SELF-LEADERSHIP PRACTICES OF STUDENTS INVOLVED IN

CAREER AND TECHNICAL STUDENT ORGANIZATIONS

by

MARK IVESTER

(Under the Direction of Wanda L. Stitt-Gohdes)

ABSTRACT

The purpose of this study was to describe the skills associated with self-leadership of students attending a two year post-secondary technical college. Self-leadership is defined as a self-influence process through which people achieve the self-direction and self-motivation necessary to perform (Manz, 1986). The three constructs outlined in Manz's (1986) self-leadership theory served as dependent variables and included behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. Behavior-focused strategies include self-imposed ways individuals lead themselves to face the challenges, make the sacrifices, and take the necessary action to achieve a task. Often the task may be difficult, unattractive, and unpleasant, but essential. The specific strategies for an individual managing his/her behavior include self-observation, self-goal setting, self-reward, self-punishment, and self-cueing. Natural-reward strategies focus on rewards that are so closely tied to a given task or activity that the two cannot be separated. These are incentives built into doing the task. Constructive-thought patterns are habitual ways of thinking that result in a positive outcome. Examples of constructive-thought patterns include self-talk and mental imagery. The benefit of positive thinking offers the potential to help improve personal effectiveness just as much as

behavioral strategies (Neck & Manz, 2007). The primary independent variable was student membership in career and technical student organization.

This quantitative research involved surveying students. The causal comparative study consisted of two groups of students; those who were members of career and student organizations and those who were not members. The instrument selected to assess students' self-perception of self-leadership skills was the *Revised Self-Leadership Questionnaire* (RSLQ), developed by Houghton and Neck (Houghton & Neck, 2002). Data was analyzed using the Statistical Package for the Social Sciences (SPSS) 16.0. Descriptive statistics and a two-way analysis of variance (ANOVA) were calculated and the results reported.

No significant differences were found in the self-leadership strategies of students who participated in career and technical student organizations and those who did not. Additional research is needed to determine the benefits of career and technical student organizations.

INDEX WORDS: Career and Technical Student Organizations, Workforce Skills,
                Leadership, Self-leadership, Technical Education

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DEDICATION

To my wife Eleanor,

and our children Andrew, Josh, Nathan, and Marissa

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CHAPTER 1

INTRODUCTION

From newly minted college graduates to seasoned technical workers, employees are

routinely thrust into leadership opportunities with little to no formal leadership training (Pearce,

2004). According to Pearce, as organizations shift from a vertical leadership to a shared

leadership model, the need for leadership training and development increases exponentially.

Because leadership opportunities exist at every level of every organization, new employees

should be prepared to rise to the responsibilities of informal leadership, no matter the level at

which they enter the workforce (Kouzes & Posner, 2002). Informal leadership describes

employees who take charge temporarily in their organizations despite having no formal authority

over anyone (McCrimmon, 2005). According to Kouzes and Posner, college graduates need to be

ready to seize the moment when leadership opportunities emerge in the workplace.

To participate effectively in the shared leadership process, individuals must first be able

to lead themselves (Pearce & Manz, 2005; Neck & Manz, 2007). The concept of self-leadership

is often overlooked in leadership literature (Markham & Markham, 2003). Self-leadership has

been defined as a self-influence process through which people achieve the self-direction and self-

motivation necessary to perform (Manz, 1992). Self-leadership presented by Manz (1986)

represents a distinct set of strategies concentrating on behavior-focused strategies, such as self-

observation and goal setting; natural reward strategies; and thought leadership, including self-

dialogue, mental imagery, and positive thought patterns. These self-leadership strategies may be

enhanced by developing individual skills, which may improve an employee's influence within the workplace.

Developing leadership skills is a fundamental responsibility of colleges and universities (Connaughton, Lawrence, & Ruben, 2003). Historically, career and technical education is driven by employer's demand for higher skills which is created by technical changes, innovation, and a sense of heightened competition in the workplace (Carnevale, Gainer, & Meltzer, 1990). Most recently, employers are placing much more of a premium on workers with broad work and personal competencies (Miles, 1994). Miles suggested that colleges and universities emphasize specialized disciplines that relate to a specific subject. Such emphasis is very important. However, it also causes a weakness in the very area that American employers now need the most. Few college students ever encounter those general skills in a systematic way. General competencies such as responsibility, leadership, teamwork, and non-technical problem solving often are not emphasized in the higher education system. Miles continued by saying that no education system can do everything, and this is one area in which our system does not do well (Miles).

A traditional and almost universally accepted component of career and technical education at the secondary level is the career and technical student organization (CTSO) (Camp, Jackson, Buser, & Baldwin, 2000). Career and technical student organizations draw federal and local support based on their role in personal and leadership development of students (Gordon, 2003). All eight CTSO's currently recognized by the U.S. Department of Education emphasize leadership through their respective mission statements (Zirkle & Connors, 2003). These co-curricular student organizations are a constructive avenue within the technical education curriculum for students to participate in leadership activities that promote self-determination,

self-esteem, and self-efficacy (McNally & Harvey, 2001). According to Cohen and Brawer (1996), career education usually fails if it is focused only on job skills. "Knowing how to produce something is quite different from all the other requirements for sustaining employment" (Cohen & Brawer, p.243).

Background

The shift from a hierarchical, single leadership approach to a shared approach in today's organizations is a result of both top-down and bottom-up pressures (Pearce, 2004). The top-down pressures were a result of management trying to compete in a global market by reducing costs and improving efficiency. Creating a more flexible workforce by streamlining the organizational structure improved response times and fully utilized all of the knowledge within the organization. The bottom-up pressures consisted of the changing nature of the workforce and the changing desires of employees. A better educated workforce desires more than just a paycheck; workers today want an opportunity to make a meaningful impact in teamwork (Pearce). High-performing groups within organizations often do not have a formal leader; rather the leadership is distributed to those throughout the organization who have the relevant knowledge, skills, or abilities offering their views and expertise in given situations (Manz & Sims, 1984).

The growing trend of decentralization within organizations as well as role overload and role confusion on the part of supervisors has resulted in a need for a greater understanding of informal leaders (Pescosolido, 2001). As organizations downsize by reducing levels of middle management and become flatter organizations, new and/or increased roles must be assumed by other employees (Bass, 1990). Bass described informal leaders as individuals who find their base power from other individuals and receive no official recognition of position from the organization. According to McCrimmon (2005), the term informal leadership describes

employees who take charge temporarily in their organizations despite having no formal authority over anyone. According to Wheatley (1999), when people speak of informal leaders, they describe leaders who will act and respond to needs at the time. Informal leaders get so engaged in their work that defining accountabilities and roles become secondary to getting the job done (Wheatley). Recently, the concept of informal leadership is being referred to as "distributed leadership" or "shared leadership" (McCrimmon, 2005).

Shared leadership occurs when every member of the organization is fully engaged in the leadership of the organization (Pearce, 2004). Shared leadership is a simultaneous, ongoing, mutual influence process that is characterized by serial emergence of informal as well as formal leaders (Pearce). One distinction between shared leadership and more traditional forms of leadership is that the process includes peer or lateral influence in addition to upward and downward hierarchical influence processes (Bligh, Pearce, & Kohles, 2006). Literature focusing on traditional vertical leadership may be viewed as an influence on team processes as opposed to shared leadership which is carried out by the team as a whole (Perry, Pearce, & Sims, 1999). "As organizations become more comfortable with the concept of shared leadership, an explosion of leadership roles will undoubtedly be available to all levels of employees" (Carnevale, Gainer, & Meltzer, 1990, p.380).

Self-leadership is central to and plays a large role in the facilitation of shared leadership (Houghton, Neck, & Manz, 2003). Self-leadership is an individual-level construct that members bring to the group that may foster shared leadership at the organizational level (Bligh, Pearce, & Kohles, 2006). Self-leadership may be one potential antecedent of shared leadership; and through the development of self-leadership, organizations can engage in increased levels of shared leadership.

Self-leadership is defined as an influence that people exert over themselves to achieve the self-direction and self-motivation necessary to perform (Manz, 1992). Its roots can be traced back to social learning literature (Bandura, 1977), self-control literature (Thoresen & Mahoney, 1974; Mahoney & Arnkoff, 1978), and intrinsic motivation literature (Deci & Ryan, 1985). Self-leadership represents a more encompassing approach to self-influence and self-control by including both behavioral and cognitive strategies on how individuals can influence themselves (Neck & Houghton, 2006). Based on Manz's (1986) self-leadership theory, these strategies include behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies.

Behavior-focused strategies strive to enhance the self-awareness and the management of essential, sometimes unpleasant behaviors (Manz, 1992; Manz & Neck, 2007). Behavior-focused strategies include self-observation, self-goal setting, self-reward, self-punishment, and self-cueing. Natural-reward strategies focus on the inherently enjoyable aspects of a task. This includes building more pleasant and enjoyable features into activities to enhance the likelihood of the task becoming naturally rewarding. Constructive-thought pattern strategies include self-talk and mental imagery. The formation of habitual ways of thinking can result in a positive performance (Manz & Neck, 2007).

The interest in self-leadership is increasing rapidly as is evident in the attention given to the subject by both researchers and practitioners (Blanchard, 1995; Manz, 1986; Manz & Neck, 2007; Manz & Sims, 2001; Houghton & Neck, 2002). Research on the topic was advanced by the development and testing of the Revised Self- Leadership Questionnaire (RSLQ) (Houghton & Neck) as an acceptable measure of self-leadership skills and behaviors. For example, a recent study focusing on self-leadership examined the relationship between self-leadership skills and

innovative behaviors at work (Carmeli, Meitar, & Weisberg, 2006). The Revised Self-Leadership Skills Assessment (Houghton & Neck, 2002) was distributed to employees and supervisors within six organizations that explicitly believed innovation to be a key element in the organization's viability and growth. The results indicated that self-leadership skills as described by Manz (1986) were positively associated with innovative behaviors at work. Another study (Hardy, 2007) used the RSLQ in a project to develop self-leadership skills within governmental workforces. The findings showed how self-leadership strategies can influence employee behavior and shape individual performance improvements. Some other predictable outcomes associated with employees using self-leadership strategies include commitment and independence, creativity and innovation, trust and team potency, job satisfaction, psychological empowerment, and self-efficacy (Neck & Houghton, 2006). A growing body of evidence suggests a positive connection between self-leadership and work outcome (Carmeli, Meitar, & Weisberg, 2006).

Several leadership scholars have criticized self-leadership theory. Few empirical studies have been conducted in organizational settings to examine self-leadership (Neck & Houghton). This is largely due to the lack of a valid and reliable instrument to measure self-leadership. After previous attempts by Cox (1993) and Anderson and Prussia (1997), the Revised Self-Leadership Questionnaire (Houghton & Neck) emerged as an acceptable self-leadership measurement. However, the most common criticism is that self-leadership is not a unique construct (Markham & Markham, 1995). Many of the self-leadership strategies are founded on established self-motivation and self-influence theories and are considered by some scholars to be a mere repackaging of existing theories (Markham & Markham; Guzzo, 1998). In response to the critics, Neck and Houghton pointed out that self-leadership is described as a normative model and

suggests strategies on how to accomplish or alter the phenomena. In contrast, theories of motivation and self-influence that served as foundations for self-leadership explain the basic operation of the phenomena (Neck & Houghton, 2006).

Self-leadership has earned respect from many scholars as evidenced by a growing number of scholarly journal articles and its inclusion in newer management and leadership textbooks (Neck & Houghton, 2006). Since the introduction of self-leadership in the mid 1980s, a large number of practitioner-oriented, self-leadership books have been written on the subject. Most importantly from a workforce development standpoint, "business executives have also embraced self-leadership concepts through training programs designed to increase self-leadership skills and behaviors in the workplace" (Neck & Houghton, p. 272).

These higher skills desired by employers are driven by technical changes, innovation, and a sense of heightened competition (Carnevale, Gainer, & Meltzer, 1990). Change in the workplace today, in turn, is changing vocational education. Vocational reform in the 1980s and 1990s, including multiple surveys and research studies, further defined the direction of career and technical education. Included in these studies were the SCANS Reports, Workplace Basics, and America's Choice. Curtis Miles, in his work *The Mindful Worker,* summarized workforce competencies that were most widely requested in eight key national studies. Leadership, as well as attributes related to work ethic, is prevalent among the lists (Miles, 1994).

Career and technical student organizations (CTSOs) have been promoted by technical education as activities that have enhanced the vocational-technical curriculum since the Smith-Hughes Act of 1917 (McNally & Harvey, 2001; Zirkle & Connors, 2003). Career and technical student organizations are recognized on the national, state and local level and serve over 1.5

million students in related technical programs such as skilled trade, agriculture, business, health, and information technology (Cahill & Brady, 1999). Elements of focus in these organizations include: developing leadership skills, encouraging personal and social growth, and nurturing team skills (McNally & Harvey, 2001).

Of the eight nationally recognized career and technical student organizations (CTSOs) in the vocational education community, each has leadership development as its underlying mission (McNally & Harvey). Within CTSOs, many leadership development opportunities exist for participating students (Alfeld & Stone, 2007). Leadership development within CTSOs has been the subject of several research studies. White (1982) found that leadership skills of students participating in the Future Homemakers of America (FHA) increased versus non-FHA participants. Spicer (1982) found that participation in the Future Business Leaders of America (FBLA) had a positive impact on leadership ability. Townsend and Carter (1983) researched participation in Future Farmers of America (FFA) and, based on the results, suggested that leadership traits are enhanced with FFA activity related to the students' FFA participation. More recently, Wingenbach and Kahler (1997) supported the findings of an earlier study of Dormody and Seevers (1994) concluding that positive relationships existed between leadership life skill development and FFA leadership activities.

Throughout the years, advocates of career and technical student organizations have promoted the positive impact of CTSO membership. However, little research exists to support these claims of CTSO membership benefits (Zirkle & Connors, 2003). In fact, a review of 250 available documents on the subject advocated that the reports were not adequately verified and were supported by limited or weak methodologies in the areas of research and analysis (Camp, Jackson, Buser, & Baldwin, 2000). Given the uncertainty of valid documentation of CTSO

benefits, the Office of Vocational and Adult Education granted the National Research Center for Career and Technical Education $2,400,000 to conduct a large-scale study to determine the benefits of CSTO membership. The findings indicated a positive association between amount of CTSO participation and academic motivation, academic engagement, grades, career self-efficacy, college aspirations, and employability skills (Alfeld & Stone, 2007). In addition, Alfeld and Stone found participation in CTSOs to have a positive effect on leadership, community service, competitions, and professional development.

