Thinking or Feeling), and planning (Judging or Perceiving), and how these preferences affect their approach to work and life. The MBTI has been used in a wide variety of settings, including business, educational, governmental, medical and religious. The MBTI dimensions and types have been related to drug use, burnout, psychiatric hospitalization, and occupational interest.

While all of the MBTI scales have some elements that appear conceptually consistent with effective self-management and time-management, the Thinking-Feeling and the Judging-Perceiving dimensions appear to be most clearly related to self-management and time-management. Individuals

inclined toward Thinking of the Thinking-Feeling dimension prefer logic and impersonal decision-making, while those inclined toward Feeling are guided by their affective cues in making decisions. Individuals inclined toward Judging prefer order and control, while those inclined toward Perceiving prefer spontaneity and flexibility. Individuals evidencing a preference for Thinking and Judging are anticipated to be more effective self- and time-managers than those having a preference for Feeling and Perceiving.

The four dimensions of the Myers-Briggs can be combined in various ways to yield a total of sixteen different personality types. Some of these types are quite compatible with self-management and time-management, yet others appear unrelated to or incompatible with self-management and time-management. For example, the MBTI description of the Extraverted-Sensing-Thinking-Judging type as people-oriented, realistic, logical, and organized sounds quite similar to the Williams et al. (1992) description of an effective self-manager. In contrast, the Intraverted-Intuitive-Feeling-Perceiving type (INFP) is characterized as being self-absorbed, concerned about subjective possibilities, attuned to affective cues, and impulsive and failing to plan, tendencies that seem counter to self- and time-management.

### Statement of the Problem

Although MBTI personality dimensions, self-management skills, and time-management skills are all constructs that have been related to mental health variables, the relationships among these factors are unclear. In an effort to enhance educators' and mental health practitioners' ability to teach self-management and time-management skills, more must be known about the personality characteristics of those who are most amenable to using self-management and time-management strategies.

### Purpose of the Study

The primary purpose of this study was to assess the relationships among personality type, self-management, and time-management. It was anticipated that self-management variables would be closely related to time-management variables, and that both of these instruments would be predictive of some Myers-Briggs dimensions, especially Thinking-Feeling and Judging-Perceiving.

### Significance of the Study

If self-management and time-management are significantly correlated with specific personality dimensions, this information may be valuable in identifying individuals who would benefit most from training in self-management and time-management. The results of the study may also suggest that individuals with certain personality

types tend to be deficient in self-management and time-management skills.

### Limitations of the Study

1. The sample was restricted to 347 university students enrolled in Psychoeducational Issues in Human Development (Educational and Counseling Psychology 210) and Exploring Majors and Careers (Educational and Counseling Psychology 305) taught during the Fall and Spring semesters of the 1992 and 1993 calendar years. A secondary sample, used to assess the test-retest reliability of the Time-management Questionnaire (TMQ), was restricted to 77 university students enrolled in Physical Education 231, 244, and 249 taught during the Fall semester of 1993. Thus, the results of the study are primarily generalizable to college students.

2. The sample was further limited to those students in the above courses who volunteered to be a part of the MBTI, LSA, and TMQ study and the TMQ test-retest reliability study. Most students enrolled in the various classes, however, volunteered to participate. Nonetheless, students who volunteer for research of this type may be different from students in general.

3. Because all the instruments used in this study were of a self-report nature, they were susceptible to social desirability response tendencies.

### Assumptions of the Study

The following assumptions were made for this study:

1. College students are sufficiently self-aware to judge their own behaviors and preferences.
2. The instruments used in this study provide a catalyst for students to accurately report their personal tendencies.

### Definition of Terms

Self-management represents the ability to organize one's activities in a coherent fashion. It includes determining personal goals and then using cognitive and behavioral strategies to reach those goals.

Time-Management represents an approach to the organization and use of time that maximizes one's effectiveness. It includes short-range planning, a sense of control over one's time use, and long-range planning.

Personality Type represents an individuals's preferred modes for dealing with the world.

### Organization of the Study

Included in Chapter I are identification of the problem, statement of the purpose of the study, description of the significance of the study, identification of the limitations of the study, and definition of terms.

Included in Chapter II is a review of related literature.

Included in Chapter III is a discription of procedures used in this study: subject selection, four assessment devices, test administration, and scoring procedures.

Included in Chpater IV are the findings of the study.

Included in Chapter V are a conceptual analysis of the findings, presentation of conclusions, and recommendation for further research.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

One of the longstanding challenges of psychology has been to define the dynamics and relevance of self-control in accounting for mental health. More recently, measures of self-management and time-management have been used in delineating relevant dimensions of self-control. An important conceptual issue is whether self-management and time-management are basically synonymous concepts or discernibly different dimensions of self-control.

Self-control has been defined in a variety of ways in the psychological literature. For example, Freud (1961) attributed self-control to the ego. Freud believed that the child deliberately stops himself from aggressing or delays immediate gratification through the ego's balancing the id (instinctual gratification) and the superego (internalized moral sense). According to Freud, the ego is the controller over the structural divisions of the personality. Self-control is reflected in one's ability to delay gratification and tolerate tension.

In contrast to Freud, Skinner (1953) regarded self-control as behavior like any other learned behavior. Skinner's theoretical analysis of self-control includes a combination of an individual's personal history variables and present environmental influences that create the conditions for action. In sum, an individual exercises

self-control whenever he or she can effectively influence the variables controlling his or her behavior.

Other theorists have presented additional views of self-control. Dollard and Miller (1950) view the act of self-control as a cognitive process where intermediary internal cognitions cue behavior responses. The cognitions have been learned from what others have said or modeled and positively or negatively reinforced. Bandura (1969) has emphasized the importance of mediating variables (thoughts and reinforcers) in achieving self-control. Thus, Dollard, Miller, and Bandura all stress the importance of cognitions in regulating one's behavior.

Meichenbaum (1977) has been one of the leading proponents of a cognitive orientation to self-control. He views self-control as the product of self-talk that has been learned through experience. When an individual has a specific task to accomplish, success is primarily attributable to the cognition (thoughts) the individual has about the task. For Meichenbaum, cognitions include rational vs. irrational belief systems, problem solving ability, and coping skills. A critical feature of Meichenbaum's notion of self-control is that cognitions must change before behavior can change.

Self-control as described by Goldfried and Merbaum (1973) is a process through which an individual guides, directs, and regulates features of his or her own behaviors

that may lead to desired positive consequences. Their self-control theory recognizes the importance of both cognitive and environmental variables in determining the motivation for change. Self-control can be considered a skill learned through various social contacts/models and practice.

Some self-control theorists have given particular emphasis to the role of the external environment in shaping one's own behavior. For example, Watson and Tharp (1972) see behavior as largely a function of the environment. The relationship between behavior and environment is reciprocal: changes in environment will produce changes in behavior and vice-versa. Self-directed behavior is a product of the individual's specifying the behavior to be learned, recognizing antecedents that induce the desired behavior, and using positive reinforcers to strengthen the behavior. According to Watson and Tharp, the key issue in self-directed behavior is the individual's role in identifying behaviors to be changed and the procedures for making those changes.

Mahoney and Thoresen (1974) also view self-control as a function of learning and environment. Any behavior can be predicted or controlled by making changes in the environment. Behavior has two environmental influences: those that precede it (its antecedents) and those that follow it (its consequences). For Mahoney and Thoresen, if you have knowledge and control over both these factors, you

can accurately predict form and/or frequency of a behavior. In sum, self-control is the responsibility of the individual to determine the desired behavior and then use antecedents and consequences to maintain and reinforce those behaviors. It is the individual's own manipulation of the antecedents and consequences that enable the individual to have self-control (Thoresen & Mahoney, 1974).

Karoly and Kanfer (1982) have theorized that self-control is the ability of the individual to control cueing, directing, rewarding, and correcting of his or her own behavior. For self-management/self-control to work, the individual must shift from previously established habits toward problem solving, planning, and behavioral persistence. Self-control is the ability of the individual to organize a series of processes that promote attainment of one's goals.

More recently in the self-control literature, self-management and time-management have been used to represent the construct of self-control. Self-management is a construct that mainly involves the ability to define meaningful goals for oneself and then mobilize the personal resources for attaining those goals. Among the most important self-management skills are the ability to judge the importance of various tasks and then maintain concentration on important tasks until they are completed, to clearly define priorities and goals, to work through

tasks efficiently, and to keep one's physical space organized (Williams, et al., 1992). The major theme of time-management is planning and scheduling. Time-Management includes such strategies as choosing goals and subgoals, prioritizing the goals, generating tasks and subtasks from the goals, prioritizing the tasks, listing the tasks on a "to-do" list, scheduling the tasks, and then carrying out the tasks (Britton & Tesser, 1991).

The areas that self-management and time-management have in common include the self-reported ability to set goals and complete tasks on time. While both self-management and time-management emphasize planning and scheduling, the self-management construct give greater emphasis to long-term life planning (e.g., determining what one wants to experience and achieve in life). (See Table 1 for a more extended contrast between self-management and time-management.)

In sum, self-control theory has changed over the years. Whereas Freud emphasized covert variables in self-control, subsequent theorists have included the manipulation of environmental events, cognitions, and the interactions of cognitions and the environment. The common themes of self-control include cognition, behavior in relationship to environment, cues, reinforcers, and learning. These themes work together in a complex synergistic fashion to account for an individual's self-control. For this paper, a working

Table 1

## Self-Management vs. Time-Management Factors

| FACTOR   | SELF-MANAGEMENT                                                                                                                                                   | TIME-MANAGEMENT                                                                                                                                                                                                                                                                          |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Factor 1 | <u>Performance Focus &amp; Efficiency</u><br><br>*Ability to judge the importance of tasks<br><br>*Ability to maintain concentration on each task until completed | <u>Short-Range Planning</u><br><br>*Ability to Plan within the day or week.                                                                                                                                                                                                              |
| Factor 2 | <u>Goal Directedness</u><br><br>*Ability to have actions guided by clearly defined priorities and goals                                                           | <u>Long-Range Planning</u><br><br>*Ability to set goals for several weeks ahead<br><br>*Ability to put important duties on a single calendar<br><br>*Ability to review material even when tests are not imminent.<br><br>*Ability to complete major assignments without procrastination. |
| Factor 3 | <u>Timeliness of Task Accomplishment</u><br><br>*Ability to initiate work on a task and move through the task efficiently.                                        | <u>Time Attitudes</u><br>*Ability to use time constructively.<br><br>*Ability to be in control of the way time is spent.                                                                                                                                                                 |

Table 1 Continued

| FACTOR   | SELF-MANAGEMENT                                                                                                                    | TIME-MANAGEMENT |
|----------|------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Factor 4 | <u>Organization of<br/>Physical Space</u><br><br>*Ability to keep work<br>and living space<br>organized, clean, and<br>attractive. |                 |

definition of self-control is suggested by the following description: "Self-control is an individual decision developed through a conscious process for the purpose of integrating action which culminates in achieving desired outcomes or goals as determined by the individual" (Goldfried & Merbaum, 1976, p. 38).