According to McNally and Harvey (2001), career and technical student organizations develop critical skills necessary for total student growth such as self-determination. Self-determination refers to the extent to which individuals take responsibility for their goals, accomplishments and setbacks. Participation in career and technical student organizations provides students with critical job skills such as motivation, employability skills, and self-efficiency (Alfeld & Stone, 2007). Many of these skills related to motivation and self-efficiency are rooted in self-leadership theory (Manz, 1983).

<center>Problem Statement</center>

Today's technical college graduates are entering a much different workplace than prior graduates. As organizations have scaled back multiple layers of management to a "flatter" organizational model, skilled workers' requirements for performing repetitive tasks have been reduced; and workers now require a broader set of skills that in the past was only required of supervisors and managers. Organizational structures are being built upon teams and committees that lend themselves to shared leadership (Pearce & Sims, 2003).   In shared leadership environments, workers at all levels of the organization are thrust into informal leadership roles that will be short term and include no structural authority over anyone. This organizational trend

creates a critical role for all employees as informal leaders in today's workplace. Technical college graduates must develop leadership skills that will improve their influence within the workplace.

<h2 style="text-align:center">Purpose</h2>

The purpose of this study was to describe the skills associated with self-leadership of students attending North Georgia Technical College. Self-leadership is defined by Manz (1986) as a self-influence process through which people achieve the self-direction and self-motivation necessary to perform. The three constructs outlined in Manz's (1986) self-leadership theory serves as dependent variables for this study. These constructs are behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. The primary independent variable was student membership in career and technical student organization while attending North Georgia Technical College.

<h2 style="text-align:center">Research Objectives</h2>

The specific objectives to be addressed in this study were to:

1. Describe the self-leadership strategies used by students attending North Georgia Technical College;

2. Compare the interactive effect of use of behavior-focused strategies in students who participate in career and technical student organizations and those who do not by gender;

3. Compare the interactive effect of use of natural-reward strategies in students who participate in career and technical student organizations and those who do not by gender;

4. Compare the interactive effect of use of constructive-thought pattern strategies in students who participate in career and technical student organizations and those who do not by gender.

Significance of Study

A study of self-leadership strategies that are practiced by students at North Georgia Technical College is significant for several reasons. The literature may assist faculty and administrators in understanding the importance of addressing self-leadership strategies as well as occupational skills that are needed to obtain and maintain employment. Also, the research provided baseline data as to what self-leadership strategies are least used and should be emphasized in future training. Another importance of the study is the ability to analyze the self-leadership skills practiced by students who participate in career and technical student organizations while attending North Georgia Technical College versus those who do not. Career and technical student organizations are available to post-secondary students and may be an option for colleges to enhance student leadership skills. Currently, little emphasis is placed on encouraging students to participate. Finally, the study adds to the scholarly research and literature in the field of self-leadership and career and technical student organizations.

The intended outcome of the study was to provide baseline data as to how students describe how they lead themselves based on the strategies outlined in the self-leadership theory (Manz, 1986). The results can be helpful to the value and emphasis technical colleges place on CTSOs. Recognizing the need for expanding the students' occupational specific training to include leadership training is important for college administrators

CHAPTER 2

REVIEW OF LITERATURE

Introduction

This chapter begins with an historical overview of leadership. The theory of self-leadership (Manz, 1986) then is discussed in detail and is included as a foundation for this study. A validated assessment tool, The Revised Self-Leadership Questionnaire (Houghton & Neck, 2002) is discussed with regard to measuring self-leadership including three dependent variables of behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. In addition, an historical overview of technical education and career and technical student organizations is included. A search for the literature was conducted on the internet and at the University of Georgia library. Key phrases searched were career and technical student organizations, workforce skills, leadership education, student leadership initiatives, and self-leadership.

Evolution of Leadership Theories and Paradigms

The way leadership is described has evolved over the years. Rost (1991) suggested that from the study of leadership in the early 1900s to the present that hundreds of definitions of the term have been produced. Generations of leadership theories over time can be categorized in many ways. For the purposes of this review, leadership theories were summarized using the following categories: great man theory, behavioral approach, contingency theories, transformational theories, conventional theories, and self-leadership theory. As the paradigm shifts, some ideas were abandoned and some carried forward.

Great Man Theory

In the late nineteenth century and during the early part of the twentieth century, leadership theories were characterized by Darwinist thinking that focused on the belief that leaders possessed inherited attributes that made them great men (Bass, 1990). The theories were called "great man" theories because they focused on the individual's innate qualities presumed to make them a leader. Strong beliefs that men were born with special leadership qualities were reinforced by the historical context and the social structures of the period which provided little opportunity for common people to become social, political, and industrial leaders (Nahavandi & Malekzadeh, 1999). Leadership research during this era concentrated on determining specific traits that clearly distinguished leaders from followers (Bass, 1990).

As leadership research continued to shift from who the leader was to the specific qualities of leaders, varying lists of personal traits would emerge. Stogdill (1948) analyzed more than 124 trait studies conducted between 1904 and 1947. Stogdill's study showed that average individuals who were called leaders were different from the average group members in intelligence, alertness, insight, responsibility, initiative, persistence, self-confidence, and sociability. Stogdill's findings indicated that individuals do not become leaders solely because of their personal traits. The traits that leaders possess must be relevant to the situation. Leaders in one situation may not be leaders in another situation. Stogdill concluded situational factors were more important than the personality of the leader. In a second study, Stogdill (1974) analyzed 163 new studies and compared those to the first study. The results lead to a determination that a balance of situational factors and leader personalities are key factors in a leader's success.

Behavioral Approach

Researchers during the trait era focused on identifying who would be an effective leader and on those personal characteristics possessed by that individual. In the late 1940's a paradigm shift occurred in the focus of leadership research from trait identification to observing behaviors of effective leaders (Nahavandi & Malekzadeh, 1999). The "one best way" approach to leading was the phrase used when describing the objective of behavioral research. Several advantages resulting from this paradigm shift were the ability to better observe and measure the behaviors of a leader as opposed to the leader traits. Furthermore, researchers determined that as opposed to traits which are innate or developed at a very young age, behaviors can be taught and, thus, learned (Nahavandi & Malekzadeh).

The behavioral approach era of leadership produced noted research including the Ohio State studies, the Michigan State studies, and Blake and Mouton. The first of these studies were conducted in the late 1940s at The Ohio State University. In the Ohio State studies questionnaires were constructed from a list of more than 1,800 items describing aspects of a leader's behavior and distributed to hundreds of subordinates in education, military, and industrial settings. The 150-question survey established certain clusters of behaviors that exist among leaders. Of these behaviors, consideration for workers and initiating structure were the most common. Consideration behaviors include tasks such as organizing, defining roles and responsibilities, and scheduling work activities. Behaviors associated with initiating structure are relationship behaviors and include building trust, respect, and linking leaders and followers. Similar to trait studies, by only focusing on the behavior, the situation in which the leader functioned was not included (Nahavandi & Malekzadeh, 1999).

The University of Michigan leadership studies identified two types of leadership behaviors, called production orientation and employee orientation (Bowers & Seashore, 1966). Production orientation describes a leader's behavior that is orientated toward the technical aspects of the job and getting the work done. Employee orientation describes the behavior of a supervisor that addresses the personal needs of employees and takes an interest in workers' individual and personal needs. The production-orientation style of behavior of supervisors resulted in higher employee turnover, absenteeism, and lower over-all job satisfaction than the employee-orientation style. However, both the supervisors exemplifying production-orientation behaviors and supervisors exemplifying employee-orientation behaviors were similarly successful in production measures (Montana & Charnov, 2000). The study concluded that leadership styles are flexible. Supervisors can change the mix of task orientation and employee orientation strategies as the situation requires.

Blake and Mouton's Managerial Grid was developed in the early 1960s from the behavioral data of the University of Michigan Studies and the Ohio State Studies (Blake & Mouton, 1964). The model has been revised several times and is now known as the leadership grid (Blake & McCanse, 1991). The two dimensions of behaviors described in this model are concern for people and concern for production (Blake & Mouton). Concern for people refers to leaders building organization commitment and trust, promoting good working conditions, and promoting good social relations. Concern for production includes leader focus on product development, process issues, new product development, and workload. Various locations on the grid indicate the different levels of the two behaviors incorporated into a leader's style. Similar to the results associated with other behavioral leadership research during this era, the Managerial Grid does not indicate any one best style of leadership. Critics of the Managerial Grid argue that

leadership is not just two dimensional and that situational factors must be assessed as part of leadership effectiveness (Northouse, 2004).

Contingency Approach

The contingency era of leadership began in the 1960s and brought forth the idea that there is no one best way to lead. Different leadership styles, traits, and behaviors can be effective in different situations (Nahavandi & Malekraveh, 1999). The most widely recognized of the contingency approaches of leadership is Fiedler's (1964) contingency theory. Fiedler studied the styles of many different leaders and the situations in which they worked. Fiedler's (1967) model categorized leadership styles as task motivated or relationship motivated. Task indicated an individual's primary focus was on reaching a goal while the relationship-motivated style focused on developing interpersonal relationships. The theory also suggested that situational variables can be placed in three groups: leader-member relations, task structure, and position power. Leader-member relations refer to the degree of confidence and loyalty within the atmosphere of a group. Task structure refers to the detail in which the tasks are spelled out for the group. Finally, position power refers to the degree of authority that a leader has within the group. Fiedler's Contingency Theory provided an effective framework for matching the leader and the situation (Northouse, 2004).

Hersey and Blanchard (1969) also developed a contingency leadership model. The focus of this model was that different situations demand different leadership styles. The model suggested leaders should adapt their leadership style to fit the situation. The Situational Leadership II (Blanchard, 1985) is a refinement of the original leadership model and suggests four leadership styles: delegating, supporting, coaching, and directing. The model takes into account the development level of subordinates. The development level refers to the degree of

competence and commitment a follower has to accomplish as a specific task. Based on the development level of a leader's subordinates on a given task, a specific style is suggested for effective leadership (Blanchard, Zigarmi, & Zigarmi; 1985). By using this model, a leader can consistently adjust his/her leadership style to meet the needs of followers.

Transformational leadership

Transforming leadership theory was formulated by James MacGregor Burns in 1978. Burns (1978) defined transforming leadership as "a process where leaders and followers raise one another to higher levels of morality and motivation" (p. 20). Transforming leadership can result "in a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents" (Burns, 1978, p. 20).

Burns distinguishes between two types of leadership - transactional and transformational. According to Burns, transactional leadership focuses on the exchange between a leader and a follower. For example, managers who offer promotions to employees who accomplish a goal exhibit transactional leadership. On the other hand, transformational leadership refers to the process of leaders and followers creating an exchange that raises each other up through the process. A classic example given by Burns for transformational leadership is Mohandas Gandhi. Gandhi raised the expectations of millions of people and in the process he was changed himself (Burns, 1978). Manz and Sims reinforced Burn's idea of empowering employees through their concept of SuperLeadership which occurs when leaders promote self-leadership within their organization so that leaders lead others to lead themselves (Manz & Sims, 1994).

In the 1980s, Bass provided an expanded and refined version of transformational leadership, which was based on Burns's work but was not fully consistent with the prior works of Burns. Bass extended Burns's work by focusing more on the followers' needs instead of the leaders'

needs. Bass also extended prior work on charisma by suggesting that charisma is a necessary but not a sufficient condition of transformational leadership (Bass, 1985).

Conventional Theories

In the 1990s Wheatley (1999) focused on the changing nature of leadership within chaotic organizational systems. According to Wheatley, we need a leadership approach that links people, not ranks them. Leadership does not reside in the position of an individual but in their connectedness among other individuals who are connected within networks of the organization. Burns (1978) suggested that organizations must place a higher degree of importance on the roles people assume than on the positions they hold. In a shared leadership model information is freely shared and people are trusted to make sense of the information because they know the organization's purpose and mission (Wheatley, 1999). This is much different than the traditional leadership model where information was passed up the line for decisions to be made by a single leader. According to Wheatley, the traditional approach is less effective in the world of complex organizations.

Shared leadership occurs when all employees of an organization are fully engaged in the leadership of the organization (Pearce & Manz, 2005). Mutual influence among individuals that involves the emergence of a leader is an ongoing process within shared leadership. Shared leadership involves individuals from all levels of the organization to accept leadership roles throughout the leadership process. Preparation and training for individuals in complex organizations where shared leadership is encouraged includes enhancing individual self-leadership skills (Pearce & Manz, 2005).

Self-Leadership

Self-leadership is a concept that first emerged in the 1980s as an expansion of self-management and is rooted in the self-control theory (Manz, 1986; Cautela, 1969). Self-leadership has been defined as "a self-influence process through which people achieve the self-direction and self-motivation necessary to perform" (Neck & Houghton, 2006, p. 271). Charles Manz is credited with introducing the term and concepts of self-leadership into the workplace (Manz, 1983). According to Manz (1986), the three primary categories of self-leadership are behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. For the purpose of this study, each of these categories will represent a dependent variable.

The dependent variable of behavior-focused strategies focuses on increasing an individual's self-awareness in order to facilitate a change in behavior (Manz & Neck, 2004). This approach to self-leadership focuses on self-imposed strategies by individuals that result in a desired behavior. The concept of behavioral-focused strategies is rooted in social learning theory (Bandura, 1977), behavioral self-control theory (Mahoney & Thoresen, 1974; Thoresen & Mahoney, 1974), self-regulation theory (Kanfer & Karoly, 1982), and self-management theory (Andrasik & Heimburg, 1982).

Self-regulation occurs when an individual strives to reduce discrepancies between actual behaviors and standard behaviors or goals (Carver, 1979; Carver & Scheier 1981). One key component of the self-regulation theory is the confidence one has in oneself. If an individual lacks confidence, when discrepancies occur, alternative goals may be sought. Individuals with confidence and positive attitudes are more likely to work to reduce the discrepancy between the actual behavior and the standard. According to the self-regulation theory (Carver & Scheier),

self-regulation depends on feedback from a superior in charge that determines how an individual "should" perform and conform in organizational settings. This theory also suggests that everyone has innate self-regulators; however, not all are effective. Certain skill sets listed as self-behavioral strategies included in the self-leadership theory are observation, goal setting, self rewards, self punishment, and self cueing (Houghton & Neck, 2002). Self-leadership operates within the broad theoretical framework of self-regulation. Furthermore, self-leadership prescribes, along with behavioral strategies, specific cognitive strategies designed to enhance an individual's self-regulation (Neck & Houghton, 2006).

Two early attempts were made to develop a self-leadership instrument. Both efforts used a prototype created by Manz and Sims and rooted in the self-leadership literature (Manz, 1986, 1992; Manz & Sims, 1987, 1991) as a basis for a more psychometrically sound instrument (Houghton & Neck, 2002). Cox (1993) developed a 34-item self-leadership questionnaire used to compare the leadership behaviors of individuals who participated in leadership training and those who did not. The field study results did not show a difference in the two groups; however, the instrument created has shown some preliminary potential as a self-leadership assessment scale (Houghton & Neck). Anderson and Prussia (1997) designed a 90-item self-leadership questionnaire that was also based in the self-leadership theory of Manz. The 90 questions were submitted to a panel of 18 judges who assigned the questions to three categories of self-leadership or eliminated the question from the survey (Anderson & Prussia). They determined that 50 questions exceeded the criteria of one of the three theoretical self-leadership categories. Houghton (Houghton & Neck) continued research using the self-leadership instrument which resulted in a validated instrument that resulted in a statistical analysis showing consistency of self-leadership characteristics with self-leadership theory. The Revised Self-Leadership

Questionnaire (Houghton & Neck, 2002) was selected for this study because the instrument was specifically designed to measure the three variables of self-leadership defined in Manz's Self Leadership Theory.

Self-leadership also operates within the context of the social learning theory (Manz, 1986). Social learning theory proposes that behavior is affected by the interaction of the individual's behavior, internal processes, and external forces (Bandura, 1977). In this process, a sensor monitoring performance in the environment yields a signal that is compared to a standard or desired state (Manz, 1986). When a difference exists, a behavioral adjustment can be implemented. The self-regulation theory deals solely with reducing discrepancies while social learning theory deals with discrepancy production followed by discrepancy reduction.

Self-efficacy is a key element within the social learning theory. Self-efficacy is an individual's self-assessment of the capability necessary to perform a specific task. It provides an important link to self-leadership in that it influences an individual's aspirations, effort, and persistence of thought patterns (Bandura, 1977).

The theory of self-management (Manz & Sims, 1980) implies that individuals will chooses less desirable behaviors in the short run in order to perhaps experience more desirable behaviors in the long run. Self-management is founded on the concepts of self-control (Cautela, 1969; Mahoney & Thorensen, 1974). Several skill sets introduced by the self-control theory are included in self-leadership. These skill sets include self-observation, self-goal setting, cueing, self-reinforcement, and self-punishment. The study of self-control was originated as an attempt to address personal problems such as addictive smoking, alcoholism, and eating disorders. Standards are externally set; and although individuals may have some input in how discrepancies from actual behavior to standard may be reduced, the standard is not questioned.

Behavior-focus strategies within self-leadership include self-observation skills. The first step necessary toward altering one's current behavior is self-observation (Mahoney & Arnkoff, 1978). Self-observation is one's awareness of when, why, and under what conditions certain behaviors occur (Manz, 1992). An accurate observation of one's own behavior does not come naturally (Thoresen & Mahoney, 1974). Techniques used in self-observation include keeping journals to record the frequency and duration of targeted behaviors. Taking notes indicating the conditions that exist when the behaviors occur is also encouraged. Based on the information obtained during the self-observation process, an individual can set certain goals that can lead to performance improvement (Manz, 1986). Questions used to measure self-observation on the Revised Self-Leadership Questionnaire are "I usually am aware of how well I'm doing as I perform an activity" and "I keep track of the progress on projects I'm working on" (Houghton & Neck, 2002).

Self-goal setting provides specific direction for self-leadership. Goals are defined as the end toward which effort is directed (Webster's New Collegiate Dictionary, 1981). Research suggests that individuals can enhance performance levels by setting and accepting personal goals (Locke & Latham, 1990). "The systematic, thought-out, intentional setting of personal goals can influence our behavior positively" (Neck & Manz, 2007, p. 22). Manz (1992) recommended that personal goals should be specific, challenging, concrete, and reasonable. Letting others know about your goals may provide an added incentive. Setting goals takes time and effort and most likely goals will change over time; however, it is important to have goals to provide direction for individual efforts. Questions from the Self-Leadership Questionnaire that are designed to measure self-goal setting are "I think about the goals I intend to achieve in the future" and "I write specific goals for my own performance" (Houghton & Neck, 2002).

Self-reward is one of the most powerful behavioral strategies that can impact self-leadership (Manz, 1992). Individual behaviors can be positively influenced on a physical or mental level by rewarding oneself when desirable activities or behaviors occur. On a physical level, rewards resulting from a desirable behavior might be a night out for dinner and a movie. According to Manz, the important thing is to establish a reward that is enjoyable to the individual and would be an incentive for future desired behaviors. Internal speech is an example of influence on a mental level (Neck & Manz, 2007). Many times after the successful accomplishment of major task, an individual may reward themselves by inwardly self-praise. The key to self-reward is identifying desirable behaviors and praising those accomplishments by enjoyable and pleasant rewards (Manz, 1992). The questions on the Revised Self-Leadership Questionnaire designed to measure self-rewarding behavior are "When I do an assignment especially well, I like to treat myself to some thing or activity I especially enjoy" and " When I have successfully completed a task, I often reward myself with something I like" (Houghton & Neck, 2002).

Self-punishment operates much like the self-reward process of behavioral strategies in that it focuses on self-applied consequences for behavior (Neck & Manz, 2007). The difference is self-punishment applies negative results toward undesired behaviors rather than positive self-applied results to desirable behaviors. According to Manz (1992), habitual guilt and self-criticism impairing motivation and creativity may result in many individuals who rely too heavily on self-punishment. Research indicates that self-punishment may not be effective on individual behavior due to human nature of punishment being unpleasant and the ability to freely avoid self-punishment (Neck & Manz, 2007). Manz (1992) suggested that individuals reserve self-punishment for seriously negative behaviors. Two sample questions from the Revised Self-

Leadership Questionnaire that measure self-punishment are "I tend to get down on myself in my mind when I have performed poorly" and "I sometimes openly express displeasure with myself when I have not done well" (Houghton & Neck, 2002).

Cues are reminders and attention focusers located in the surroundings of an individual and have a positive or negative influence on behavior (Neck & Manz 2007). An example of cueing is notes placed on the refrigerator door as reminders of weekly family activities. Placing signs in work areas can create motivational thinking. Decreasing negative cues can be as productive in achieving desired behaviors as increasing positive cues. An example of this would be removing undesirable objects or noises in the surrounding area. According to Bandura's (1977) social learning theory, the environment plays an important role in behavior and how people react with one another. "I use concrete reminders (e.g., notes and lists) to help me focus on things I need to accomplish" is a sample from the Revised Self-Leadership Questionnaire designed to measure self-cueing behavior (Houghton & Neck, 2002).

The dependent variable of natural rewards focuses on the enjoyable aspects of a task or activity. Natural rewards are so closely tied to the task that they cannot be separated. Incentives are built into the task itself, and the person is motivated by doing the task itself (Manz, 1992; Manz & Neck, 2007). Natural-rewards strategies are based upon the intrinsic motivational theory (Deci & Ryan, 1985). Intrinsic motivation occurs when a person engages in a task to experience the pure pleasure of doing the activity. Two primary features of naturally rewarding tasks are the increased feelings of competence and self-control gained by an individual engaged in these activities. Suggestions provided by Manz (1992) as key self-leadership strategies that develop natural rewards include identifying and building task activities you enjoy doing and meet your responsibilities, redesigning tasks you don't like, and developing the habit of dwelling on what

you like in your job. Sample questions from the Revised Self-Leadership Questionnaire that measure an individual's focus on natural rewards are "I find my own favorite way to get things done" and "I focus my thinking on the pleasant rather than the unpleasant aspect of my job (school) activities" (Houghton & Neck, 2002).

The dependent variable of constructive-thought pattern strategies is an internal approach focused on thinking. The mental thoughts in our psychological world may be more important to self-leadership than our behaviors in our physical world (Neck & Manz, 1992, 2007). Constructive-thought pattern strategies include positive self-talk, identifying and replacing dysfunctional beliefs, and mental imagery (Neck & Manz, 2007). Individuals have a choice as to what thoughts enter the mind, and these choices can influence attaining personal goals (Bandura, 1986). According to Manz (Neck & Manz), self-talk is what you say to yourself. These words spoken to yourself can help you perform better on the tasks you are responsible for completing.

An individual's beliefs can significantly impact his or her actions or feelings. Manz (Neck & Manz, 2007) gave the example of an Olympic weight lifter who could lift 499 pounds but could not lift 500 pounds for the life of him. One day his partners placed 501.5 pounds on the bar and rigged the weights so it appeared to be 499 pounds. The weight lifter lifted it with ease. The mental barrier to his accomplishment was removed. According to Manz (1992), strategies that may be used for improving an individual's belief system include identifying tasks for which your beliefs significantly impact your actions and feelings, analyzing the accuracy of your beliefs, questioning whether your beliefs positively or negatively affect your actions, isolating your inaccurate and /or dysfunctional beliefs and challenging them, and identifying more positive functional beliefs to take their place.

Finally, mental imagery is important in the self-thought process. Mental imagery is the symbolic, covert, mental invention or rehearsal of an experience or task in the absence of actual, overt physical muscular movement (Driskel, Cooper, & Moran, 1994). Through the use of mental imagery it is possible to create and symbolically experience outcomes prior to the physical event (Neck & Manz, 1992). Empirical research provides support for the practice of mental imagery and suggests it has both positive and significant effects on individual performance outcomes (Driskel, Cooper, & Moran).

Business executives have embraced self-leadership concepts through training programs designed to increase self-leadership skills in the workplace. Many corporations are experimenting with new organizational charts that describe more fluid patterns of relationships (Wheatley, 1999). W. L. Gore and Associates is one such highly successful company that provides its employees an organizational structure that creates levels of freedom for self-leadership (Pearce & Manz, 2005). In 1958 Bill Gore left DuPont after 17 years as a research chemist and established W. L. Gore and Associates, a manufacturer of a diverse product line including electronic products, fabrics, industrial products, and medical products (Anfuso, 1999). Headquartered in Newark, Delaware, Gore operates in 45 locations around the world and employees 6,500 associates.

W. L. Gore may be the flattest company of its size in the world (Pearce & Manz, 2005). The organizational structure is free from bosses and hierarchies in which associates would normally need to push decisions through. Employees are referred to as associates; and because associates do not have job titles, they are not locked into a specific task; thus, they can take on new and challenging tasks. The absence of a hierarchy defining a predetermined channel of communication encourages associates to communicate with each other (Anfuso, 1999).

According to Anfuso, the commitment throughout the organization to four company values is the

key to escaping chaos. Gore's corporate values include fairness to each other, freedom to help

other associates grow, ability to make one's own commitment and keep them, and consultation

with other associates before undertaking actions that could impact the reputation of the company.

In annual surveys conducted by the human resource department, at least 50 % of associates

answer yes to the question "Are you a leader?" According to Pacanowski (1988), at Gore the

issue is not who or what position will address a problem, but what energy, skill, influence, and

wisdom are available to contribute to the solution. Gore's culture is one where an advanced spirit

of self-leadership is at the heart of the organization (Pearce & Manz, 2005).

Leadership roles within an organization may be structurally defined. Traditional

leadership positions in the workplace tend to be white collar jobs that carry titles such as

president, chief financial officer, manager, or director. However, leadership opportunities often

emerge from within an organization through informal leadership (Connaughton, Lawrence, &

Ruben, 2003). The workplace today has placed an emphasis on empowering employees at all

levels of the organization. Jobs with titles such as project manager, committee chairmanship, and

team leader indicate that leadership opportunities exist for employees at lower levels within an

organization. Blue collar workers, in lower- to mid-range levels within the organizational

structure, receive training outside of four-year liberal arts institutions. As organizational

structures become more horizontal, information is more readily available to all employees,

allowing everyone to engage in decision-making processes (Connaughton, Lawrence, & Ruben).

Today's changing workplace is seeking graduates with skills beyond the occupational

skills needed to perform basic job tasks. Connaughton, Lawrence, and Ruben stated,

The influence of market economics, the proliferation to technology, and the emergence of new democracies characterize the global arena at the dawn of the 21st century. It is impossible to determine precisely what knowledge and competencies will be required to address the opportunities and challenges of our rapidly changing international environment. It is certain, however, that leadership competencies will be increasingly essential in the United States and around the world. (p. 46)

In order to adequately prepare students for today's changing workplace, at minimum, technical colleges must provide training that satisfies the requirements in the workplace.

Technical college graduates do not typically enter the workforce in an organization at the management level. Students are trained to perform skills such as welding, accounting, automobile repair, machining, and healthcare. While some management know-how is taught at the technical college level, most of those skills are emphasized at four-year colleges and universities. However, as large organizations move away from a hierarchical structure by allowing all levels of the organization to make decisions, students who graduate with technical skills also need to be trained in some basic leadership skills.

<div align="center">History of Technical Education</div>

Throughout history, two types of education have evolved -- education for work and education for culture. For many years education for work was provided through apprenticeships. In contrast, education for culture has been delivered through the medium of books using formalized instruction (Scott & Sarkees-Wircenski, 1996). Vocational education, as we know it today, originated in the early part of the 20th century. Factors contributing to the vocational education movement occurred during the 19th century. However, the historical roots can be traced to ancient times with significant European connections (Gordon, 1999). Early technical

schools such as Gardiner Lyceum, established in 1823, and Rensselaer School, established in 1824, provided instruction in the areas of mathematics, science, and agriculture (Bennett, 1926). Following the Civil War, the reconstruction period demanded a new type of trade school that could prepare workers for employment in the expanding industrial economy. The Hampton Institute in Virginia established in 1868 and the William Free School of Mechanical Trades established in 1891 are examples of trade schools founded to meet the post-war reconstruction needs of the late 1800s (Barlow, 1967).