### Self-Control and Physical Health

Good self-control has become more than a means to achieving academic, work, and social goals. The concept of self-control implies that an individual also controls behaviors that affect health. Control of one's life is an important variable in both physical and mental health.

In a study on the relationship of fitness to self-control, subjects who were the most physically fit scored high on internal locus of control and low on depression (Brandon & Loftin, 1991). This study suggests that those who exercise more regularly may perceive a linkage between their personal habits and their health. In a related study, self-control characteristics were found to be negatively correlated with dieting (Logue & King, 1991). Self-control was defined in this study as obtaining juice earlier than scheduled and consequently receiving lesser amounts (low self-control, impulsive) vs. obtaining juice later in the day and receiving greater amounts (high self-control, non impulsive). Subjects who were overweight and dieting scored

low on self-control. The subjects who were dieting were significantly more impulsive than non-dieters.

Poor self-control characteristics have also been associated with a greater risk for HIV-exposure (Hernandez & Declemente, 1992). Adolescents who had low scores on both ego-development (goal directedness) and internal locus of control were significantly more likely to engage in sex without condoms than subjects with high scores for ego development and internal locus of control. This study suggests that adolescents who have low scores on ego-development and internal locus of control may be inclined to engage in high-risk behavior.

Self-control has also been related to coronary heart disease (Heilbrun & Friedberg, 1988). Both male and female Type A personality subjects who could not control their behavior within adaptive limits were vulnerable to excessive stress and at risk for coronary heart disease. The authors defined low self-control as being impulsive and having deficits in internal scanning (ability to use internally generated information relative to drinking). In another study, college women with bulimic characteristics, including uncontrolled binge eating, had low impulse control and low internal scanning (Heilbrun & Bloomfield, 1986).

Perception of personal control has also been related to the ability to maintain weight loss (Schreiber, Schauble, Epting, & Skarholt, 1979). Subjects with an internal locus

of control were found to maintain a significantly greater weight loss than subjects with an external locus of control. In another study on weight reduction, subjects who had a high internal locus of control had higher completion and success rates in weight reduction than subjects with high external locus of control (Balch & Ross, 1975). The study suggests that control perspectives should be considered in the selection of applicants for weight reduction therapy.

Treatment strategies based on self-control concepts have been used in promoting weight management (Kiefer, Schoberberger, & Kunze, 1991). For example, self-control practices of monitoring and recording calorie intake helped overweight subjects to change their nutritional habits, reduce body weight, and keep normal body weight stable.

Perception of personal control has also been found to be an important issue among ex-smokers (Katz & Singh, 1986). Ex-smokers scored high on internal locus of control, suggesting that they may have succeeded in eliminating smoking because they perceived a linkage between their smoking and health status. In another study, behavioral self-control treatment (controlling impulses, recognizing antecedents, and using reinforcers) was used in conjunction with transdermal nicotine treatment for smokers (Buchkremer, Minneker, & Block, 1991). The combined therapy produced a 12 month success rate (total abstinence) of about 35%. In contrast, another group of smokers who were given the

transdermal nicotine patch without behavioral self-control treatment had no therapeutic success.

Good self-control/self-management skills have been used to achieve additional health outcomes. For example, self-management techniques have improved blood pressure control in patients with diabetes mellitus across personality types (Goodall & Halford, 1991).

In related research on health management, time-management was found to be predictive of the intention to exercise in individuals who had suffered from coronary heart disease. Ineffective time-management, difficulties in psychological adaptation, and laziness were the barriers to intention to exercise after individuals were diagnosed with coronary heart disease. Subjects who were high intenders (i.e., subjects who reported to have recognized that exercise was important to their recovery and planned to exercise) differed from low intenders (subjects who reported to have recognized that exercise was important to their recovery, but weren't going to make the effort) in their perceptions of the three barriers described above. The low intenders had difficulty in managing their time, difficulties in psychological adaptation (change), and laziness (Godin, Valois, Jobin, & Ross, 1991).

#### Self-Control and Psychological Health

Self-control strategies have also been found to be effective in improving psychological health. A self-control

treatment involving self-monitoring, self-evaluation, and self-reinforcement was found to be as effective as cognitive therapy (Beck, 1979) in producing significant reductions in depression among depressed female subjects (Thomas, Petry, & Goldman, 1987). In another study, subjects were found to have greater tendencies to be depressed if they had an external locus of control (Flett, Hewitt, Blankstein, & O'Brien, 1991). Self-control therapy involving impulse control and planning has been quite useful with depressed subjects (Rehm, 1984-85).

Improving self-control skills (e.g., impulse control) with schizophrenics who had an internal locus of control helped motivate them to put forth efforts to control their environment and not withdraw socially. However, this approach worked only with internal locus of control subjects (Varkey & Sathyavathi, 1984).

In related studies on self-control in childhood, children with attention deficit hyperactive disorder have been found to have poor self-control skills (e.g., speaking out of turn, talking when supposed to be quiet, and getting out of seat) and low self-esteem. Improving self-control skills has been found to increase their self-esteem (Fehlings, Roberts, Humphries, & Dawe, 1991). In a related study, self-control therapy (self-assessment, self-monitoring, and reinforcement) was given to stuttering children in an effort to prevent relapse. The study found

that self-control therapy appeared to have prevented relapse in 67% of the subjects (Craig & Andrews, 1985). In sum, self-control therapy has been shown to be important in the treatment of psychological problems in childhood.

In other studies related to psychological health, time-management has been linked with academic performance and stress levels of college students. Students who perceived themselves in control of their time reported significantly greater evaluations of their own performance, greater work and life satisfaction, less role ambiguity, less role overload, and fewer job-induced tensions than students who viewed themselves not in control of their time (Macan, Shahani, Dipboye, & Phillips, 1990). Also, time-management techniques of planning and scheduling of work and leisure activities were found to reduce levels of distress and stress and increase levels of adjustment among married couples (McLaughlin et al., 1988).

Improving time-management skills seems to be a particularly effective way to reduce stress. For instance, planning and scheduling of work and leisure activities were found to reduce anxiety and stress in a group of dental hygiene professionals (Lang, 1992; Lang et al., 1990). In a study of alcohol dependent subjects, researchers found that stress increased patients' likelihood of using alcohol. Researchers found time-management to be effective in reducing stress and subsequently reducing subjects'

likelihood of using alcohol (Stillson, White, & Harris, 1986). In sum, time-management has been found effective in reducing anxiety and stress.

### Personality and Health

Another psychological construct that has been useful in accounting for health is personality. In fact, personality types or dimensions have been related to many of the same health variables as has self-control. These parallel relationships suggest that the constructs of self-control and personality may be closely related. Thus, a fundamental issue is whether self-control is synonymous with a particular personality type/dimension or a construct that cuts across a diversity of personality types.

Personality characteristics that are conducive to good self-management appear to be reflected in the MBTI personality measures. For example, college faculty rated students who have an ESJ (Extraverted, Sensing, Judging) type as having foresight in time-management and tolerance for frustration. Extraversion (E) was associated with a high level of activity; Judging (J) with responsibility, steady work, industriousness, and willingness to take direction; and Sensing (S) with masculine vigor (bodily energy) and willingness to take direction (Myers, 1962).

Conclusions from research on personality traits from 1971 to 1994 reveal that several personality traits are correlated with psychological coping in stressful

situations. For instance, the personality of individuals may be correlated with the manifestations of "burnout" in the work place and one's predisposition to burnout (Chernis, 1980; Welch, Medeiros, & Tate, 1982).

In a study addressing the relationship between job burnout and MBTI personality type, Garden (1989) found that emotional demands (which required willingness to help or nurture others) predicted burnout for Feeling types but not for Thinking types in the human services environment. In contrast, mental demands (which required the will to excel or achieve) were correlated with burnout for Thinking types but not for Feeling types in the business environment. Based on this study's results, Garden concluded that the manner in which burnout is expressed may depend on the interaction between an employee's personality type and occupational demands.

The demands of an employee in human services include caring for people in emotionally charged situations, whereas the demands of an employee outside of human services include pressure to achieve in a complex business environment. According to Garden, burnout in human service workers is reflected in the lessening of willingness to help or nurture others, while burnout in non-human service workers is reflected in the lessening of the will to excel or achieve. In sum, in the human services environment, burnout is more likely for the Feeling types than for the Thinking types.

In contrast, in the business environment, burnout is more likely for the Thinking types than for the Feeling types (Garden, 1989).

Other researchers have compared the personality types of psychiatric patients with those of control subjects. For instance, Linton, Kuechenmeister, and Kuechenmeister (1986) found that the incidence of Introverted types (I) in the patient population was nearly twice (67%) that of Introverts in the normal population (35%). The psychiatric population had a predominance of the ISFJ (Introversion Sensing Feeling Judging) type. Furthermore, incidence of this type in the psychiatric population was three times that for females and five times that for males in the normal population. However, the ISFJ typology could reflect a willingness to seek treatment; whereas other typologies may reflect more reluctance to seeking treatment.

Some personality dimensions have been predictive of physical health measures. Sensing personality types have been shown to have a greater incidence of coronary heart disease than other types (Thorne, Fyfe, & Carskadon, 1987). In a study of the influence of psychological factors in the progression of cancer in women, results showed cancer spread and mortality to be related to repressive personality style, reduced expression of negative affect, helplessness-hopelessness, and chronic stress (Jensen, 1987). Also, personality traits of anger, aggression, and hostility have

been found to be predisposing factors for coronary heart disease (Eysenck, 1991). Lawler and Schmied (1992) found that Type A personality in women was associated with greater illness frequency than Type B personality, and the psychological variable most related to good health in women was an internal locus of control.

Personality dimensions may also be related to chemical dependency. For example, in a study of the relationship between marijuana use and personality, researchers found that users had higher Intuiting and Perceiving scores than had non-users (Harris & Lester, 1986). Marijuana users have also been found to be socially poised, open to experience, concerned with the feelings of others, impulsive, pleasure seeking, and rebellious. In comparison, non-users have been found to be responsible, rule abiding, inflexible, conventional, and narrow in their interests (Hogan, Manhin, Conway, & Fox, 1970). And in somewhat related findings, Introversion (I) and Sensing (S) were found to be the most common personality types among the patients in a chemical dependency treatment program (Roszell, Chaney, & Blaes, 1983).

This review of the personality and mental health literature included research from 1974 to 1994 on the psych-lit and med-line systems. Combinations of variables that were searched on psych-lit from 1974 to 1994 included personality and MBTI with mental health, mental illness,

health, anger, optimism, life-satisfaction, happiness, anxiety, depression, purpose in life, and stress. The med-line search from 1974 to 1994 included personality and MBTI combined with mental health, mental illness, and stress. As is evident from the literature referenced, limited research has addressed the linkage between personality dimensions (especially the MBTI) and psychological health.

#### Importance of Current Study

Variables such as stress, academic performance, burnout, psychiatric hospitalization, and health habits have been related to MBTI personality type, self-management skills, and time-management skills. However, at the present time, no research has examined the potential correlations of self-management and time-management with personality type.

Examining the linkage of self-management and time-management to personality is important for several reasons. First, self-management and time-management have been found to be important correlates of physical and mental health. Specifically, they have been found to be important in the prevention and treatment of mental and physical illness. However, it may be that certain personality types have a greater affinity with self-management approaches than do other personality types.

If self-management and time-management skills are more pronounced with certain personality types than other types, then self-management and time-management strategies may be

more applicable with some personality types than others. If, however, self-management and time-management are unrelated to personality type, then self-management and time-management programs could conceivably be used to improve mental health, work efficiency, and academic performance across personality types. The specific objectives of the current study were to determine the relationship among self-management, time-management, and personality type in a group of college students.

## CHAPTER III

### METHOD

#### Subjects

Subjects were solicited from a large state university. The primary subjects ( $N$ =approximately 347) included male and female undergraduate students enrolled in Psychoeducational Issues in Human Development (Ed Psych 210;  $N$ =296) during 1992 and 1993 and Exploring Majors and Careers (Ed Psych 305;  $N$ =51) during the Fall semester of 1993 at the University of Tennessee, Knoxville. The Ed Psych 210 course was organized along a self-directed format to permit student choices of learning options. Although the courses were offered at the sophomore level, students ranged in classification from the freshman to the graduate level. Sample sizes for grade level were 44 freshman, 112 sophomores, 84 juniors, 43 seniors, and 2 graduate students. More females ( $N$ =268) than males ( $N$ =79) were enrolled in the courses, and student ages ranged from 18 to 53. However, the majority of the students were between ages 19 and 23.

The students were invited to participate in a research study examining the relationship between student characteristics and instructional effectiveness. Participation for a majority of students consisted of completing the following instruments: a self-management inventory, a time-management inventory, a measure of personality type, and a measure of social desirability.

However, one group of Ed Psych 210 students ( $N=144$ ) were not administered the time-management inventory. Students were given no extra credit for participating, and close to 100 percent elected to participate.

A secondary sample ( $N=77$ ) from undergraduate classes in health and physical education (weight training, walking, tennis and tumbling) was used to assess the test-retest reliability of the time-management inventory used in the study. The testing sessions were conducted in August and September of 1993 over a two-week interval.

### Instruments

Myers-Briggs Type Indicator (MBTI). The MBTI is published by Consulting Psychologists Press and designed for use with adolescents and adults. The most recent publication of the MBTI (Form G) was printed in 1985. Form G has 126 items and is presented in a forced-choice format. The MBTI was designed to assess normal behavior patterns among normal individuals. The scoring of the MBTI on each of the four dimensions is continuous (Myers & McCaulley, 1985).

The MBTI determines subjects' basic preferences along each of the following dimensions: Extraversion/Introversion, Sensing/Intuition, Thinking/Feeling, and Judging/Perceiving. An individual taking the instrument receives a score on each dimension. The scores are then combined into a four part

code, indicating one's personality "type" (Myers & McCaulley, 1985).

The EI (Extravert/Introvert) index reflects whether a person is an Extravert or Introvert according to Jung's personality structure. The Extravert expends energy toward external objects (people and things) so that she or he can influence and be influenced by the objects. For instance, an entrepreneur who enjoys working with others is more likely an extravert. The Introvert expends energy on concepts and ideas (Myers & McCaulley, 1985). For example, a researcher who enjoys working individually is most likely an introvert.

The SN (Sensing/Intuiting) index reflects an individual's choice of two opposite ways of perceiving (Sensing or Intuiting) in Jung's personality structure. Sensing is an orientation to reality that relies on seeing, hearing, tasting, smelling, and touching. Sensing types prefer to work with knowledge that they have directly obtained through the senses. For example, a veterinarian likes to work with animals because this type of work requires the individual to rely on his or her senses. Intuition, on the other hand, stems from perceptions of the unconscious, and encompasses creativity and imagery. Intuitive types prefer to work with possibilities that are gleaned through either a "gut feeling" or a hunch. For example, a scientist will want to generate new ideas rather

than focus on conclusions that are already developed (Myers & McCaulley, 1985).

The TF (Thinking/Feeling) index reflects a person's preferred manner for assessing situations. The Thinking preference includes intellectual cognition, formation of logical conclusions, and adaptability to stressful situations. The Feeling preference encompasses the extent to which something is important and valued, and is guided by whether affective cues are pleasant or unpleasant (Myers & McCaulley, 1985).

The JP (Judging/Perceiving) index reflects whether someone prefers a Judging process of Thinking or Feeling, or a perceptive process of Sensing or Intuition. Those who prefer Judging are characterized by organizational skills, decisiveness, and resistance to change. Those who prefer Perceiving are characterized by poor organization skills, indecisiveness, spontaneity, and flexibility (Myers & McCaulley, 1985).

The MBTI has established itself as a well-designed measure of personality type (Carlyn, 1977). Several researchers have verified the MBTI's construct validity (Carlson, 1980; Richek & Brown, 1968; Thompson & Borrello, 1986). Reliability estimates range from the upper .60s to lower .90s (Willis, 1984). The Thinking-Feeling scale has yielded the lowest reliabilities and the Sensing-Intuiting,

the highest. Stability coefficients evaluated over a 21 week period have varied from .65 to .85 (Willis, 1984).

Responses to the Myers-Briggs in the present study were scored on each of the followup dimensions: Extraversion-Introversion, Sensing-Intuition, Thinking-Feeling, and Judging-Perceiving. The scoring of these dimensions was as follows: a score above 100 on the Extraversion-Introversion dimension indicates a preference for Introversion and a score below 100 a preference for Extraversion; a score above 100 on the Sensing-Intuition dimension indicates a preference for Intuition and a score below 100 a preference for Sensing; a score above 100 on the Thinking-Feeling scale indicates a Feeling orientation and a score below 100 a Thinking orientation; and a score above 100 on the Judging-Perceiving scale indicates a preference for Perceiving and a score below 100 a preference for Judging. Each dimension yields a continuous score, which was used in the data analysis in this study.

Lifestyle Approaches (LSA). The subjects used in the standardization study of the LSA were taken from three different college settings and a nonstudent population. The majority of the subjects were from a state university with an enrollment of approximately 25,000 students ( $N=399$ ) and a community college of approximately 5,000 students ( $N=240$ ). Other subjects came from a church-affiliated college of approximately 2,000 students ( $N=59$ ). Also included were 37

nonstudent adults from an out-patient psychiatric practice. The total LSA subject sample included 216 males and 518 females ranging in age from 18 to over 65 (Williams, et al., 1992).

In the factor analytic study of the LSA, conducted by Williams et al. (1992), four factors were identified. Factor 1, Performance Focus and Efficiency, reflects self-reported skill in judging the importance of various tasks and then maintaining concentration on each important task until it is completed. Factor 2, Goal-Directedness, represents "individuals' perceptions of whether their actions are guided by clearly defined priorities and goals" (Williams et al., 1992, p. 12). Factor 3, Timeliness of Task Accomplishment, depicts the self-reported tendency to initiate work on a task and move through that task efficiently. Factor 4, Organization of Physical Space, "indicates the extent to which individuals report keeping their work and living space organized, clean, and attractive" (Williams et al., 1992, p. 12).

The 16 items that were ultimately included in the LSA had been taken from self-management procedures described in Manage Your Life (Williams & Long, 1991). Approximately half the items were worded to reflect effective self-management strategies, and the remainder were worded to reflect ineffective self-management. Subjects were instructed to indicate the extent to which each item

reflected their daily living style by using a 5-point Likert (1932) scale ranging from "very different from me" to "very similar to me." Ratings received a 0 to 4 value, with the higher values being indicative of good self-management.

The concurrent validity of the LSA as reported by Williams et al. (1992) has been strong, in that 52 of the 56 predicted correlations between the LSA factors and comparison health variables were statistically significant at the .01 level. Of these, 46 were significant at the .0001 level. The LSA factors most strongly related to the comparison variables were Factors 1 (Performance Focus and Efficacy) and 2 (Goal-Directedness). As expected, "most LSA factors were positively correlated with measures of self-efficacy, life satisfaction, purpose in life, good physical health status, and good health habits" (Williams et al., 1992, p. 13). Likewise, LSA factors were negatively correlated with subjects' perceptions of their stress level and an external locus of control, which is generally a liability in self-management.