At the turn of the 20th century, the idea of using schools to train young people for work created a major movement to reform American education while in the midst of a new industrialized society (Kantor, 1986). Discussions concerning the idea of junior colleges teaching occupational education were raised at the American Association of Junior Colleges (AAJC). The AAJC played a critical role in leading the direction of terminal degrees (Cohen & Brawer, 1996). Beginning in 1917 with the Smith-Hughes Act, federal legislation played an important role in shaping technical and career education. "Two of the most important influences that have shaped vocational education, both at its inception and now, are federal legislation and philosophies about the nature of vocational education" (Rojewski, 2002, p. 8) Both of these influences -- federal legislation and vocational educational philosophies -- provide historical perspectives to technical and career education. Additionally, vocational education philosophies provide an explanation as to the focus of content area expertise as compared with basic workplace attributes.

Legislation

The United States (U.S.) Constitution makes no provision for federal support or control of education of any kind. However, the federal government has considered supporting vocational education as being in the nation's best interest by providing federal legislation (Gordon, 1999).

The Morrill Act of 1862 was the first legislation passed by the national government in support of vocational education (Barlow, 1967). The primary purpose of this act was to promote the liberal and practical education of the industrial classes in pursuit of professions of living (Gordon, 1999). The Smith-Hughes Act of 1917 was the first vocational education act for high schools, and it contained several elements that contributed to the segregation of vocational education from other parts of high school curriculum (Gordon, 1999). This legislation is important to secondary as well as post-secondary education because it emphasized the training of job-specific skills to the exclusion of the traditional academic curriculum.

The 1963 Vocational Education Act and the amendments of 1968 and 1972 vastly increased the federal funds available to post-secondary vocational educational programs (Cohen & Brawer, 1996). Additional funding was provided by other federal programs such as Job Training Partnership, Job Opportunities and Basic Skills, Omnibus Trade and Competitiveness, Worksite Literacy, and Cooperative Education. This vocational education legislation came at a time when career education enrollments began growing at rates greater than liberal arts enrollments (Cohen & Brawer, 1996). Prior to this time, in the 1920s and 1930s, one of the reasons that vocational training was not very attractive to students was because it was not necessary to go to high school to get a job in a factory (Kantor & Lowe, 2000). By the late 1930s high school graduation was a prerequisite for many white-collar jobs with some college courses desired. One of the major purposes of the act was to maintain, extend, and improve existing programs of vocational education and to provide part-time jobs for youth who needed money to continue school.

Another significant change in federal policy and direction for career and technical education was the shift from an exclusive focus on job preparation to a shared purpose of

meeting economic demands that also included a social component (Rojewski, 2002). The 1968 amendment of the Vocational Educational Act emphasized vocational education in post-secondary institutions (Scott & Sarkees-Wircenski, 1996). This was an effort to assist those in the labor market in need of retraining.

The Carl D. Perkins Vocational Act of 1984 amended the Vocational Act of 1963 and replaced the 1968 and the 1972 amendments. This act contained an economic as well as a social goal. The economic goal was to improve the skills of the labor force and prepare adults for jobs. The social goal was to provide equal opportunity for adults in vocational education (Gordon, 1999). This changed the emphasis of federal funding in vocational education primarily from expansion to program improvements and at-risk populations.

Later amendments to the Perkins act focused on preparing the workforce in a global economy. Major goals of the amendments were (a) integration of academic and vocational education, (b) articulation between segments of education engaged in workforce preparation, and (c) closer linkages between school and work (Gordon, 1999). Finally, in the Carl D. Perkins Vocational and Applied Technology Act of 1990 (PL 101-392), an emphasis was placed on academic standards as well as vocational programs (Rojewski, 2002). According to Rojewski, some educators believed this change in emphasis is one of the most significant policy shifts in the history of federal legislation in vocational education. The most notable features in the most recent 2006 amendment of Perkins are the uses of the term "career and technical education" instead of "vocational education" and the continuation of the Tech Prep program as a separate federal funding stream with the legislation (Gordon, 2008).

Philosophic Perspectives of Career and Technical Education

At the turn of the 20th century, vocational education attracted attention from people across a wide spectrum of political and economic interests. Not only businessmen, corporate leaders, and efficiency-oriented educators but also labor leaders, liberal reformers, and radical intellectuals joined the debate concerning various forms of vocational education (Kantor, 1986). Oftentimes these groups had different opinions about the goals of career and technical education. Some believed the mission should be job-skill specific, while others thought additional life skills should be taught (Kantor). This debate has lasted throughout the past century and continues today.

Two strong advocates for vocational education – Charles Prosser and John Dewey -- are noted for their views on technical education. Prosser and Dewey, strong supporters of vocational education in public schools, agreed that vocational education had the potential for making public education more democratic (Gordon, 1999). But, Prosser and Dewey had different views about what should be taught as vocational education. Prosser's essentialist views placed an emphasis on practical experience and financial incentives. According to Prosser (1939), education should be specific in nature and students must be taught to think and work with the things related to the task at hand. His work and development of 16 theorems based on his philosophy and the economic impact of the industrial revolution during that time provided direction in the development of vocational education. Prosser's work greatly influenced the first legislation resulting in the Smith-Hughes Act of 1917 (PL 64-347).

Dewey believed that culture should be included in the teaching of vocational education (Dewey, 1916).

Occupation is a concrete term for continuity. It included the development of artistic

capacity of any kind, of special scientific ability, of effective citizenship, as well as

professional and business occupations, to say nothing of mechanical labor or engagement

in gainful pursuits. (p. 359)

Dewey's pragmatic view saw vocation as activities related to education and training that would

help individuals succeed in their careers and in life.

The major goal of the school based on Prosser's philosophy was to meet the needs of

industry and prepare people for the workforce. In contrast, Dewey's conviction was that the

school should meet the needs of individuals and prepare them for life. The early acceptance of

Prosser's essentialist views resulted in the emphasis of content in vocational education. In the

last several decades this approach has been criticized, resulting in a movement toward Dewey's

more pragmatic philosophy (Gordon, 1999).

Change in the workplace today, in turn, is changing vocational education. Higher skills

desired by employers are driven by technical changes, innovation, and a sense of heightened

competition (Carnevale, Gainer, & Meltzer, 1990).Vocational reform in the 1980s and 1990s,

including multiple surveys and research studies, further defined the direction of career and

technical education. Included in these studies were the SCANS Reports, Workplace Basics, and

America's Choice. Curtis Miles, in his work *The Mindful Worker,* summarized the workforce

competencies that were most widely requested in eight key national studies. Leadership, as well

as attributes related to work ethic, is prevalent among the lists (Miles, 1994).

<div align="center">Career and Technical Student Organizations</div>

Career and technical student organizations have a long, rich history tracing back to the

early 1900s. The national association for Career and Technical Student Organizations (CTSO)

was established in 1926, and the Future Farmers of America (FFA) was established in 1928 as a national organization (Reese, 2003). The federal government considers vocational education to be in the national interest and has provided support of vocational educational student organizations in federal legislation (Gordon, 1999). The first legislation to mention vocational student organizations was the George-Barden Act of 1946, which stated that funds could be used for teacher activities related to vocational agriculture student organizations (Vaughn, 1998). This legislation opened the door for vocational student organizations. In 1950, a law commonly referred to as PL 740 was passed, which officially chartered the Future Farmers of America. This legislation established an integral relationship of the vocational student organizations to the instructional programs and directly involved the U.S. Department of Education in supporting vocational student organizations (Gordon, 1999).

Vocational student organizations were referenced in the Vocational Act of 1963, along with the amendments in 1968 and 1972. The 1963 legislation broadened vocational education by including more flexibility and advisory services (Mobley & Barlow, 1965). This provided for activities for vocational student organizations in the definition of vocational instruction. The Carl D. Perkins Vocational Act of 1984 (PL 98-524) included student organizations. Vocational education was defined as educational programs that were directly related to employment in occupations that required less than a baccalaureate degree, and vocational student organization activities are an important part of the program (Vaughn, 1998). The Carl Perkins Vocational and Applied Technology Education Act of 1990 defined vocational student organizations as organizations for individuals to engage in activities as an integral part of the instructional program. Such organizations may have national, state, and local levels.

Vocational student organizations allow students to learn leadership skills, participate in community service projects, and experience career exploration opportunities (Cahill & Brady, 1999). Ten vocational student organizations are recognized by the U.S. Department of Education. Most of the organizations serve secondary and post-secondary education (Gordon, 1999). The post-secondary organizations continue the secondary schools' focus of developing students' potential in their chosen career areas. The post-secondary career and technical student organizations and the year founded are as follows: Future Farmers of America (1928); Phi Beta Lambda (1943); Distributive Education Clubs of America (1945); Home Economics Related Occupations (1945); Vocational Industrial Clubs of America (1965); Health Occupational Students of America (1976); National Post-secondary Agricultural Student Organization (1979); Business Professionals of America (1988) (Gordon, 1999).

Benefits of Student Organization Membership

Studies by Ernest Boyer, Arthur Levine, and Alexander Astin confirm a trend in college students of growing individualism and a declining interest in politics and civic engagement (Astin & Antonio, 2000). Higher education institutions have responded to this trend by establishing leadership development programs designed to benefit students by instilling in them the importance of human issues in the world today (Astin & Antonio). McCannon and Bennett (1996) suggested two benefits to students participating in leadership opportunities in colleges. First, students want to include the activity or membership on a resume. Second, students want to meet people with similar interests. Student involvement in leadership opportunities can enhance job opportunities by building resumes and making contacts. Schuh (1983) stated "the influence of holding a student leadership position on life satisfaction indicated that the co-curricular

involvement of students is positive in such areas of personal development such as cultural awareness, societal concerns and personal and social skills" (p. 29).

Researchers have found that students who have been members of student organizations possess more leadership abilities than nonmembers. Townsend and Carter (1983) studied the relationship of participation in FFA activities and found that leadership characteristics are enhanced by participation. Specifically, the study found that active participation in leadership roles in the organization seemed to result in higher personal development; hence students should be encouraged to participate in the organization to it fullest extent (Townsend & Carter). The research was conducted using the Leadership Skills Inventory (LSI) developed by Carter and Townsend at Iowa State University in 1981.

Boyd (1991) used the LSI in 1991 in a study conducted at Texas A&M University to determine if Texas 4-H club members had developed leadership life skills and to establish if this skill development was related to their participation in the Texas 4-H program. The study compared Texas 4-H club members to youth who had never participated in the Texas 4-H club program. The Texas 4-H program consisted of approximately 13,000 students. The non-member population consisted of approximately 1,375,184 youth in grades 7 through 12 of the Texas public school system. Approximately 500 4-H members and 800 nonmembers who were randomly selected provided a sample group of youth. The results of Boyd's research (1991) indicated that low relationships existed between 4-H participation and the development of skills in working with groups, understanding self, communicating, and making decisions. A moderate relationship existed between 4-H participation and the scale leadership.

Vocational education's commitment to student organizations stems from the belief that the total development of individuals is essential to the preparation of competent workers.

Research and experience have shown that student organizations are designed to allow students a vehicle for exploring interests in an occupational field and to learn and refine leadership, social, and citizenship skills (Harris & Sweet, 1981). According to Cohen and Brawer (1996), career education usually fails if it is focused only on job skills. "Knowing how to produce something is quite different from all of the other requirements for sustaining employment" (Cohen & Brawer, p. 243).

Leventhal (1999) suggested that students who are involved in vocational student organizations are able to (a) gain more poise and confidence and strengthen their personality traits, (b) gain professional experience and establish professional contacts within their occupational field, and (c) be more likely to be involved in community affairs and public organizations, schools organizations, and church groups. The National Advisory Council on Vocational Education ("Vocational student organizations, 7th report," 1972) produced a report referred to as the Seventh Report that stated:

> These student organizations have supplied their members with the incentive and guidance, which we recognize now as essential to bring relevance to education. We believe that they are neglected resources, which can make great contributions toward expanding the options available to our nation's body. Students are deeply involved at every stage. The organizations provide an indispensable emphasis on career and civic awareness, social competence, and leadership ability. (p. 1)

The literature reviewed earlier in this section suggests that some of these leadership and work ethics skills can be enhanced by vocational student organizations. Based on these positive impacts to individuals entering the workplace and our communities, local institutions and governments alike should be able to justify the allocation of resources for student organizations.

One other rationale for institutions to allocate resources for student organizations in post-secondary career and technical education is that student retention gains from student involvement are similar to those found in four-year colleges and universities. Tinto suggested that two-year institutions, like larger four-year colleges and universities, are painfully aware of the need to increase their rates of program completion, which nationally are barely a third of all beginning full-time students (Tinto & Russo, 1994). Most community colleges, unlike most residential colleges, find themselves in situations where student involvement is quite difficult to achieve (Kuh, 2003). Most two-year institutions are nonresidential and a large number of their students are older, employed, and have multiple obligations that constrain their involvement in college. However, according to Tinto (Tinto & Russo), involvement can be obtained in community colleges. One approach is to establish small learning communities in which group interaction is provided and encouraged among students. Student involvement pays dividends in the area of student retention (Tinto & Russo).

According to Schuh (1983), what is significant for growth and development is that students hold leadership positions. Where they hold them seems to have little influence, if any, on the quality of the student leadership experience.

After surveying all the internet sites of Georgia's technical colleges, I found that many student organizations exist. Most of them are occupational related; some, however, were related to cultural and religious issues. Student organizations provide technical college students an opportunity to engage in and benefit from student activities.

CHAPTER 3

METHOD

Technical college graduates are routinely thrust into leadership roles with little or no

formal leadership training. Leadership opportunities are becoming more prevalent in all levels

within an organization due to the downsizing strategies widely used by companies to improve

efficiency and competitiveness (Bass, 1990). Downsizing creates flatter organizations with

fewer levels of middle management resulting in new and/or increased roles that must be assumed

by other employees. The need for leadership training has grown exponentially as organizations

shift from a vertical to a shared leadership model (Pearce, 2004). In fact, eight national studies

conducted in the 1980s and 1990s suggest that leadership, as well as attributes related to work

ethic, were among the most requested by industry (Miles, 1994). The demand from employers

for workers with leadership skills is a direct result of high-performing groups within

organizations who often do not have a formal leader. Leadership is distributed to employees

throughout the organization who have the relevant knowledge, skills, or abilities and are willing

to offer their views and expertise in given situations (Manz & Sims, 1984).

Employers' demand for higher skills, which is created by technical changes, innovation,

and competition in the workplace, drives career and technical education (Carnevale, Gainer, &

Meltzer, 1990). Developing leadership skills that will enhance workers' ability to be successful

during employment is a fundamental responsibility of colleges (Connaughton, Lawrence, &

Ruben, 2003). Technical education needs to focus on more than just technical job skills.

Mastering a technical skill and the knowledge of how to produce something is quite different

from all the other requirements for sustaining employment (Cohen & Brawer, 1996).

Technical programs in secondary and post-secondary education emphasize leadership skills through career and technical student organizations (CTSOs). Students' participation levels in the secondary CTSOs are much higher than participation in post-secondary organizations. These co-curricular student organizations promote personal and social growth skills as well as embrace leadership development as their underlying mission. CTSOs are funded on national, state, and local levels. Several studies focusing on CTSOs found that participation has a positive impact on general leadership skills (Alferd & Stone, 2007; Wingenbach & Kahler, 1997; Dormody & Seevers, 1994; Townsend & Carter, 1983; Spicer, 1982). Most recently, the National Research Center for Career and Technical Education, administered by the Office of Vocational and Adult Education, provided $2,400,000 to research the leadership and employability skills development of students participating in CTSOs (Alferd & Stone, 2007). During the course of an academic year, a pre-test/post-test comparison of high-school students in career and technical education (CTE) classes that included a CTSO and CTE classes without a CTSO was conducted. With the exception of the college-bound students, the scores of the CTSO participants remained higher than those of students in the other two groups on all measures. A positive association between the extent of CTSO participation and academic motivation, career self-efficacy, and employability skills was found. Holding a leadership position in an organization did not significantly affect the outcome (Alferd & Stone).

Leadership opportunities exist at every level of every organization. New employees must be prepared to rise up and seize responsibilities for informal leadership opportunities (Kouzes & Posner, 2002). Informal leaders are employees who temporarily take charge with no official authority over anyone (McCrimmon, 2005). To be effective at leading others, one must first be

able to lead oneself (Pearce & Manz, 2005; Neck & Manz, 2007). Self-leadership is defined as a self-influence process through which people achieve the self-direction and self-motivation necessary to perform (Manz, 1992). Self-leadership presented by Manz (1986) includes behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. Behavior-focused strategies strive to enhance the self-awareness and the management of essential and sometimes unpleasant tasks. Specifically these strategies are self-observation, self-goal setting, self-reward, self-punishment, and self-cueing. Natural-reward strategies focus on the inherently enjoyable aspects of a task. Constructive-thought pattern strategies include forming habitual ways of thinking that result in a positive performance using techniques such as self-talk and mental imagery. Studies show that self-leadership strategies can influence employee behavior and shape individual performance behavior (Manz, 1986).

The purpose of this study was to describe the skills associated with self-leadership of students attending North Georgia Technical College. Self-leadership is defined by Manz (1986) as a self-influence process through which people achieve the self-direction and self-motivation necessary to perform. The three constructs outlined in Manz's (1986) self-leadership theory served as dependent variables for this study. These constructs were behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. The primary independent variable was student membership in a career and technical student organization (CTSO) while attending North Georgia Technical College.

The research study was designed to generate and analyze data that could be used by decision makers at a Georgia technical college regarding students' self-reported self-leadership strategies, specifically as an impact of these strategies as a result of participating in career and technical student organizations. Membership in CTSOs is not encouraged as strongly at the

technical colleges as it is in the high schools. The results may be critical to the value and emphasis technical colleges place on CTSOs.

Research Objectives

The specific objectives to be addressed in this study are to:

1. Describe the self-leadership strategies used by students attending North Georgia Technical College;

2. Compare the interactive effect of use of behavior-focused strategies in students who participate in career and technical student organizations and those who do not by gender;

3. Compare the interactive effect of use of natural-reward strategies in students who participate in career and technical student organizations and those who do not by gender;

4. Compare the interactive effect of use of constructive-thought pattern strategies in students who participate in career and technical student organizations and those who do not by gender.

Design

The research design was causal comparative. Causal-comparative research designs seek to discover possible causes and effects of personal characteristics by comparing individuals in whom an independent variable is present with those in whom it is absent or exists to a lesser degree (Gall, Gall, & Borg, 2003). Causal-comparative designs are typically used when cause and effect relationships between a categorical independent variable and one or more dependent variables are examined. However, the independent variable is not manipulated in this type of research design. By studying naturally occurring groups of students who differ in terms of participation in career and technical student organizations, I had the opportunity to determine whether these groups also exhibit differing levels of self-leadership strategies. The primary

advantage of a causal-comparative research design is that it provides a means of exploring causal

relationships in situations that are not amenable to experimental approaches. The primary

disadvantage of causal-comparative designs is because participants are not randomly assigned to

groups, it is not possible to rule out all extraneous variables as the source of variation across

groups. Therefore, any conclusions drawn concerning causality must be considered tentative

(Gall, Gall, & Borg, 2003). Numerous studies exploring benefits of career and technical student

organizations have used causal-comparative approaches (Alferd & Stone, 2007; Wingenbach &

Kahler, 1997; Dormody & Seevers, 1994; Townsend & Carter, 1983; Spicer, 1982).

In this study, the primary independent variable was membership status in CTSOs while

enrolled at North Georgia Technical College (a nominal variable indicating participation or no

participation). The dependent variable reflects self-leadership competencies and skills. The three

constructs used to define self-leadership in this study are behavior-focused strategies, natural-

reward strategies, and constructive-thought pattern strategies. Data reflected how participants

perceive their self-leadership skills.

Threats to the internal validity of this study exist due to the lack of randomization

inherent in a causal-comparative design (Gall, Gall, & Borg, 2003). Participation in student

organizations is made by self selection. This may introduce some bias into the results. For

example, students who participate in student organizations may already possess leadership

characteristics and are predisposed to join. Another threat is students may have opportunities

outside of college such as church or community in which to develop leadership skills.

Participants

The population for this study was comprised of students enrolled in Introduction to

Computers (SCT 100) or Employability Skills (EMP 100) during the winter quarter 2010 at

North Georgia Technical College (NGTC). NGTC serves an eight-county service area in the northeast corner of Georgia. Students attend classes on three campuses located in Clarkesville, Blairsville, and Toccoa, Georgia. Based on the *Credit Enrollment Summary Data Report* (2010), total credit enrollment for the winter 2010 quarter was 2,091 students, of which 1,089 students were enrolled full-time. Full-time students must be enrolled in 12 or more credit hours for a quarter (Technical College System of Georgia [TCSG], 2010). NGTC's student population reflects a racial distribution of 91.4% White, 5.4% Black, and 1.4% Hispanic backgrounds. Female students comprise 59.3% of the student population. Of the 2,091 people enrolled, 890 students are 26 years of age or older, which classifies them as nontraditional students. Students at NGTC may be enrolled in any of 28 diploma programs, 57 technical certificate classes, or 14 associate and applied technology degree programs offered by the college.

The accessible sample is all students enrolled in Introduction to Computers (SCT 100) and Employability Skills (EMP 100) during the 2010 winter quarter. The courses were selected because of the requirements for all students to complete both courses. SCT 100 is an entry-level computer course, and academic advisors encourage students to take the course during the beginning of the student's course work. EMP 100 is an employability skills course designed to help students learn the techniques of finding a job and is encouraged by advisors for students to take toward the end of their program. Choosing these two programs to survey provided very little chance for replication and allowed the survey to be spread across all technical programs for greater randomization.

Classes begin each weekday morning, Monday through Thursday, at 7:45 AM and continue until 10 PM each evening. The total number of potential participates was 712 students. According to Krejcie and Morgan (1970), a population of 712 requires obtaining a sample of at

least 254 participants to allow for generalization. Due to the low response rate often typical in survey research (Keppel, 1991; Salant & Dillman, 1994), over sampling was utilized as a technique to generate the required number of returned surveys. Therefore, for traditional on-campus classes, all students enrolled in the Introduction to Computers (SCT) or Employability Skills (EMP) courses during the winter 2010 quarter and who attended class on the day that the survey was distributed were asked to participate. An additional 13 students participating in SCT 100 and EMP 100 via the internet responded to the on-line survey. Overall, this group of students provides a relatively homogeneous group that consists of students who were members and students who were not members of CTSOs. Participation in career and technical student organizations provide students with critical job skills such as motivation, employability skills, and self-efficiency (Alfeld & Stone, 2007). Many of these skills related to motivation and self-efficiency are rooted in self-leadership theory (Manz, 1982).

Instruments

The instrument selected to assess students' self-perception of self-leadership skills was the *Revised Self-Leadership Questionnaire* (RSLQ), developed by Johnathon Houghton and Christopher Neck (2002) (see Appendix A). The *Leadership Skills Inventory* (Townsend & Carter, 1983) and the *Leadership Competencies and Skill Questionnaire* (Badal, 2000), which were designed to measure leadership development in student organizations, were also considered as possible instruments for this research. The RSLQ was chosen for this study because the instrument was designed specifically to measure the three variables of self-leadership defined in Manz's Self-Leadership Theory. The RSLQ has been used in a number of self-leadership studies (Carmeli, Meitar, & Weisberg, 2006; Houghton & Neck, 2002; Hardy, 2007; Neck & Houghton, 2006). Approval to use the RSLQ was obtained from the author (see Appendix B).

The original attempt to devise an instrument to measure self-leadership was developed by Cox (1993). The 34-item instrument is based on eight sub-scales: self-problem solving initiative, efficacy, teamwork, self-reward, self-goal setting, natural rewards, opportunity thought, and self-observation. More recently, the *Self-Leadership Questionnaire* (Anderson & Prussia, 1997) was an excellent attempt at a self-leadership development scale (Neck & Houghton, 2006). However, the SLQ, consisting of 50 questions, suffered from numerous psychometric problems and needed further refinement. The *Revised Self-Leadership* Questionnaire (Houghton & Neck, 2002) created an instrument building upon the previous two existing measures of self-leadership. The primary basis for the revised instrument is the *Self-Leadership Questionnaire* developed by Anderson and Prussia in 1997. This modification included deleting 17 ambiguous questions from the 50-item Anderson and Prussia instrument and adding two items from the Cox instrument. It was determined that some of the sub items in the Cox instrument did not represent the three primary dimensions in Manz's (1986) self-leadership theory.

The refined instrument (Houghton & Neck, 2002) was used for this study and consists of 35 questions that correspond to three internal subscales including behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. Responses are based on a 5-point Likert-type scale with 5=Completely accurate, 4=Mostly accurate, 3=A little accurate, 2=Somewhat accurate, and 1=Not at all accurate. A higher numeric value for a particular statement will indicate a stronger self-perception of the skill. The coefficient alphas of the RSLQ sub-scales range from .74 to .93, whereas .70 is a commonly recommended level.

Behavior-focused strategies focus on increasing self-awareness, leading to the management of behaviors involving necessary by sometimes unpleasant tasks (Manz, 1992). Behavior-focused strategies are represented by 18 of the 35 items on the questionnaire. These 18

questions focus on various dimensions that represent behavior-focused strategies such as self-goal setting, self-reward, self-punishment, self-observation, and self-cueing. Items revolving around setting goals are most frequent with a total of five items.

Natural-reward strategies are aimed at realizing the enjoyable aspects of a given task (Manz, 1992). Natural-reward strategies are represented by five of the items in the questionnaire. Examples of natural-reward items included "I seek out activities in my work that I enjoy doing" and "I find my own favorite ways to get things done."

The remaining 12 survey questions represent constructive-thought pattern strategies. These strategies involve the establishment of habitual thinking (Manz, 1992). These items relate to behaviors such as visualizing successful performance, self-talk, and evaluating beliefs and assumptions. Specific items relating to constructive-thought pattern strategies include "I think about and evaluate the beliefs and assumptions I hold" and "Sometimes I talk to myself (out loud or in my head) to help me deal with a difficult situation." Each of the 35 survey items are distributed throughout the instrument and are not organized by sub-scale.

A brief section to gather demographic information relating to the participants' gender, age, and involvement in career and technical student organizations (CTSOs) was included at the beginning of the survey. The participant was also asked to select from a list including CTSO, church, community service, or other that has been most beneficial in developing leadership skills. These six questions were reviewed by knowledgeable professionals and adjustments were made for clarity. The additional six demographic questions lengthened the survey to 41 questions. The estimated time to complete the survey was 15 minutes.

Procedures

In order to comply fully with the University of Georgia's policy on activity involving human subjects, an application for conducting this study was submitted to and approved by the University's Institutional Review Board (IRB). A letter advising participants of the purpose of the study and the confidentiality of their responses was attached to each survey. No participant names were included on questionnaires and data were reported only in aggregate.

The questionnaire packets were distributed to students enrolled in Introduction to Computers (SCT 100) and Employability Skills (EMP 100). Students enrolled in SCT 100 and EMP 100 on-line were sent an email requesting a response to the same survey on-line. According to Krejcie and Morgan (1970), a population of 712 requires obtaining a sample of at least 254 participants to allow for generalization. The researcher visited each of the classes to distribute the survey in order to achieve maximum response rates.

The research process and general timeline was followed. Unless otherwise noted responsibility for all activities rests with the researcher.

1. Proposal was submitted to the researcher's doctoral dissertation committee for approval.

2. Proposal was submitted to the UGA IRB.

3. The IRB approval to survey students at North Georgia Technical College was sent to the college president.

4. A list of offerings including time and location for EMP 100 and SCT 100 for the winter 2010 quarter was obtained from the Department of Academic Affairs.

5. Participant packets including consent forms, demographic data questionnaires, and survey instruments were created.

6. The researcher administered all surveys.

7. During a two-week time span, the researcher visited every traditional SCT 100 and EMP 100 class taught during the winter 2010 quarter on all three NGTC campuses. Eight sections of EMP 100 and 35 sections of SCT 100 were offered. Eleven of these 35 sections were internet classes.