The LSA's convergent validity was established through comparisons with Rosenbaum's (1980) Self-Control Schedule (SCS) and Brandon, Oescher and Loftin's (1990) Self-Control Questionnaire (SCQ). Correlations between the LSA factors and the comparison self-control scales ranged from .30 to .66. The internal consistency (Cronbach's alpha) for the LSA ranged from .60 to .71 across the factors. The test-

retest reliability of the LSA ranged from .65 to .89 across the four factors (Williams et al., 1992).

The LSA was chosen as the preferred self-management inventory because of its well-developed psychometric characteristics and its potential for accurately evaluating self-management with a limited number of questions. (See Appendix A for a listing of the LSA items by factor.)

Time-Management Questionnaire (TMQ). The sample used in the development of the TMQ was taken from a state university setting. The study included freshmen and sophomore male and female undergraduate students ( $N=90$ ) enrolled in an introductory psychology class. Approximately 90 percent of the subjects were caucasian and 10 percent ethnic minorities.

The TMQ is based on the concepts reflected in Britton and Glynn's (1989) model of time-management practices. This model includes several aspects of time-management: stating goals and subgoals, prioritizing the goals, identifying tasks and subtasks from the goals and subgoals, prioritizing the tasks, and carrying out the tasks. Britton and Tesser (1991) developed a three factor questionnaire (TMQ) from Britton and Glynn's model. Factor 1, Short-Range Planning, includes planning within the day or the week. Factor 2, Time Attitudes, indicates whether time is used constructively and whether subjects feel in control of the way their time is used. Factor 3, Long-Range Planning,

depicts the subject's ability to evaluate and sets goals for several weeks ahead, put important dates on a single calendar, review material even when tests are not imminent, and complete major assignments without procrastination.

The TMQ consists of 18 items, each answered on a 5-point scale consisting of the responses always, frequently, sometimes, infrequently, and never. Item loadings on the three factors range from .50 to .79 for Factor 1, .52 to .63 for Factor 2, and .42 to .61 for Factor 3. The test-retest reliability has not been evaluated for the TMQ, but the instrument was administered on two occasions in the current study to assess its test-retest reliability. (See Appendix B for a listing of the TMQ items by factor.)

Marlowe Crowne. This instrument is a widely used measure of social desirability (Carol & Hurlbert, 1992; Beck, Bozman, & Qualtrough, 1991; McCann & Biaggio, 1989). The scale includes socially approved behaviors responses that occur infrequently (Crowne & Marlowe, 1960). The scale is designed to identify individuals who attempt to present themselves in an overly positive light. The Marlowe-Crowne short form (Reynolds, 1982) was chosen as the social desirability instrument because the LSA has yielded moderate correlations with it. The Marlowe-Crowne has shown good test-retest reliability (.89) and internal consistency (.88). Correlation with the Lie (.54) and Repression (.28)

scales of the MMPI provide some evidence of convergent validity for the Marlowe-Crowne (Crowne & Marlowe, 1960).

## CHAPTER 4

### RESULTS OF THE STUDY

The results of this study are presented in the following order: (1) the test-retest reliability of the TMQ, (2) the correlations between the LSA factors and the TMQ factors with and without the Marlowe-Crowne scores partialled out, (3) the correlations between the LSA factors and the four Myers-Briggs dimensions with and without the Marlowe-Crowne scores partialled out, (4) the differences in the LSA composite means for the various Myers-Briggs Types, and (5) correlations between the TMQ factors and the four Myers-Briggs dimensions with and without the Marlowe-Crowne scores partialled out.

#### TMQ Reliability

The results of the TMQ test-retest reliability analysis were as follows: Factor 1, Short-Range Planning, yielded a test-retest reliability correlation of .85; Factor 2, Long-Range Planning, a reliability correlation of .52; and Factor 3, Time Attitudes, a reliability correlation of .75; and TMQ Total, a reliability correlation of .78. Overall, these correlation coefficients suggest that the TMQ is a reliable instrument. However, Factor 2, Long-Range Planning, did show a relatively low reliability correlation of .52.

### Relationship between the TMQ and LSA

The correlational analysis between the LSA and TMQ for the total group yielded moderately consistent relationships between the two instruments (see Table 2). All the LSA factors showed some relationship to all the TMQ factors. The strongest relationships were found between the TMQ-Short-Range Planning factor and the LSA Goal Directedness factor (.40), the TMQ-Long-Range Planning factor and the LSA Timeliness of Task Accomplishment factor (.49), the TMQ-Time Attitudes factor and the LSA Performance Focus and Efficiency factor (.59), and the TMQ-Time-Attitudes factor and the LSA Timeliness of Task Accomplishment factor (.47). The TMQ-Total total was most strongly correlated with the LSA Timeliness of Task Accomplishment factor (.58), and the LSA Total with TMQ-Time Attitudes factor (.58).

Overall, correlations by gender were consistent with the correlations for the total group. The most substantial gender difference was in the relationships between TMQ-Short-Range Planning factor and the LSA Timeliness of Task Accomplishment factor. These variables were moderately correlated (.47) for females, but essentially unrelated (.07) for males. In contrast, the TMQ-Long-Range Planning factor was more strongly and consistently related to the LSA factors for males than for females. The correlations between TMQ-Total and the LSA total showed remarkable consistency between males (.66) and females (.69).

Table 2

Relationship Between LSA and TMO for Total Group

| TMQ<br>Dimensions               | LSA Dimensions                         |                      |                                         |                                      | Lifestyle<br>Approaches<br>Total |
|---------------------------------|----------------------------------------|----------------------|-----------------------------------------|--------------------------------------|----------------------------------|
|                                 | Performance<br>Focus and<br>Efficiency | Goal<br>Directedness | Timeliness<br>of Task<br>Accomplishment | Organization<br>of Physical<br>Space |                                  |
| <u>TMQ-Short-Range Planning</u> |                                        |                      |                                         |                                      |                                  |
| Total<br>(N=203)                | .24 (.0004)                            | .40 (.0001)          | .37 (.0001)                             | .39 (.0001)                          | .46 (.0001)                      |
| Males<br>(N=48)                 | .23 (NS)                               | .37 (.01)            | .07 (NS)                                | .49 (.0004)                          | .36 (.01)                        |
| Females<br>(N=155)              | .29 (.0003)                            | .39 (.01)            | .47 (.0001)                             | .33 (.0001)                          | .49 (.0001)                      |
| <u>TMQ-Long-Range Planning</u>  |                                        |                      |                                         |                                      |                                  |
| Total<br>(N=203)                | .28 (.0001)                            | .27 (.0001)          | .49 (.0001)                             | .41 (.0001)                          | .49 (.0001)                      |
| Males<br>(N=48)                 | .33 (.02)                              | .42 (.003)           | .49 (.0004)                             | .48 (.0005)                          | .59 (.0001)                      |
| Females<br>(N=155)              | .28 (.0005)                            | .21 (.009)           | .48 (.0001)                             | .37 (.0001)                          | .45 (.0001)                      |

Table 2 Continued

| TMQ<br>Dimensions         | LSA Dimensions                         |                      |                                         |                                      |
|---------------------------|----------------------------------------|----------------------|-----------------------------------------|--------------------------------------|
|                           | Performance<br>Focus and<br>Efficiency | Goal<br>Directedness | Timeliness<br>of Task<br>Accomplishment | Organization<br>of Physical<br>Space |
| <u>TMQ-Time Attitudes</u> |                                        |                      |                                         |                                      |
| Total<br>(N=203)          | .59(.0001)                             | .37(.0001)           | .47(.0001)                              | .25(.0003)                           |
| Males<br>(N=48)           | .60(.0001)                             | .33(.02)             | .52(.0002)                              | .30(.04)                             |
| Females<br>(N=155)        | .59(.0001)                             | .38(.0001)           | .46(.001)                               | .25(.0017)                           |
| <u>TMQ-Total</u>          |                                        |                      |                                         |                                      |
| Total<br>(N=203)          | .48(.0001)                             | .48(.0001)           | .58(.0001)                              | .49(.0001)                           |
| Males<br>(N=48)           | .47(.0008)                             | .52(.0002)           | .39(.006)                               | .61(.0001)                           |
| Females<br>(N=155)        | .51(.0001)                             | .46(.0001)           | .63(.0001)                              | .43(.0001)                           |
|                           |                                        |                      |                                         | .58(.0001)                           |
|                           |                                        |                      |                                         | .62(.0001)                           |
|                           |                                        |                      |                                         | .59(.0001)                           |
|                           |                                        |                      |                                         | .68(.0001)                           |
|                           |                                        |                      |                                         | .66(.0001)                           |
|                           |                                        |                      |                                         | .69(.0001)                           |

Note: Statistical significance levels are enclosed in parentheses following correlations.

To test for consistency across the groups that were administered both the TMQ and LSA, the experimenter examined the correlations between these instruments for two separate groups: Group B--those enrolled in ED Psych 210 during the fall semester of 1993 and C--those enrolled in Ed Psych 305 during the same semester. Although the correlational patterns were moderately similar for the two groups, Group C tended to yield stronger correlations between the TMQ and the LSA (see Table 3). This disparity was especially apparent in the correlations between the TMQ-Short-Range Planning factor and the LSA factors, and evident to a somewhat lesser degree in the correlations between the TMQ-Long-Range Planning factor and the LSA factors. However, the correlations between the TMQ-Total and the LSA Total were quite similar for the two groups ( $B=.59$ ,  $C=.67$ ).