8. The researcher remained in the classroom and collected all surveys.

9. After all students taking SCT 100 and EMP 100 on all three campuses have been surveyed, the data analysis began.

Data Analysis

The data was analyzed using the Statistical Package for the Social Sciences (SPSS). The first six questions on the survey asked demographic questions which provided a description of the students participating in the survey. The first research question described the overall self-leadership strategies of the participants. The remaining three research questions compared the self-leadership perception of CTSO members to non-CTSO members as defined by the following three internal scales of analysis: behavior-focused strategies, natural-reward strategies, and constructive-thought strategies. The focus of the study, self-leadership, was designed using these three subscales (each serve as a dependant variable) and measured using a 5-point Likert-type scale with 5=Completely accurate, 4=Mostly accurate, 3=A little accurate, 2=Somewhat accurate, and 1=Not at all accurate. The primary independent variable, membership status, is categorical, while the dependent variables were each reported as continuous data. Gender was treated as an additional independent variable.

Table 1

Research Objectives, Variables and Analysis

Research Objectives	Independent Variable	Dependent Variable	Analysis
Describe the self-leadership strategies used by students attending North Georgia Technical College.			Mean, standard deviation, percent
Compare the interactive effect of use of behavior-focused strategies in students who participate in career and technical student organizations and those who do not by gender.	1. Membership-either member or nonmember 2. Gender	Behavior-focused strategies	Two-way ANOVA

Compare the interactive effect of use of natural-reward strategies in students who participate in career and technical student organizations and those who do not by gender.	1. Membership-either member or nonmember 2. Gender	Constructive-thought pattern strategies	Two-way ANOVA
Compare the interactive effect of use of constructive-thought pattern strategies in students who participate in career and technical student organizations and those who do not by gender.	1. Membership-either member or nonmember 2. Gender	Constructive-thought pattern strategies	Two-way ANOVA

The quantitative data is reported in the style recommended by the American

Psychological Association (APA). Table 1 provides a reference for the method of analysis,

variables, research questions and survey questions for this research study. A two-way variance

of analysis (ANOVA) was the statistical analysis used based on three general assumptions. The assumptions are that the scores form an interval or ratio scale of measurement, the scores in the populations under study are normally distributed, and the score variances for the populations under study are equal (Lomax, 2001).

CHAPTER 4

RESULTS

The purpose of this study was to describe the skills associated with self-leadership of students attending a 2-year post-secondary technical college. Self-leadership is defined by Manz (1986) as a self-influence process through which people achieve the self-direction and self-motivation necessary to perform. The three constructs outlined in Manz's (1986) self-leadership theory served as dependent variables. These constructs were behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. The primary independent variable was student membership in career and technical student organizations (CTSOs). CTSOs are co-curricular organizations that have developed numerous activities to assist their members in improving job-related skills such as leadership, personal characteristics, and employability skills (McNally & Harvey, 2001).

This research study used an instrument developed by Houghton and Neck (2002), the *Revised Self-Leadership Questionnaire* (RSLQ). The RSLQ was chosen for this study because the instrument was designed specifically to measure the three variables of self-leadership in Manz's Self-Leadership Theory. The RSLQ has been used in several other studies (Carmeli, Meitar, & Weisberg, 2006; Hardy, 2007; Houghton & Neck; Neck & Houghton, 2006). The RSLQ consists of 35 Likert-type questions that correspond to three internal subscales including behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. Responses are based on a 5-point Likert-type scale with 5=Completely accurate, 4=Mostly accurate, 3=A little accurate, 2=Somewhat accurate, and 1=Not at all accurate. A

higher numeric value for a particular statement will indicate a stronger self-perception of the skill. This research study described students' self-perceived self-leadership strategies as they pertained to behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. Participants also responded to six demographic questions.

Behavior-focused strategies include self-imposed ways individuals lead themselves to face the challenges, make the sacrifices, and take the necessary action to achieve a task. Often the task may be difficult, unattractive, and unpleasant, but essential. The specific strategies for an individual managing his/her behavior include self-observation, self-goal setting, self-reward, self-punishment, and self-cueing. Natural-reward strategies focus on rewards that are so closely tied to a given task or activity that the two cannot be separated. These are incentives built into doing the task. Constructive-thought patterns are habitual ways of thinking that result in a positive outcome. Examples of constructive-thought patterns include self-talk and mental imagery. The benefit of positive thinking offers the potential to help improve personal effectiveness just as much as behavioral strategies (Neck & Manz, 2007).

Results of this study were designed to be used by decision makers at Georgia technical colleges regarding students' self-reported self-leadership strategies, specifically as an impact of these strategies as a result of participating in career and technical student organizations. This study provided answers to the following research questions:

1. Describe the self-leadership strategies used by students attending North Georgia Technical College.

2. Compare the interactive effect of use of behavior-focused strategies in students who participate in career and technical student organizations and those who do not by gender.

3. Compare the interactive effect of use of natural-reward strategies in students who participate in career and technical student organizations and those who do not by gender.

4. Compare the interactive effect of use of constructive-thought pattern strategies in students who participate in career and technical student organizations and those who do not by gender.

This chapter presents the results of the analyses conducted to describe the demographics of the participants and address each of the research questions posed. Study analyses included descriptive statistics and analyses of variance. Separate comparative analyses were conducted assessing the effect of each independent variable on each of the dependent variables, using a significance level of 0.05 (alpha = 0.0125 for each test). This chapter includes a summary of participant demographics and of independent variables descriptive statistics, a report of the ANOVA analysis, an overview of participants' perceptions of self-leadership strategies, and concludes with a brief summary.

Analysis of Research Questions

The population for this action research study was students enrolled in Introduction to Computers (SCT 100) or Employability Skills (EMP 100) during the winter quarter 2010 at North Georgia Technical College.

Based on Krejcie and Morgan's (1970) table, 254 student participants were needed to meet the required sample size for a population of 750. Due to the low response rate often typical in survey research (Keppel, 1991; Salant & Dillman, 1994), over sampling was utilized as a technique to generate the required number of returned surveys. Therefore, for traditional on-campus classes, all students enrolled in the Introduction to Computers (SCT) or Employability Skills (EMP) courses during the winter 2010 quarter and who attended class on the day the

survey was distributed were asked to participate. The survey distribution resulted in 388 usable

student responses. An additional 13 students participating in SCT 100 and EMP 100 via the

internet responded to the on-line survey. As a result, the request for participation from a possible

712 students generated 401 usable student responses, meeting the requirements recommended by

Krejcie and Morgan and yielding a 56% response rate.

The first six questions asked demographic questions which provided a description of the

participants. The first demographic question addressed the age of the participants. The four age

categories were based on the same demographic categories used by the technical college when

collecting student demographics using college surveys. Fifty-nine percent of students

participating in career and technical student organizations were 25 years of age or younger as

compared to 52.7% of non-members and 57.6% of the student body. Table 2 provides a summary

of the age demographic including the technical college's related demographic data.

Table 2

Demographic – Age

Age Group	NGTC Student body (n = 2,091)	CTSO Member (n = 44)	Not CTSO Member (n = 357)
25 or under	57.6% (1,201)	59.1% (26)	52.7% (188)
26 – 30	11.1% (231)	11.4% (5)	14.3% (51)
31 – 40	15.9% (330)	6.8% (3)	13.7% (49)
Over 40	15.4% (329)	22.7% (10)	19.3% (69)

The second demographic question asked participants' gender. Overall, the students at

North Georgia Technical College were 59.3% female and 40.7% male. Participants who

indicated membership in a career and technical student organization (CTSO) were 63.6% male and 36.4% female as compared to those participates not members of CTSOs who were 45.7% male and 54.3 % female.

Demographic question three asked the participants who were members of a career and technical organization while enrolled at North Georgia Technical College to identify in which organization he or she was a member. Of the 44 students involved in career and technical student organizations, 15 indicated membership in Phi Beta Lamdba (PBL), 26 indicated membership in Skills USA, one indicated membership in Health Occupations Students of America (HOSA), and two participants did not specify an organization. Question number four focused on the level of involvement within the organization by asking participants if they were an officer in the organization. Of those participants holding office, two were members of PBL, eight were Skills USA, and one HOSA.

Question five addressed the length of time the member participants had been affiliated with the student organization. Students typically are enrolled at North Georgia Technical College from one to two years. However, some students may have an extended enrollment period due to seeking degrees in multiple programs. Of the participants involved in a career and technical student organization, 76.7% indicated being involved one year or less, 11.6% indicated one to two years, 2.3% indicated two to three years, and 9.3% indicated being involved more than three years.

The final demographic question asked the participants to indicate from a list of organizations, which one had been most beneficial in developing their leadership skills. The responses from all participants, members and non-members, are included in table 3 below.

Table 3

Organization Most Beneficial Developing Leadership Skills

Organization	CTSO Member	%	Non-CTSO Member	%
CTSO	20	45.5%	3	.8%
Church	6	13.6%	135	37.8%
Community	6	13.6%	46	12.9%
Other	7	15.9%	41	11.5%
No Response	5	11.4%	132	37.0%
Total	44		357	

Research Question 1

Describe the self-leadership strategies used by students attending North Georgia Technical College.

The students' responses to the survey asking how accurate various self-leadership activities described their actions yielded an overall response of "a little accurate." Of the three self-leadership categories, students indicated that natural-reward strategies best described how they lead themselves. Student responses indicated that activities related to constructive thought-pattern strategies were a little accurate when describing how they lead themselves. Behavior-focused strategies least accurately described the way in which self-direction and self-motivation is attained when completing a task. Table 4 shows the statistical means and standard deviation for each variable.

Table 4

Means and Standard Deviations for Self-Leadership Strategies

Variable	Mean	Standard Deviation
Behavior focused	3.659	.694
Natural reward	3.887	.735
Constructive thought pattern	3.687	.694

Note. Mean is based on the following responses: 1 = Not at all accurate, 2 = somewhat accurate,

3 = a little accurate, 4 = mostly accurate, 5 = completely accurate.

 Research Question 2

Compare the interactive effect of use of behavior-focused strategies in students who participate

in career and technical student organizations and those who do not by gender.

Table 5 provides the cell means and standard deviations for each variable.

Table 5

Mean Scores for Behavior-focused Strategies (with Standard Deviations in Parenthesis)

Variable	Member (n = 44)	Non-member (n = 357)	Marginal Means
Female	3.91 (.646)	3.81 (.671)	3.82 (.668)
Male	3.37 (.644)	3.50 (.688)	3.48 (.682)
Marginal Means	3.56 (.690)	3.67 (.695)	3.66 (.694)

Note. Mean is based on the following responses: 1 = Not at all accurate, 2 = somewhat accurate,

3 = a little accurate, 4 = mostly accurate, 5 = completely accurate.

A two-way analysis yielded the interaction effect was non-significant, $F(1,397) = 1.096$,

$p>.05$. A main effect for gender, $F(1,397) = 14.42$, $p<.05$, such that the average score was

significantly higher for women (M = 3.48, SD = .682). The main effect of membership was non-significant, F (1,397) = .039, p>.05. Table 6 summarizes the ANOVA results for the data. Levene's test of homogeneity of variances for behavior-focused strategies measure did not indicate a departure from the ANOVA assumption of variance equality.

Table 6

Behavior-focused Strategies – ANOVA results

Source	Df	Mean Square	F	P	Partial Eta Squared
Member	1	.018	.039	.884	.000
Gender	1	6.572	14.417	.000	.035
Member*Sex	1	.500	1.096	.296	.003
within-group	397	.456			

R Squared = .061 (Adjusted R Squared = .054)

Research Question 3

Compare the interactive effect of use of natural reward strategies in students who participate in career and technical student organizations and those who do not by gender.

There were no significant differences in natural-reward strategies based on the scores obtained from students who were members in career and technical student organizations (CTSOs) and non-members when comparing the two groups. Table 7 provides the cell means and standard deviations for each variable.

Table 7

Mean Scores for Natural-reward Strategies (with Standard Deviations in Parenthesis)

Variable	Member (n = 44)	Non-member (n = 357)	Marginal Means
Female	4.23 (.570)	3.98 (.712)	4.00 (.704)
Male	3.65 (.907)	3.79 (.721)	3.77 (.750)
Marginal Means	3.86 (.841)	3.89 (.722)	3.89 (.735)

Note. Mean is based on the following responses: 1 = Not at all accurate, 2 = somewhat accurate, 3 = a little accurate, 4 = mostly accurate, 5 = completely accurate.

The interaction effect was non-significant, $F (1,397) = 2.514$, $p>.05$. A two-way analysis yielded a main effect for gender, $F (1,397) = 10.25$, $p<.05$, such that the average score was significantly higher for women (M = 4.0, SD = .704) than for men (M = 3.77, SD = .750). The main effect of membership was non-significant, $F (1,397) = .211$, $p>.05$. A significant main effect was obtained for gender, $F (1,397) = 10.25$, $p=.001$. Table 8 summarizes the ANOVA results for the data.

Table 8

Natural-reward Strategies – ANOVA results

Source	Df	Mean Square	F	P	Partial Eta Squared
Member	1	.111	.211	.646	.001
Gender	1	5.402	10.251	.001	.025
Member*Sex	1	1.325	2.514	.114	.006
Within-group	397	.527			

R Squared = .031 (Adjusted R Squared = .024)

Research Question 4

Compare the interactive effect of use of constructive thought-pattern strategies in students who participate in career and technical student organizations and those who do not by gender.

There were no significant differences in constructive thought-pattern strategies based on the scores obtained from students who were members in career and technical student organizations (CTSOs) and non-members when comparing the two groups. Table 9 provides the cell means and standard deviations for each variable.

Table 9

Mean Scores for Constructive-thought Pattern Strategies (with Standard Deviations in

Parenthesis)

Variable	Member	Non-member	Marginal Means
	(n = 44)	(n = 357)	
Female	3.82 (.583)	3.74 (.753)	3.74 (.740)
Male	3.48 (.698)	3.65 (.744)	3.62 (.738)
Marginal Means	3.60 (.672)	3.70 (.749)	3.69 (.741)

Note. Mean is based on the following responses: 1 = Not at all accurate, 2 = somewhat accurate,

3 = a little accurate, 4 = mostly accurate, 5 = completely accurate.

A two-way analysis yielded a main effect for gender, $F(1, 397) = 3.10$, p>.05, such that

the average score was not significantly higher for women (M = 3.74, SD = .740) than for men (M

= 3.62, SD = .738). The main effect of membership was non-significant, $F(1,397) = .148$, p>.05.

The interaction effect was non-significant, $F(1,397) = 1.059$, p>.05. Table 10 summarizes the

ANOVA results for the data.

Table 10

Constructive-thought pattern Strategies – ANOVA results

Source	Df	Mean Square	F	P	Partial Eta Squared
Member	1	.081	.148	.701	.000
Gender	1	1.697	3.100	.079	.008
Member*Sex	1	.580	1.059	.304	.003
Within-group	397	.547			

R Squared = .010 (Adjusted R Squared = .003)

Summary

Chapter four has described and presented, in appropriate detail, the results of this research study. A two-way ANOVA was used to determine what effect membership and gender has on self-leadership. The results of this study revealed no significant differences in self-leadership strategies as they related to behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies between students who are members of career and technical student organizations and those students who are not members while attending North Georgia Technical College. The analysis did show a significant effect in female students over male students in the use of behavior-focused strategies and natural-reward strategies. The answers to the research questions, based upon the findings supported by this study, are summarized and discussed in Chapter Five

.

CHAPTER 5

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Rationale

This study found no significant differences in the use of self-leadership skills among those students who were members in career and technical student organizations and non-members. The small sample size resulting from a decreasing membership and the results of several demographic questions provides some interesting discussion and conclusions.

Employers are seeking graduates who can exceed the traditional technical skills of an occupation by exhibiting the transferable skills necessary to succeed as informal leaders of the workforce today (Kouzes & Posner, 2002; Manz & Sims, 1984). Technical colleges are tasked with the responsibility of building a better workforce for tomorrow. The shared leadership environment that exists in organizations today, demand graduates to perform as informal leaders at entry-level positions. This study focuses on career and technical student organizations as an opportunity for technical colleges to provide leadership development for students. However, these organizations cannot do the job alone.

The literature reviewed by this researcher recognized that college graduates must have the ability to do more than the technical skills of an occupation to maintain employment (Kouzes & Posner, 2002; Manz & Sims, 1984). Throughout the downsized workforce today, workers are called upon to be informal leaders. College graduates need to be ready to perform successfully as informal leaders. During the past two decades, multiple surveys and research studies report that one of the worker competencies most widely requested by industry is leadership (Miles, 1994).

On a local level, chambers of commerce, industry advisory groups, and employers are satisfied with the technical competencies of graduates but voice concern over the lack of self-leadership skills such as self-motivation and self-discipline demonstrated by recent graduates entering the workforce.

Career and technical student organizations (CTSOs) may be one possible solution for developing leadership skills. Dating back to the Smith Hughes Act of 1917, CTSOs have been promoted by technical education as activities that have enhanced the vocational-technical curriculum (Zirkle & Connors, 2003). Career and technical student organizations are supported by federal, state, and local funds. Of the eight nationally recognized CTSOs, each has leadership development as its underlying mission (McNally & Harvey, 2001).

Purpose

The purpose of this study was to describe the skills associated with self-leadership of students attending North Georgia Technical College. Self-leadership is defined by Manz (1986) as a self-influence process through which people achieve the self-direction and self-motivation necessary to perform. The three constructs outlined in Manz's (1986) self-leadership theory served as dependent variables for this study. These constructs are behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. The primary independent variable was student membership in career and technical student organizations.

Method

This quantitative study was conducted winter quarter 2010 at North Georgia Technical College to describe students' skills that are associated with self-leadership.

Design

A causal-comparative research design was used to compare the interaction of self-leadership skills in members of career and technical student organizations and non-members by gender. Causal-comparative research designs discover possible causes and effects of personal characteristics by comparing individuals in whom an independent variable is present with those in whom it is absent or exists to a lesser degree (Gall, Gall, & Borg, 2003). A two-way ANOVA was used to analyze the data. The primary independent variable in this study was membership in career and technical student organizations while enrolled at North Georgia Technical College (a nominal variable indicating participation or no participation). Another independent variable was gender. The dependent variable reflects self-leadership competencies and skills. Behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies were the three constructs used to define self-leadership in this study. Data reflected how students perceive their self-leadership skills.

Participants

The population for this study was students enrolled in Introduction to Computers (SCT 100) or Employability Skills (EMP 100) during winter quarter 2010 at North Georgia Technical College. These courses were selected because all students must complete both courses, therefore providing a good cross-section of students from all programs. SCT 100 is an entry-level computer course that advisors encourage students to take near the beginning of their coursework. Employability Skills is a course designed to instruct students in the techniques of finding a job and is encouraged by advisors to be taken near the end of the student's coursework. All students enrolled in SCT 100 or EMP 100 during the winter 2010 quarter were asked to participate in the survey. Overall, this group of students provided a relatively homogeneous group that consisted of students who were members and students who were not members of career and technical

student organizations. Of the 712 requests for participation, 401 surveys were returned and usable, yielding a 56% response rate. Forty-four participants were members of a career and technical student organization.

Instrument

The *Revised Self-Leadership Questionnaire* (RSLQ), developed by Houghton and Neck (2002), was the instrument selected to assess students' self-perception of self-leadership skills. The instrument consists of 35 questions that correspond to the three dependent variables: behavior-focused strategies, natural-reward strategies, constructive-thought pattern strategies. Responses were based on a 5-point Likert-type scale with 5=Completely accurate, 4=Mostly accurate, 3=A little accurate, 2=Somewhat accurate, and 1=Not at all accurate. A higher numeric value for a particular statement indicates a stronger self-perception of the skill.

An additional six questions were included to provide demographic information. These questions were reviewed by knowledgeable professionals and adjustments were made for clarity. These questions were included at the beginning of the survey and asked the participants whether they were involved in a career and technical student organization, and if so, which organization, officer status, and how many years involved in the organization. Participants were asked to choose from a list of organizations including career and technical student organizations, church, or community service that had been most beneficial in developing leadership skills. The survey was completed by the participant within 15 minutes.

Procedures

In order to comply fully with the University of Georgia's policy on activity involving human subjects, an application for conducting this study was approved by the University's Institutional Review Board (IRB). All participants in the study were asked to review a cover

letter describing their role in the study. No participant names were included on questionnaires and data was reported only in aggregate.

Questionnaire packets were distributed to North Georgia Technical College students enrolled in Introduction to Computers (SCT 100) and Employability Skills (EMP 100) classes during the 2010 winter quarter. These two courses are taught both online and in a traditional classroom. For traditional, on-campus classes, all students who attended class on the day the survey was distributed were asked to participate. Internet students responded to an on-line version of the same survey. According to Krejcie and Morgan (1970), a population of 750 requires obtaining a sample of at least 250 participants to allow for generalization. The researcher visited each of the classes to distribute the survey in order to achieve maximum response rates.

Data Analysis

The data was analyzed using the Statistical Package for the Social Sciences (SPSS). The first six questions on the survey asked demographic questions that provided a description of the students participating in the survey. The first research question described the overall self-leadership strategies of the participants. The remaining three research questions compared the interaction of membership and gender of self-leadership skills as defined by the following three internal scales of analysis: behavior focused strategies, natural reward strategies, and constructive thought strategies. The focus of the study, self-leadership, was designed using these three subscales (each will serve as a dependant variable) and measured using a 5-point Likert-type scale with 5=Completely accurate, 4=Mostly accurate, 3=A little accurate, 2=Somewhat accurate, and 1=Not at all accurate. The primary independent variable, membership status, is categorical, while the dependent variables were each reported as continuous data. A two-way

ANOVA was performed to determine if interaction exists and if significant differences existed in self-leadership skills based on the main effects.

Summary of Findings

The result of the analysis reflected no interaction between membership and gender among behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. No significant differences were found in the use of self-leadership skills among those students who were members in career and technical student organizations (CTSOs) and non-members. No membership effect may be the result of a small sample size, maturation, fewer life experiences, short-term membership, and the involvement level of students within CTSOs. A significant difference was found in gender for behavior-focused strategies and natural-reward strategies.

The results of this study point out several barriers associated with career and technical student organizations in post-secondary education. There is less participation in CTSOs in post-secondary education than in high school. The low involvement by students in post-secondary education could be one reason why most all research involving CTSOs relates to high school students. Of the 401 responses in this study, only 44 were members of a CTSO. Of the seven possible CTSO organizations, only two, Skills USA and Phi Bata Lamda, have chapters at North Georgia Technical College. Skills USA is an organization affiliated with the traditional trade programs such as welding, machine tool, and electrical construction. Phi Bata Lamba is a student organizations associated with traditional business programs. Health Occupation Students of America (HOSA) disbanded in 2007 due to low student involvement. A larger sample size of membership may have provided different results. It would be helpful to perform this study using multiple technical colleges in Georgia to increase the sample size.

Life responsibilities based on the age of students could be a contributing factor in the lack of involvement in career and technical student organizations. In this study the percentage of students falling into the 25 or under age category is much higher than the overall Technical College System of Georgia percentage of 49%. The overall younger student body at North Georgia Technical College (NGTC), 57.6% were 25 years of age or younger, may be attributed to the fact that NGTC is only one of two technical colleges in Georgia with residence halls. Fifty-nine percent of participants involved in career and technical student organizations were 25 years of age or younger as opposed to 53% of the non-member participants in the same age category. Students over the age of 25 experience time constraints due to additional family and job responsibilities typically associated with non-traditional students. Therefore, non-traditional students who are an essential component of the technical colleges' enrollment have life circumstances that may conflict or take precedence over co-curricular activities such as CTSOs. A potential improvement for development of leadership skills is to integrate training into the course work. The Technical College System of Georgia has taken an integrated approach in similar circumstances such as with basic work ethic skills.

Balancing multiple life responsibilities may explain why those students who are involved in career and technical student organizations are engaged at a low level. Typically, organizations such as Skills USA and Phi Bata Lamba (PBL) meet very few times during a quarter. It is possible that students responding to this study during winter quarter 2010 may have attended only a few meetings during fall quarter. Most of the work in Skills USA takes place in the spring as students prepare for state and national competitions. In addition, advisors should not be dismissed as a possible factor in the level of student involvement. It has been this researcher's

observation that the size of membership within the organizations and the intensity of involvement depend greatly upon the advisor.

There were no significant interactions between membership and gender for behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies. One possible conclusion is the constructs of leadership used as dependent variables for this study. The researcher clearly describes how these self-leadership constructs are included in the activities and missions of career and technical student organizations. As with most leadership development endorsements, the concept is very general in nature and includes a broad range of competencies. Other constructs of leadership may have resulted in significant interactions of the independent variable. The squared multiple correlation coefficients indicate the portion of the variation in the dependent variable accounted for by the independent variable (Huberty, 1994). The R squared values for behavior-focused strategies, natural-reward strategies, constructive-thought process strategies were R Squared = .061, R Squared = .031, and R Squared = .010, respectively. A multiple regression should be conducted to determine if years of involvement, officer statutes, or selection of organization, are predictors of self-leadership.

The student body at North Georgia Technical College is 59.3% female. Large enrollment programs such as nursing and cosmetology are predominately female and make up a large portion of the overall student body. Students participating in the survey mirror that of the college, resulting in a 52.4% female participation rate. However, only 36.4% of the participants who were members of a career and technical student organization (CTSO) were female. This is a direct result of the overall high involvement in Skills USA. Skills USA is the CTSO associated with trade programs such as welding, machine tool, automotive, electrical construction, and

industrial maintenance among others. These programs are traditionally male-dominated. Twenty-six of the 44 participants involved in CTSOs were members of Skills USA.

Forty-six percent of students participating in CTSOs credited the organization with being the most beneficial activity in terms of developing their leadership skills. Thirty-eight percent of students not participating in CTSOs listed church as the factor that most contributed to their leadership development. Work or job was another activity mentioned as a contributing factor in leadership development.

Participants indicated that survey statements relating to various self-leadership tasks were a little accurate in describing their behavior. The overall mean score for all participants on a 5-point Likert scale was 3.701. According to the results, natural-reward strategies best described participants, followed by constructive thought-pattern strategies and behavior-focused strategies.

There were no significant differences in the use of self-leadership strategies as they relate to behavior-focused strategies, natural-reward strategies, or constructive thought-pattern strategies between members of career and technical student organizations and non-members. Based on the results, participants of both groups seemed to indicate that natural-reward strategies were the most accurate when describing their self-leadership skills.

A significant main effect exists for gender. Female students had significantly higher scores on survey questions that addressed behavior-focused strategies and natural-reward strategies than did male participants. Furthermore, female participants who were members of career and technical student organizations had the highest mean scores of any group in each of the three self-leadership categories. Female participants who were members of CTSOs indicated that natural-reward strategies most accurately describe their self-leadership skills. No significant

differences for gender were detected from the questions relating to constructive thought-pattern strategies.

As reflected in the data comparison presented in Chapter 4, the demographic information submitted by the participants of this study represent a good cross section of students participating in career and technical student organizations. The ANOVA performed based on the results of the survey revealed there were no significant differences in any of the three self-leadership categories between students who were members of student organizations and non-members. A review of the means and standard deviations of the survey scores indicated that the activities associated with self-leadership skills are a little accurate in describing these students. The instrument selected to measure self-leadership, *The Revised Self-leadership Questionnaire,* was previously used to measure self-leadership skills of students. For this study, Cronbach's Alpha for the dependent variables behavior-focused strategies, natural-reward strategies, and constructive-thought pattern strategies was .893, .736, and .881 respectively.

Perhaps it was no surprise that one of the findings of this study is how infrequently students practice basic self-leadership skills in their daily lives. Self-leadership skills such as goal setting, self-observation, self-cueing, self-reward, self-punishment, natural rewards, self-talk, visualizing successful performance, and evaluating beliefs and assumptions, provide a means for self-direction and self-motivation. The lack of these skills in students entering the workforce today may be one factor causing them to be ineffective when participating in a shared leadership process where individuals must first lead themselves before they lead others.

Participants in this study rated each item relating to self-leadership activities as how it best described their actions. Self-leadership presented by Manz (1986) represents a distinct set of strategies concentrating on behavior-focused strategies, such as self-observation and goal setting;

natural-reward strategies; and constructive thought-pattern strategies, including self-dialogue, mental imagery, and positive thought patterns. This study found students seldom engage in the activities included in self-leadership. The results indicate a need for technical colleges to focus on closing the gap for these non-technical skills critical to success in the workplace.