Comparisons of the regular and partial correlational patterns between the TMQ and LSA indicated that the partial correlations tended to be somewhat lower than the regular correlations (see Table 4). This disparity suggests that social desirability may have been a factor in subject responding to these instruments. However, in only a few instances (e.g., TMQ-Short-Range Planning factor and LSA-Performance Focus and Efficiency factor, TMQ-Short Range Planning factor and LSA Goal Directedness factor, TMQ-Long-Range Planning factor and LSA Goal Directedness factor) did the partial correlations approximate a zero level. Thus,

Table 3

Relationship Between LSA and TMQ by Group

| TMQ Dimensions                  | LSA Dimensions                   |                   |                                   |                                |                            |
|---------------------------------|----------------------------------|-------------------|-----------------------------------|--------------------------------|----------------------------|
|                                 | Performance Focus and Efficiency | Goal Directedness | Timeliness of Task Accomplishment | Organization of Physical Space | Lifestyle Approaches Total |
| <u>TMQ-Short-Range Planning</u> |                                  |                   |                                   |                                |                            |
| Group B (N=123)                 | .04(NS)                          | .10(NS)           | .27(.0008)                        | .35(.0001)                     | .27(.0009)                 |
| Group C (N=51)                  | .39(.004)                        | .51(.0001)        | .50(.0002)                        | .40(.004)                      | .51(.0001)                 |
| <u>TMQ-Long-Range Planning</u>  |                                  |                   |                                   |                                |                            |
| Group B (N=123)                 | .18(.03)                         | .06(NS)           | .46(.0001)                        | .40(.0001)                     | .42(.0001)                 |
| Group C (N=51)                  | .36(.01)                         | .47(.0006)        | .51(.0001)                        | .34(.02)                       | .48(.0003)                 |
| <u>TMQ-Time Attitudes</u>       |                                  |                   |                                   |                                |                            |
| Group B (N=123)                 | .60(.0001)                       | .26(.002)         | .41(.0001)                        | .20(.01)                       | .58(.0001)                 |
| Group C (N=51)                  | .47(.0006)                       | .39(.005)         | .54(.0001)                        | .28(.05)                       | .50(.0002)                 |
| <u>TMQ-Total</u>                |                                  |                   |                                   |                                |                            |
| Group B (N=123)                 | .36(.0001)                       | .20(.01)          | .53(.0001)                        | .47(.0001)                     | .59(.0001)                 |
| Group C (N=51)                  | .54(.0001)                       | .62(.0001)        | .69(.0001)                        | .47(.0005)                     | .67(.0001)                 |

Note:

Group B - those enrolled in Ed Psych 210 during Fall Semester of 1993

Group C - those enrolled in Ed Psych 305 during the same semester

Table 4

Regular and Partial Correlations Between LSA and TMQ for Total Group

| TMQ                             | LSA Dimensions                         |                      |                                         |                                      |                                  |
|---------------------------------|----------------------------------------|----------------------|-----------------------------------------|--------------------------------------|----------------------------------|
|                                 | Performance<br>Focus and<br>Efficiency | Goal<br>Directedness | Timeliness<br>of Task<br>Accomplishment | Organization<br>of Physical<br>Space | Lifestyle<br>Approaches<br>Total |
| <u>TMQ-Short-Range Planning</u> |                                        |                      |                                         |                                      |                                  |
| Regular<br>(N=204)              | .24(.0004)                             | .40(.0001)           | .37(.0001)                              | .39(.0001)                           | .46(.0001)                       |
| Partial<br>(N=146)              | -.01(NS)                               | .13(.05)             | .25(.001)                               | .32(.0001)                           | .24(.002)                        |
| <u>TMQ-Long-Range Planning</u>  |                                        |                      |                                         |                                      |                                  |
| Regular<br>(N=204)              | .28(.0001)                             | .27(.0001)           | .49(.0001)                              | .41(.0001)                           | .49(.0001)                       |
| Partial<br>(N=146)              | .18(.01)                               | .08(NS)              | .47(.0001)                              | .40(.0001)                           | .44(.0001)                       |
| <u>TMQ-Time Attitudes</u>       |                                        |                      |                                         |                                      |                                  |
| Regular<br>(N=204)              | .59(.0001)                             | .37(.0001)           | .47(.0001)                              | .25(.0003)                           | .58(.0001)                       |
| Partial<br>(N=146)              | .59(.0001)                             | .22(.003)            | .42(.0001)                              | .16(.02)                             | .57(.0001)                       |

Table 4 Continued

| TMQ                             | LSA Dimensions                         |                      |                                         |                                      |
|---------------------------------|----------------------------------------|----------------------|-----------------------------------------|--------------------------------------|
|                                 | Performance<br>Focus and<br>Efficiency | Goal<br>Directedness | Timeliness<br>of Task<br>Accomplishment | Organization<br>of Physical<br>Space |
|                                 |                                        |                      |                                         | Lifestyle<br>Approaches<br>Total     |
| TMQ-Total<br>Regular<br>(N=204) | .48(.0001)                             | .48(.0001)           | .58(.0001)                              | .49(.0001)                           |
| Partial<br>(N=146)              | .33(.0001)                             | .21(.004)            | .53(.0001)                              | .43(.0001)                           |
|                                 |                                        |                      |                                         | .68(.0001)                           |
|                                 |                                        |                      |                                         | .58(.0001)                           |

Note: Statistical significance levels are enclosed in parentheses following correlations.

even with the Marlowe-Crowne scores partialled out of the correlations, the TMQ and LSA tend to be moderately correlated. This would be especially true of the partial correlations between the total score of each instrument and all the dimensions of the other instrument.

#### Relationship between LSA and Myers-Briggs Dimensions

All the LSA factors showed some relationship to all the Myers-Briggs dimensions (see Table 5). All four of the LSA factors were significantly correlated with at least two of the four Myers-Briggs dimensions. Two of the four LSA factors were significantly correlated with three of the four Myers-Briggs dimensions. All Myers-Briggs dimensions were significantly correlated with at least two of the four LSA factors. Although statistically significant, most of these correlations were very modest (i.e., ranging from .11 to -.39), with some accounting for a very small percentage of the variance. It should also be acknowledged that with the large sample size used in the study and the number of variables examined, some significant correlations could be expected by chance.

The LSA factors that were most consistently related to the Myers-Briggs dimensions were Goal Directedness and Organization of Physical Space. Goal Directedness was significantly related to all but the Sensing-Intuiting dimension of the Myers-Briggs, but these correlations accounted for a small percentage of the variance. The

**Table 5**  
**Relationship Between LSA and MBTI for the Total Group**

| LSA<br>Dimensions                                | MBTI Dimensions               |                       |                      |                        |
|--------------------------------------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                                                  | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <b><u>Performance Focus &amp; Efficiency</u></b> |                               |                       |                      |                        |
| Total<br>(N=347)                                 | -.08 (NS)                     | -.02 (NS)             | -.12 (.03)           | -.16 (.002)            |
| Males<br>(N=79)                                  | -.20 (NS)                     | -.11 (NS)             | -.00 (NS)            | -.12 (NS)              |
| Females<br>(N=268)                               | -.04 (NS)                     | .01 (NS)              | -.14 (.03)           | -.18 (.003)            |
| <b><u>Goal Directedness</u></b>                  |                               |                       |                      |                        |
| Total<br>(N=346)                                 | -.14 (.01)                    | -.06 (NS)             | .11 (.04)            | -.20 (.0002)           |
| Males<br>(N=79)                                  | -.19 (NS)                     | -.13 (NS)             | .15 (NS)             | -.23 (.04)             |
| Females<br>(N=267)                               | -.12 (NS)                     | -.03 (NS)             | .06 (NS)             | -.18 (.003)            |
| <b><u>Timeliness of Task Accomplishment</u></b>  |                               |                       |                      |                        |
| Total<br>(N=347)                                 | -.02 (NS)                     | -.13 (.02)            | .03 (NS)             | -.39 (.0001)           |
| Males<br>(N=79)                                  | -.02 (NS)                     | -.10 (NS)             | .07 (NS)             | -.28 (.01)             |
| Females<br>(N=268)                               | -.01 (NS)                     | -.13 (.03)            | -.06 (NS)            | -.42 (.0001)           |
| <b><u>Organization of Physical Space</u></b>     |                               |                       |                      |                        |
| Total<br>(N=347)                                 | -.12 (.03)                    | -.16 (.002)           | .07 (NS)             | -.39 (.0001)           |
| Males<br>(N=79)                                  | -.12 (NS)                     | -.29 (.01)            | .04 (NS)             | -.54 (.0001)           |
| Females<br>(N=268)                               | -.11 (NS)                     | -.12 (.05)            | .04 (NS)             | -.32 (.0001)           |

Table 5 Continued

| LSA<br>Dimensions  | MBTI Dimensions               |                       |                      |                        |
|--------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                    | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <u>LSA</u>         |                               |                       |                      |                        |
| Total<br>(N=347)   | -.12(.03)                     | -.13(.02)             | .03(NS)              | -.40(.0001)            |
| Males<br>(N=79)    | -.19(NS)                      | -.26(.02)             | .08(NS)              | -.42(.0001)            |
| Females<br>(N=268) | -.10(NS)                      | -.09(NS)              | -.03(NS)             | -.38(.0001)            |

Note: Probability levels are indicated in parentheses following correlation coefficients. The EI scale is scored in the direction of I, the SN in direction of N, the TF in direction of F, and the JP in the direction of P.

Organization of Physical Space factor was significantly related to all but the Thinking-Feeling dimension of the Myers-Briggs.

The Myers-Briggs dimension that was most closely related to the LSA factors was the Judgment-Perception dimension. All the correlations between this dimension and the LSA factors were both statistically significant and negative. This pattern suggests that the LSA factors most strongly mirror what Myers and Briggs described as having a planned, orderly, and controlled way of living. This description by Myers and Briggs most closely parallels the LSA emphasis on physical order found within the Organization of Physical Space factor.

The LSA total was significantly correlated with three of the four Myers-Briggs dimensions (all but Thinking-Feeling). However, only the correlation between the LSA total and JP was substantial ( $-.40$ ). This correlation pattern suggests that persons scoring high on the LSA might be oriented toward the outer world (use energy toward external objects), prefer to work with knowledge they have directly obtained through the senses, and be characterized by organizational skills, decisiveness, and resistance to change. In contrast, persons scoring low on the LSA may tend to be more oriented toward the inner world of concepts and ideas, creativity and imagery, and indecisiveness and spontaneity in living.

Comparisons of correlations between the LSA and the MBTI by gender indicate considerable consistency in the statistically significant relationships across the male and female groups. Although gender disparities in correlations more frequently indicated stronger relationships for males than for females, most of these disparities were not substantial. With only one exception (Performance Focus & Efficiency factor for males), all the LSA factors were significantly correlated with the MBTI JP factor for both males and females.

Consistency in the correlation patterns between the LSA and the MBTI were also checked across the three groups used in the study: Group A (Ed Psych 210 students during fall 1992 and spring 1993), B (Ed Psych 210 students during fall 1993), and C (Ed Psych 305 students during fall 1993) (see Table 6). Overall, these correlations tended to be consistent in directionality across the groups and moderately consistent in the magnitude of the correlations. There was no LSA-MBTI comparison where the correlational range across groups was substantial. The most pronounced group disparity was seen in the relationships between the LSA dimensions and the MBTI JP factor. Although these correlations tended to be directionally consistent, Group B generally evidenced weaker relationships between the LSA and JP than did the other two groups.

Table 6

Relationship Between LSA and MBTI by Group

| LSA<br>Dimensions                         | MBTI Dimensions               |                       |                      |                        |
|-------------------------------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                                           | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <u>Performance Focus &amp; Efficiency</u> |                               |                       |                      |                        |
| Group A (N=144)                           | .00 (NS)                      | -.09 (NS)             | -.18 (.03)           | -.20 (.01)             |
| Group B (N=152)                           | -.17 (.03)                    | .12 (NS)              | -.11 (NS)            | .02 (NS)               |
| Group C (N=51)                            | -.07 (NS)                     | -.20 (NS)             | -.22 (NS)            | -.26 (NS)              |
| <u>Goal Directedness</u>                  |                               |                       |                      |                        |
| Group A (N=144)                           | -.23 (.007)                   | -.02 (NS)             | .03 (NS)             | -.09 (NS)              |
| Group B (N=152)                           | -.07 (NS)                     | -.06 (NS)             | -.02 (NS)            | -.12 (NS)              |
| Group C (N=51)                            | -.26 (NS)                     | .03 (NS)              | .18 (NS)             | -.24 (NS)              |
| <u>Timeliness of Task Accomplishment</u>  |                               |                       |                      |                        |
| Group A (N=144)                           | -.00 (NS)                     | -.23 (.005)           | .11 (NS)             | -.46 (.0001)           |
| Group B (N=152)                           | -.01 (NS)                     | -.01 (NS)             | -.09 (NS)            | -.29 (.0003)           |
| Group C (N=51)                            | -.09 (NS)                     | -.12 (NS)             | -.03 (NS)            | -.41 (.003)            |
| <u>Organization of Physical Space</u>     |                               |                       |                      |                        |
| Group A (N=144)                           | -.18 (.03)                    | -.18 (.03)            | .02 (NS)             | -.43 (.0001)           |
| Group B (N=152)                           | -.09 (NS)                     | -.13 (NS)             | .07 (NS)             | -.28 (.0006)           |
| Group C (N=51)                            | -.05 (NS)                     | -.17 (NS)             | .10 (NS)             | -.52 (.0001)           |

Table 6 Continued

| LSA<br>Dimensions | MBTI Dimensions               |                       |                      |                        |
|-------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                   | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <u>LSA</u>        |                               |                       |                      |                        |
| Group A (N=144)   | -.13 (NS)                     | -.21 (.01)            | -.03 (NS)            | -.46 (.0001)           |
| Group B (N=152)   | -.13 (NS)                     | -.03 (NS)             | -.07 (NS)            | -.24 (.003)            |
| Group C (N=51)    | -.17 (NS)                     | -.11 (NS)             | .05 (NS)             | -.40 (.003)            |

Note:

Group A = Ed Psych 210 Students During Fall 1992 and Spring 1993

Group B = Ed Psych 210 Students During Fall 1993

Group C = Ed Psych 305 Students During Fall 1993

Consistency in correlation patterns between the LSA and the Myers-Briggs was also checked between the regular correlations and correlations with the Marlowe-Crowne scores partialled out (see Table 7). In most cases, the adjusted correlations closely approximated the original correlations between the LSA and Myers-Briggs. Thus, social desirability did not appear to affect the magnitude of the relationships between the LSA and the Myers-Briggs.

The correlational analysis between the Myers-Briggs and the LSA was extended by performing a stepwise multiple regression analysis to determine how well the MBTI dimensions predicted the LSA scores. This analysis revealed that a combination of JP and EP accounted for only 16% of the variance in the LSA scores. Thirteen of that 16% was attributable to the JP dimension. Even though the Judgement-Perception scale was the strongest Myers-Briggs predictor of the LSA scores, most of the variance in the LSA scores was not explained by the Myers-Briggs dimensions.

#### Differences in LSA Means for Myers-Briggs Types

Although each of the sixteen Myers-Briggs combinations had at least one student with that typology, three types had eight or fewer subjects (i.e., ISFP=2, INTP=8, & ESTP=8). The Ns of these types were too low to make meaningful interpretations of how those types might fare with respect to self-management. The number of subjects in the different

Table 7

Regular and Partial Correlation Between ISA and MBTI for Total Group

| ISA<br>Dimensions                         | MBTI Dimensions               |                       |                      |                        |
|-------------------------------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                                           | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <u>Performance Focus &amp; Efficiency</u> |                               |                       |                      |                        |
| Regular (N=347)                           | -.08 (NS)                     | -.02 (NS)             | -.12 (.03)           | -.16 (.003)            |
| Partial (N=289)                           | -.09 (NS)                     | .03 (NS)              | -.17 (.002)          | .09 (NS)               |
| <u>Goal Directedness</u>                  |                               |                       |                      |                        |
| Regular (N=347)                           | -.14 (.01)                    | -.06 (NS)             | .11 (.04)            | -.20 (.0002)           |
| Partial (N=289)                           | -.13 (.01)                    | -.05 (NS)             | .00 (NS)             | -.12 (.02)             |
| <u>Timeliness of Task Accomplishment</u>  |                               |                       |                      |                        |
| Regular (N=347)                           | -.02 (NS)                     | -.13 (.02)            | .03 (NS)             | -.39 (.0001)           |
| Partial (N=289)                           | -.01 (NS)                     | -.13 (.02)            | .00 (NS)             | -.38 (.0001)           |
| <u>Organization of Physical Space</u>     |                               |                       |                      |                        |
| Regular (N=347)                           | -.12 (.03)                    | -.16 (.002)           | .07 (NS)             | -.39 (.0001)           |
| Partial (N=289)                           | -.13 (.01)                    | -.15 (.004)           | .02 (NS)             | -.36 (.0001)           |
| <u>ISA Total</u>                          |                               |                       |                      |                        |
| Regular (N=347)                           | -.12 (.03)                    | -.13 (.02)            | .03 (NS)             | -.40 (.0001)           |
| Partial (N=289)                           | -.13 (.01)                    | -.12 (.02)            | -.07 (NS)            | -.36 (.0001)           |

Note: Probability levels are indicated in parenthesis following correlation coefficients.

classifications in rank order were 64 for ESFJ, 38 for ENFP, 33 for ISFJ, 31 for ISTJ, 26 for ENFJ, 23 for INFP, 23 for ESFP, 22 for ESTJ, 22 for ENTP, 17 for INFJ, 13 for INTJ, 10 for ISTP, 10 for ENTJ, 8 for ESTP, 8 for INTP, and 2 for ISFP (LSA means and standard deviations for these groups are included in Table 8.)

Because the LSA means were very similar for several MBTI groups and because the *N*s for some MBTI groups were too small to make statistically reliable comparisons with other groups, an analysis of variance was computed for the LSA scores obtained by MBTI groups having at least 20 subjects (see Tables 8 and 9). The overall *F* ratio of 5.06 was significant at the .0001 level. A followup Newman-Keuls procedure revealed that the five groups obtaining the highest mean scores on the LSA (i.e., the ESTJ, ESFJ, ENFJ, ISFJ, and ISTJ) did not differ significantly from one another, but all were significantly higher than the INFP group. Because of its large sample size (*N*=64), the ISFJ group was also significantly higher than the ESFP, ENFP, and ENTP groups. The four lowest groups on the LSA (i.e., the ENFP, ENTP, ESFP, and INFP) did not significantly differ from one another.

The five highest and the four lowest MBTI groups were most consistently different on the JP dimension, with all the highs inclined toward Judging and all the lows toward Perceiving. Another relatively consistent difference

Table 8

LSA Means for Myers-Briggs Types (In Order of Scores)

| MBTI Type | N  | LSA Mean | Standard<br>Deviation |
|-----------|----|----------|-----------------------|
| * ESTJ    | 22 | 47.50    | 7.67                  |
| * ESFJ    | 64 | 47.36    | 8.95                  |
| * ENFJ    | 26 | 47.35    | 8.95                  |
| ENTJ      | 10 | 46.00    | 4.32                  |
| * ISFJ    | 33 | 45.97    | 6.99                  |
| * ISTJ    | 31 | 45.26    | 8.21                  |
| INTJ      | 13 | 44.69    | 7.54                  |
| INFJ      | 17 | 44.35    | 6.62                  |
| * ENFP    | 38 | 42.05    | 9.29                  |
| ESTP      | 8  | 41.50    | 8.49                  |
| * ENTP    | 22 | 40.95    | 8.12                  |
| * ESFP    | 23 | 40.30    | 9.02                  |
| ISFP      | 2  | 38.00    | 4.24                  |
| * INFP    | 23 | 37.65    | 9.44                  |
| ISTP      | 10 | 37.40    | 10.62                 |
| INTP      | 8  | 37.25    | 13.77                 |

\* MBTI types included in the analysis of variance of LSA scores.

Table 9

Myers-Briggs Types Significantly Different on the ISA Total


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|              |   |                                                           |
|--------------|---|-----------------------------------------------------------|
| ESTJ (47.50) | > | INFP (37.65)                                              |
| ESFJ (47.36) | > | INFP (37.65) = ESFP (40.30) = ENTP (40.95) = ENFP (42.05) |
| ENFJ (47.35) | > | INFP (37.65)                                              |
| ISFJ (45.97) | > | INFP (37.65)                                              |
| ISTJ (45.26) | > | INFP (37.65)                                              |

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Note: The Newman-Keuls Procedure and the .05 probability level were used in establishing significant differences between MBTI groups. ISA Total means are included in parentheses following the comparison types.

between the high and low groups was obtained on the Sensing-Intuition dimension, with highs inclined toward Sensing and lows toward Intuition.

#### Relationship between TMQ and Myers-Briggs Dimensions

All of the MBTI dimensions except Thinking-Feeling were significantly correlated with some of the TMQ dimensions, and all of the TMQ dimensions were correlated with some of the MBTI dimensions (see Table 10). Two of the three TMQ factors were significantly correlated with at least two of the four Myers-Briggs dimensions. Although statistically significant, most of these correlations were quite moderate (i.e., ranging from  $-.14$  to  $-.51$ ), with some accounting for very small percentage of the variance.

The TMQ factors that were most consistently related to the Myers-Briggs dimensions were Short-Range Planning (TMQ-S) and Long-Range Planning (TMQ-L). Short-Range planning was significantly related to the Extraversion-Introversion ( $-.18$ ) and Judgment-Perception ( $-.51$ ) dimensions of the Myers-Briggs. The Long-Range Planning factor (TMQ-L) was significantly related to the Sensing-Intuiting ( $-.20$ ) and Judging-Perceiving ( $-.42$ ) dimensions of the Myers-Briggs.

The Myers-Briggs dimension that was most closely related to the TMQ factors was the Judgment-Perception dimension. All the correlations between this dimension and the TMQ factors were both statistically significant and negative for the total group. This pattern suggests that

Table 10

Relationship Between TMO and MBTI for Total Group

| LSA<br>Dimensions               | MBTI Dimensions               |                       |                      |                        |
|---------------------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                                 | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <u>TMO-Short-Range Planning</u> |                               |                       |                      |                        |
| Total<br>(N=204)                | -.18 (.01)                    | -.08 (NS)             | .12 (NS)             | -.51 (.0001)           |
| Males<br>(N=48)                 | -.24 (NS)                     | -.18 (NS)             | .26 (NS)             | -.58 (.0001)           |
| Females<br>(N=156)              | -.14 (NS)                     | -.06 (NS)             | -.07 (NS)            | -.46 (.0001)           |
| <u>TMO-Long-Range Planning</u>  |                               |                       |                      |                        |
| Total<br>(N=204)                | -.07 (NS)                     | -.20 (.005)           | .04 (NS)             | -.42 (.0001)           |
| Males<br>(N=48)                 | -.27 (NS)                     | -.31 (.03)            | .09 (NS)             | -.38 (.007)            |
| Females<br>(N=156)              | -.01 (NS)                     | -.17 (03)             | -.05 (NS)            | -.41 (.0001)           |

Table 10 Continued

| LSA<br>Dimensions         | MBTI Dimensions               |                       |                      |                        |
|---------------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                           | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <u>TMQ-Time Attitudes</u> |                               |                       |                      |                        |
| Total<br>(N=204)          | -.03 (NS)                     | .09 (NS)              | -.09 (NS)            | -.14 (.05)             |
| Males<br>(N=48)           | -.10 (NS)                     | -.13 (NS)             | -.22 (NS)            | -.06 (NS)              |
| Females<br>(N=156)        | -.01 (NS)                     | .15 (NS)              | -.05 (NS)            | -.17 (.03)             |
| <u>TMQ-Total</u>          |                               |                       |                      |                        |
| Total<br>(N=204)          | -.15 (.03)                    | -.09 (NS)             | .05 (NS)             | -.51 (.0001)           |
| Males<br>(N=48)           | -.30 (.04)                    | -.28 (.05)            | .13 (NS)             | -.56 (.0001)           |
| Females<br>(N=156)        | -.10 (NS)                     | -.04 (NS)             | -.08 (NS)            | -.48 (.0001)           |

Note: Probability levels are indicated in parenthesis following correlation coefficients.

the TMQ factors most strongly mirror what Myers and Briggs described as having a planned, orderly, and controlled way of living. This description by Myers and Briggs most closely parallels the TMQ emphasis on short- and long-range planning.

The TMQ total was significantly correlated with two of the Myers-Briggs dimensions (Extraversion-Introversion and Judgment-Perception). However, only the correlation between the TMQ total and JP was substantial ( $-.51$ ). This correlation pattern suggests that persons scoring high on the TMQ might be oriented toward the outer world (use energy toward external objects), and be characterized by a preference for order, decisiveness, and control. In contrast, persons scoring low on the TMQ may tend to be more oriented toward divergency, indecisiveness, and spontaneity in living.

Comparisons of correlations between the TMQ and the MBTI by gender indicate general consistency in the statistically significant relationships across the male and female groups. Although males tended to yield higher correlations than females, most of the gender disparities in correlation were not substantial. With only one exception (TMQ-Time Attitudes for males), all the TMQ factors were significantly correlated with the MBTI JP factor for both males and females.

Consistency in the correlation patterns between the TMQ and the MBTI were also checked across the two groups used in this part of the study: Group B (Ed Psych 210 students during fall 1993), and C (Ed Psych 305 students during fall 1993) (see Table 11). Overall, the correlations tended to be moderately consistent in directionality across the groups and moderately consistent in the magnitude of the correlations. There was no TMQ-MBTI comparison where the correlation range across groups was substantial. The largest group disparity was seen in the relationships between the TMQ dimensions and the MBTI EI factor. The greatest group similarity was seen in the relationships between the TMQ dimensions and the MBTI JP factor.

Consistency in correlation patterns between the TMQ and the MBTI was also checked between the regular correlations and correlations with the Marlowe-Crowne scores partialled out (see Table 12). In most cases, the adjusted correlations closely approximated the original correlations between the LSA and Myers-Briggs. Thus, social desirability did not appear to affect the magnitude of the relationships between the TMQ and the MBTI.

The correlational analysis between the Myers-Briggs and the TMQ was extended by performing a stepwise multiple regression analysis to determine how well the MBTI dimensions predicted the TMQ-Total scores. This analysis that the MBTI dimensions have stronger potential for

Table 11

Relationship Between TMQ and MBTI by Group

| LSA<br>Dimensions        | MBTI Dimensions               |                       |                      |                        |
|--------------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                          | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| TMQ-Short-Range Planning |                               |                       |                      |                        |
| Group B (N=153)          | -.13 (NS)                     | -.09 (NS)             | .00 (NS)             | -.46 (.0001)           |
| Group C (N=51)           | -.40 (.004)                   | .05 (NS)              | .12 (NS)             | -.46 (.0007)           |
| TMQ-Long-Range Planning  |                               |                       |                      |                        |
| Group B (N=153)          | -.02 (NS)                     | -.16 (.04)            | -.05 (NS)            | -.36 (.0001)           |
| Group C (N=51)           | -.28 (.05)                    | -.25 (NS)             | .12 (NS)             | -.42 (.002)            |
| TMQ-Time Attitudes       |                               |                       |                      |                        |
| Group B (N=153)          | -.07 (NS)                     | .10 (NS)              | -.08 (NS)            | -.09 (NS)              |
| Group C (N=51)           | .05 (NS)                      | .13 (NS)              | -.29 (.04)           | -.07 (NS)              |
| TMQ-Total                |                               |                       |                      |                        |
| Group B (N=153)          | -.13 (NS)                     | -.08 (NS)             | -.05 (NS)            | -.47 (.0001)           |
| Group C (N=51)           | -.32 (.02)                    | .01 (NS)              | .00 (NS)             | -.45 (.0009)           |

Note: Probability levels are indicated in parenthesis following correlation coefficients.

Table 12

Regular and Partial Correlation Between TMO and MBTI for Total Group

| LSA<br>Dimensions               | MBTI Dimensions               |                       |                      |                        |
|---------------------------------|-------------------------------|-----------------------|----------------------|------------------------|
|                                 | Extraversion-<br>Introversion | Sensing-<br>Intuition | Thinking-<br>Feeling | Judging-<br>Perceiving |
| <u>TMO-Short-Range Planning</u> |                               |                       |                      |                        |
| Regular (N=204)                 | -.18 (.01)                    | -.08 (NS)             | .12 (NS)             | -.51 (.0001)           |
| Partial (N=146)                 | -.11 (NS)                     | -.08 (NS)             | .00 (NS)             | -.45 (.0001)           |
| <u>TMO-Long-Range Planning</u>  |                               |                       |                      |                        |
| Regular (N=204)                 | -.07 (NS)                     | -.20 (.0005)          | .04 (NS)             | -.42 (.0001)           |
| Partial (N=146)                 | .02 (NS)                      | -.16 (.03)            | -.06 (NS)            | -.34 (.0001)           |
| <u>TMO-Time Attitudes</u>       |                               |                       |                      |                        |
| Regular (N=204)                 | -.03 (NS)                     | .09 (NS)              | -.09 (NS)            | -.14 (.05)             |
| Partial (N=146)                 | -.09 (NS)                     | .10 (NS)              | -.14 (.05)           | -.06 (NS)              |
| <u>TMO-Total</u>                |                               |                       |                      |                        |
| Regular (N=204)                 | -.15 (.03)                    | -.09 (NS)             | .05 (NS)             | -.51 (.0001)           |
| Partial (N=146)                 | -.13 (NS)                     | -.07 (NS)             | -.08 (NS)            | -.45 (.0001)           |

Note: Probability levels are indicated in parenthesis following correlation coefficients.

predicting the TMQ Total scores than for predicting LSA Total scores. For the TMQ-Total scores, the JP dimension accounted for approximately 27% of the variance (as opposed to 136% for the LSA Total scores). A combination of JP and EI accounted for approximately 33% of the variance in the TMQ-Total scores, and a combination of JP, EI, and SN accounted for approximately 36% of the variance in TMQ-Total scores. The TF dimension did not enter the regression equation for the TMQ-Total scores.

## CHAPTER 5

### DISCUSSION

This study suggests that self-management (as measured by the LSA) and time-management (as measured by the TMQ) are similar constructs. All LSA dimensions were significantly correlated with all TMQ dimensions. Plus, the TMQ total and the LSA total were very highly correlated (.68). As one might expect, the TMQ total was most strongly correlated with the Timeliness of Task Accomplishment factor of the LSA. Because the LSA had previously been linked most strongly with the self-efficacy construct, it was not surprising that the LSA was most highly correlated with the Time Attitudes factor (which reflects self-efficacy relative to one's time-management) of the TMQ.

The self-management and time-management measures were not only related to each other, both showed similar patterns of relationships with the Myers-Briggs. The basic theme of the LSA, lifestyle organization, was confirmed by its relatively consistent linkage with the Judgment-Perception factor of the Myers-Briggs. Whatever their motivation, good self-managers prefer that life events unfold in an orderly manner. Perhaps individuals emphasize order because they are cognizant that more can be accomplished and enjoyed if they plan and structure life events. Thus, order may be viewed less as an end in itself and more as a means to an end.

The LSA factor that most tangibly reflects order is Organization of Physical Space (OPS). It is also this factor that was most consistently related to the Myers-Briggs dimensions. Thus, it may be that some judgments can be made about one's personality simply by observing how that person organizes his or her physical space. Only the Thinking-Feeling dimension of the Myers-Briggs was unrelated to the physical space factor of the LSA. However, the physical space factor was much more strongly related to the Judging-Perceiving dimension of the Myers-Briggs than to the Introversion-Extraversion or Sensing-Intuition factor.

It is somewhat surprising that Organization of Physical Space proved to be the LSA factor most consistently related to the Myers-Briggs. Although this factor has generally been predictive of physical and mental health variables, the magnitude of these correlations have typically been less than those for the other LSA factors. Thus, the physical space factor has emerged from this study as a more important facet of the LSA than was previously thought. Rather than being an inconsequential indicator of one's style, this factor may prove quite predictive of personality characteristics. In fact, the physical space factor predicted the Myers-Briggs scores as well as did the total LSA scores.

When the Myers-Briggs dimensions were combined into personality types, some additional linkages between the LSA

and MBTI emerged. No one type proved to be significantly above all other types in self-management scores. Based on the conceptual descriptions supplied by the publishers of the Myers-Briggs, it had been anticipated that the ESTJ type would fare extremely well on the LSA. The description for this type emphasizes a focus on the outer world, independence, practicality, logic, and organization. Although obtaining the highest raw mean on the LSA, the ESTJ type was not significantly different from four other Myers-Briggs types. All of the five highest groups had a J in the typology and four of the five had an S in the typology. Thus, individuals who focus on observable facts and prefer order in their lives appear to be inclined toward effective self-management.

The Myers-Briggs four letter type that was consistently lower than the five highest types was INFP. An individual with this typology is likely to focus on his or her inner thought, consider possibilities beyond the scope of observable phenomena, be responsive to affective cues, and be impulsive and spontaneous. It should be noted however, that this type did not differ significantly from three other types (i.e., ENFP, ENTP, and ESFP). The four lowest types were most consistently different from the high types on the JP dimension and to a slightly lesser degree on the SN dimension. Thus, the low groups tend to value imagination

and spontaneity, whereas the high groups value practicality and order.

The time-management construct, as measured by the TMQ, was related to the Myers-Briggs in much the same fashion as the LSA. In fact, the stepwise multiple regression analyses indicated an even stronger linkage between the Myers-Briggs dimensions and the TMQ-Total than between the Myers-Briggs and the LSA Total. The correlational analyses revealed that all the time-management factors were significantly related to the Judging-Perceiving dimension of the MBTI. Good time-managers appear to have a high proclivity toward planning and organization. Like effective self-managers, good time-managers prefer that events in life unfold in an orderly manner. Although only the JP dimension of the MBTI was consistently related to the time-management variables, the Sensing-Intuiting dimension of the Myers-Briggs was significantly related to the TMQ-Long-Range Planning factor. This finding suggests that Sensing (e.g., gathering the facts about a situation may be a contributor to Long-Range Planning (TMQ-L).

In sum, although some individuals in most MBTI types obtain relatively high scores on self-management and time-management, this study suggests that individuals who have a preference for Judging and perhaps also for Sensing are most likely to score high on the types of self-management and time-management measured in this study. This trend tends to

hold for both males and females and remains relatively strong even when social desirability is partialled out of these relationships. Contrary to the expected outcome, the Thinking-Feeling dimension of the Myers-Briggs was only weakly and inconsistently related to the self-management and time-management factors.

Although the current research extends our knowledge about the relationships between self-control variables and personality dimensions, one should be cautious in promoting the strength and consistency of these relationships. Many of the significant correlations were quite small and inconsistent across different dimensions of self-management and time-management. Only the Judging-Perceiving dimension of the Myers-Briggs appears to be quite strongly and consistently related to self-management and time-management measures.

The scope of the current sample should also be kept in mind in making judgements about the generalizability of the results. The subjects in this study were college students ranging from ages 18 to 53. These subjects were pursuing interests that challenge them cognitively. Thus, the results may not be accurately generalized to all age groups or education levels. Future studies examining the relationships among the variables examined in this study should include subjects of varying ages and education levels.

The greatest limitation of the current study is the lack of observational measures of self-management and time-management skills. Students' self-report of their self-control skills may be far different from the actual demonstration of those skills. Thus, the findings of this study are restricted to what students report about their self-control skills. One cannot determine from the current study how the actual occurrence of self-control skills may be related to personality dimensions. However, the use of the Marlowe-Crowne as a control variable in the partial correlations tempers the possibility that the relationships obtained in the study are largely a reflection of social desirability tendencies.

Because the self-management and time-management variables were not consistently related to most of the Myers-Briggs dimensions, one might assume that self-control and most Myers-Briggs dimensions are relatively independent spheres. Does this mean that self-control skills could be effectively taught to a variety of personality types? Certainly, one would expect individuals with strong Judging tendencies to respond favorably to self-management and time-management training. However, it is also very likely that individuals with strong Judging tendencies would have less need of self-control training than those with other personality tendencies. For example, an individual with a Perceiving orientation might really need self-control

training, but his or her orientation might be an impediment to profiting from that training. An assessment of the impact of self-management and time-management training on various Myers-Briggs types would be a natural extension of the current research.

The interaction between self-control variables and personality dimensions in predicting students' academic performance would be another useful extension of the current research. As noted in the literature review, some self-control and personality variables have been moderately related to academic performance. Would combining these variables in some fashion increase the potential for predicting academic performance? For example, would students with SJ combinations on the MBTI and high self-control scores fare better academically than those with IP combinations and high self-control scores?

The interaction between self-control and personality variables in the health area also warrants additional attention. Previous research suggests that certain self-control and certain personality tendencies may be linked to physical and psychological health measures. Would self-control training be a way of tempering the illness tendencies of certain personality types? For example, if Introverts are more prone to psychological disturbance than Extraverts, could self-control training be used to teach Introverts more adaptive skills?

Finally, could self-control training be used to actually change one's personality type? Although the MBTI was intended to provide non-pathological measures of personality, prior research suggests that some of these characteristics (e.g., Introversion) seem to be over-represented among those having psychological difficulties. At the very least, certain personality types would not seem to mesh well with certain environmental demands. For example, if one's work demands a high level of interaction with others and good personal organization skills, an IP typology might make adaptation difficult. Could self-control training be used to change one's orientation from IP to EJ? If so, these personality dimensions might be viewed less as traits and more as states. The assumption has been that self-control characteristics are modifiable. Might personality characteristics also be changable, possibly through the application of self-control strategies?

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## **APPENDICES**

## **APPENDIX A**

**LSA ITEMS BY FACTOR****Factor 1 Performance Focus and Efficiency**

- Item 2. When confronted with many different things to do, I have difficulty deciding what is most important to do.
- Item 3. After making a decision about what is most important to do at any given time, I easily get sidetracked from that activity.
- Item 5. I have difficulty judging how long it will take me to complete a task.
- Item 10. I have difficulty matching various tasks with my energy level.
- Item 15. When I deviate from my selected goal, I have a hard time getting back on track.

**Factor 2 Goal-Directedness**

- Item 1. In most situations, I have a clear sense of what behaviors would be right or wrong for me.
- Item 7. I have a clear sense of what I most want to experience in my life.
- Item 9. I'm confused as to the kind of personal qualities I want to develop in my life.
- Item 12. I have little idea as to what I most want to achieve in my life.

### Factor 3 Timeliness of Task Accomplishment

- Item 4. Once I decide what is most important to do at any given time, I start on that task right away.
- Item 8. I complete tasks at the time I say I'm going to complete them.
- Item 11. I subdivide big tasks into a series of smaller tasks.
- Item 14. I complete major tasks well in advance of deadlines.

### Factor 4. Organization of Physical Space

- Item 6 I keep my work space well-organized.
- Item 13. I actively work to make the place where I spend a lot of time more attractive.
- Item 16. My living space is quite messy.

**APPENDIX B**

**TMQ ITEMS BY FACTOR****Factor 1 Short-Range Planning**

- Item 1. Do you make a list of the things you have to do each day?
- Item 4. Do you plan your day before you start it?
- Item 7. Do you make a schedule of the activities you have to do on school/work days?
- Item 10. Do you write a set of goals for yourself for each day?
- Item 13. Do you spend time each day planning?
- Item 16. Do you have a clear idea of what you want to accomplish during the next week?
- Item 18. Do you set and honor priorities?

**Factor 2 Time Attitudes**

- Item 2 Do you often find yourself doing things which interfere with your schoolwork simply because you hate to say "No" to people?
- Item 5 Do you feel you are in charge of your own time, by and large?
- Item 8 On an average class day do you spend more time with personal grooming than doing schoolwork?
- Item 11 Do you believe that there is room for improvement in the way you manage your time?
- Item 14 Do you make constructive use of your time?

Item 17 Do you continue unprofitable routines or activities?

Factor 3 Long-Range Planning

Item 3 Do you usually keep your desk clear of everything other than what you are currently working on?

Item 6 Do you have a set of goals for the entire semester?

Item 9 The night before a major assignment is due, are you usually still working on it?

Item 12 When you have several things to do, do you think it is best to do a little bit of work on each one?

Item 15 Do you regularly review your class notes, even when a test is not imminent?

## VITA

John S. Verble is a graduate of Harding University with a Masters degree in Counseling and Marriage and Family Therapy. Having previously worked with the Oak Ridge Family Practice, John is currently an associate of the Oak Ridge Psychiatric Association. He is a Clinical Member of the American Association of Marriage and Family Therapy. Also, John is a licensed Professional Counselor and Marriage and Family Therapist.

While working on a Ph.D. in the Department of Educational and Counseling Psychology at the University of Tennessee, he has a specialized interest in preventive mental health and cognitive-behavioral modification.