Perhaps the most striking finding of this study was that students involved in career and technical student organizations (CTSOs) were no more frequently using self-leadership competences than non-members. This contradicts previous studies of CTSOs that found various leadership skills more prevalent in members than non-members (Alferd & Stone, 2007; Wingenbach & Kahler, 1997; Dormody & Seevers, 1994; Townsend & Carter, 1983; Spicer, 1982). Some technical colleges promote career and technical student organizations as a co-curricular avenue for students to obtain general leadership skills. Of those students participating in this study, less than 50% indicated these organizations had the greatest impact on their general leadership skills. Skills USA provides a leadership inventory and a self-assessment for skills such as setting goals and visualizing positive results. Leadership progression for Skills USA is similar to that of self-leadership literature. The process for growth promoted by Skills USA places the individual first followed by leader, employee, team member, and then citizen.

Technical colleges in Georgia train students for the technical skills needed to be successful in the workplace. Non-technical skills, such as self-leadership, have been identified as essential job skills. Emphasis should be placed upon the non-technical skills needed to be successful in the workplace today. According to Cohen and Brawer (1996), career education usually fails if it is focused only on job skills, "Knowing how to produce something is quite different from all the other requirements for sustaining employment" (p. 243). Career and technical education is driven by employers' demands for higher skills in the workplace.

Employers are placing much more of a premium on workers with broad work and personal competences (Miles, 1994). It is important for technical colleges to determine the importance, usefulness, and feasibility of developing an effective education program reflecting the needs of the workplace.

Recommendations

The following recommendations for practice and further research are made based upon the findings and conclusion of this study.

1. The ability for technical college graduates to participate effectively in the shared leadership process in today's workplace is achieved by first having the ability to be self-leaders. This research found that students do not view themselves as self-leaders. An emphasis should be placed on self-leadership training at technical colleges.

2. Follow-up research is needed to explore different options for delivering self-leadership skills to technical college students, such as integrating these skills into the curriculum.

3. Demographic date from this study included several indicators contributing to the level of involvement to which the students were participating in the organization. Additional analysis using multiple correlation and regression should be performed to determine if any of these factors predict the use of self-leadership skills in students.

4. As was the case with this study, participation of students in career and technical student organizations in colleges is much lower than at the secondary level of education. Only 46 participants were members of a CTSO. A study including

multiple colleges should be conducted to include a larger sample of CTSO

members.

REFERENCES

Alfeld, C., & Stone, J. R., III, (2007). *Looking inside the black box: The added value by career and technical student organizations to students' high school experience.* University of Minnesota, National Research Center for Career and Technical Education.

Anderson, J. S., & Prussia, G. E. (1997). The self-leadership questionnaire: Preliminary assessment of construct validity. *The Journal of Leadership Studies,* 17(8), 119-143.

Andrasik, F., & Heimberg, J. S. (1982). Self-management procedures. In L. W. Frederikson Ed., *Handbook of Organizational Behavior Management* (pp. 219-247). New York: Wiley.

Anfuso, D. (1999). Core values shape W. L. Gore's innovative culture. *Workforce,* 78(3), 48-52.

Astin, H., & Antonio, A. (2000). Building character in college. *About Campus,* 5(5), 3-7.

Badal, A. A. (2000). Leadership education: A study of leadership educators and employers. (Doctoral dissertation, University of Georgia, 2000). *Dissertations Abstracts International,* 61/09, 3435.

Bandura, A. (1977). *Social learning theory.* Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory.* Englewood Cliffs, NJ: Prentice-Hall.

Barlow, M. L. (1967). *History of industrial education in the United States.* Peoria, IL: Chas. A. Bennett Company Inc.

Bass, B. M. (1985). *Leadership and performance beyond expectations.* New York: Free Press.

Bass, B. M. (1990). *Bass & Stogdill's handbook of leadership: Theory, research, and managerial applications*. New York: The Free Press.

Bennett, C. A. (1926). *History of manual and industrial education up to 1870*. Peoria, IL: Chas. A. Bennett Company Inc.

Blake, R. R., & McCanse, A. A. (1991). *Leadership dilemmas: Grid solutions.* Houstion, TX: Gulf.

Blake, R. R., & Mouton, J. S. (1964). *The managerial grid.* Houston, TX: Gulf.

Blanchard, K. H. (1985). *SLII: A situational approach to managing people.* Escondido, CA: Blanchard Training and Development.

Blanchard, K. (1995). Points of power can help self-leadership. *Manage,* 46(3), 12-13.

Blanchard, K., Zigarmi, P., & Zigarmi, D. (1985). *Leadership and the one minute manager: Increasing effectiveness through situational leadership.* New York: William Morrow.

Bligh, M. C., Pearce, C. L., & Kohles, J. C. (2006). The importance of self-and shared leadership in team based knowledge work. *Journal of Managerial Psychology,* 21(4), 296-317.

Bowers, D. G., & Seashore, S. E. (1966). Predicting organizational effectiveness with a four-factor theory of leadership. *Administrative Science Quarterly,* 11(2), 238-263.

Boyd, B. L. (1991). *Analysis of 4-H participation and leadership life skills development in Texas 4-H club members.* Unpublished doctoral dissertation, Texas A&M University, College Station.

Burns, J. M. (1978). *Leadership.* New York: Harper & Row.

Cahill, J., & Brady, K. (1999). Where the students are sweetening the deal. *Techniques,* 74(3), 26-32.

Camp, W. G., Jackson, R. S., Buser, B. R., & Baldwin, E. T. (2000). *Vocational student organizations and student achievement* (MDS-1317). National Center for Research in Vocational Education: Berkeley, Ca.

Carmeli, A., Meitar, R., & Weisberg, J. (2006). Self-Leadership skills and innovative behavior at work. *International Journal of Manpower,* 27(1), 75-90.

Carnevale, A. P., Gainer, L. J., & Meltzer, A. S. (1990). *Workplace basics: The essential skills employers want.* San Francisco: Jossey-Bass.

Carver, C. S. (1979). A cybernetic model of self-attention processes. *Journal of Personality and Social Psychology,* 37, 1251-1281.

Carver, C. S., Scheier, M. F. (1981). *Attention and self-regulation: A control theory approach to human behavior.* New York: Springer-Verlag.

Cautela, J. R. (1969). Behavior therapy and self-control: Techniques and applications. In C. M. Franks Ed, *Behavioral therapy: Appraisal and status* (pp. 323-340). New York: MaGraw-Hill.

Cohen, A. M., & Brawer, F. B. (1996). *The American community college* (3rd ed.). San Francisco: Jossey-Bass.

Connaughton, S. L., Lawrence, F. L., & Ruben, B. D. (2003). Leadership development as a systematic and multidisciplinary enterprise. *Journal of Education for Business,* (September/October), 46-51.

Cox, J. F. (1993). *The effects of superleadership training on leadership behavior, subordinate self-leadership behavior, and subordinate citizenship.* Unpublished doctoral dissertation, University of Maryland, College Park.

Deci, E., & Ryan, R. (1985). The support of autonomy and control of behavior. *Journal of Managerial Psychology,* 53, 1024-1037.

Dewey, J. (1916). *Democracy and education.* New York: The Macmillan Company.

Dormody, T. J., & Seevers, B. S. (1994). FFA participation and youth leadership life skills. *Paper presented at the American vocational association convention.*

Driskell, J. E., Copper, C., & Moran, A. (1994). Does mental practice enhance performance? *Journal of Applied Psychology, 79*, 481-92.

Fiedler, F. E. (1964). A contingency model of leadership effectiveness. In L. Berkowitz Ed., *Advances in experimental social psychology*. (1), 149-190 New York: Academic Press.

Fiedler, F. E. (1967). *A theory of leadership effectiveness*. New York: McGraw-Hill.

Gall, M. D., Gall, J. P., & Borg, W. R. (2003). Educational research: An introduction (7th ed.). Boston: Allyn and Bacon.

Gordon, H. R. D. (1999). *The history and growth of vocational education in America.* Boston: Allyn and Bacon.

Gordon, H. R. D. (2003). *The history and growth of vocational education in America.* (2nd ed.). Long Grove, Ill: Waveland Press.

Gordon, H. R. D. (2008). *The history and growth of vocational education in America.* (3rd ed.). Long Grove, Ill: Waveland Press.

Guzzo, R. A., (1998). Leadership, self-management, and levels of analysis. In F. Dansereau & F. J. Yammarino (Eds.*), Leadership: The multiple-level approaches, classical and new wave* (pp.213-219). Stanford, CT: JAI Press.

Hardy, K., (2007). *Building self-leaders.* Lincoln, NE: iUniverse.

Harris, T., & Sweet, G. (1981). Why should we believe in vocational student organizations. *VocEd, 56*(6), 32-35.

Hersey, P., & Blanchard, K. H. (1969). *Management of organizational behavior: Utilizing human resources*. Englewood Cliffs, NJ: Prentice Hall.

Houghton, J. D., & Neck, C. P. (2002). The revised self-leadership questionnaire: Testing a hierarchical factor structure for self-leadership. *Journal of Managerial Psychology,* 17(8), 672-691.

Houghton, J. D., Neck, C. P., & Manz, C. C. (2003). Self-leadership and superleadership: The heart and art of creating shared leadership in teams. In C. L. Pearce & J. A. Conger (Eds.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 123-140). Thousands Oaks, CA: Sage.

Huberty, C. J. (1994). A note on interpreting an R^2 value. *Journal of Educational Research Association and American Statistical Association.* 19(4), 351-356.

Kanfer, F., & Karoly, P. (Eds), (1982). *The psychology of self management: Abiding issues and tentative directions.* Elmsford, NY: Permagon Press.

Kantor, H. (1986). Work, education, and vocational reform: The ideological origins of vocational education, 1890-1920. *American Journal of Education*, 94(4), 401-426.

Kantor, H., & Lowe, R. (2000). Vocationalism reconsidered. *American Journal of Education,* 109, 125-138.

Keppel, G. (1991). *Design and analysis: A researcher's handbook* (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall.

Kouzes, J. M., & Posner, B. Z. (2002). *Leadership the challenge.* San Francisco: Jossey-Bass.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement,* (30), 607 - 610.

Kuh, G. D. (2003). What we're learning about students engagement from NSSE: Benchmarks for effective educational practices. *Change* 35(2) 24-32.

Leventhal, J. I. (1999). Providing leadership development for all students: An integral part of classroom instruction. *Tech Directions*, 59(1), 222-225.

Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance.* Englewood Cliffs, NJ: Prentice-Hall.

Lomax, R. G. (2001). *Statistical concepts: A second course for education and behavioral sciences* (2nd ed.). Mahwah, NJ: Erlbaum.

Mahoney, M. J., & Arnkoff, D. B. (1978), Cognitive and self-control therapies. In S. L. Garfield & A. E. Borgin (Eds.), *Handbook of psychotherapy and therapy change* (pp. 689-722). New York, NY: Wiley.

Mahoney, M. J., & Thoresen, C. E. (1974). *Self-control: Power to the person.* Monterey, CA: Brooks/Cole.

Manz, C. C., (1983). *The art of self-leadership: Strategies for personal effectiveness in your life and work.* Englewood Cliffs, NJ: Prentice-Hall.

Manz, C. C., (1986). Self-leadership: Toward an expanded theory of self-influence processes in organizations. *Academy of Management Review,* 11(3), 585-600.

Manz, C. C., (1992). Self-leadership: The heart of empowerment. *Journal for Quality and Participation,* (July/August), 80-85.

Manz, C. C., & Neck, C. P. (2004). *Mastering self-leadership: Empowering yourself for personal excellence.* (3rd ed.). Upper Saddle River, NJ: Pearson Prentice-Hall.

Manz, C. C., & Neck, C. P. (2007). *Mastering self-leadership: Empowering yourself for personal excellence.* (4rd ed.). Upper Saddle River, NJ: Pearson Prentice-Hall.

Manz, C. C., & Sims, H. P., Jr. (1980). Self-management as a substitute for leadership: A social learning perspective. *Academy of Management Review,* 5, 361-367.

Manz, C. C., & Sims, H. P., Jr. (1984). Searching for the unleader: Organizational member views on leading self-managed groups. *Human Relations,* 37(5), 409-425.

Manz, C. C., & Sims, H. P., Jr. (1987). Leading workers to lead themselves: The external leadership of self-managing work teams. *Administrative Science Quarterly,* (32), 106-128.

Manz, C. C., & Sims, H. P., Jr. (1991). Superleadership: Beyond the myth of heroic leadership. *Organizational Dynamics,* (19), 18-35.

Manz, C. C., & Sims, H. P., Jr. (1994). *Business without bosses: How self-managing work teams are building high performance companies.* New York: Wiley.

Manz, C. C., & Sims, H. P., Jr. (2001). *New Superleadership: Leading others to lead themselves.* San Francisco: Berrett-Koehler.

Markham, S. E., & Markham, I. S. (2003). Self management and self-leadership reexamined: A levels-of-analysis perspective. In F. Dansereau & F. J. Yammarino (Eds.), *Leadership: The Multi-level approaches*. (pp. 193-210). Samford, CT: JAI Press, Inc.

Markham, S. E., & Markham, I. S., (1995). Self-Management and self-leadership reexamined: A levels-of-analysis perspective. *Leadership Quarterly,* 6(3), 343-359.

McCannon, M., & Bennett, P. (1996). Choosing to participate or not: A study of college students' involvement in student organizations. *College Student Journal*, 30 (3), 312 - 316.

McCrimmon, M. (2005). Thought leadership: A radical departure from traditional, positional leadership. *Management Decision,* 43(7/8), 1064-1070.

McNally, K., & Harvey, M. (2001). Career and technical student organizations: A perfect path to self-determination and successful transition. *Preventing School Failure,* 45(2), 114-119.

Miles, C. (1994). *The mindful worker: Learning to work in the 21st century*. Clearwater, FL: H & H Publishing.

Mobley, M. D., & Barlow, M. L. (1965). Impact of federal legislation and policies upon vocational education. In M. L. Barlow (Ed.), *Vocational education*. Chicago: The National Society For The Study Of Education.

Montana, P. J., & Charnov, B. H. (2000). *Management: Classical management theory organizational structures human resource management work group dynamics, and much more* (3rd ed.). Hauppauge, NY: Barron's.

Nahavandi, A., & Malekzadeh, A. R. (1999). *Organizational behavior: The person-organization fit.* Upper Saddle River, NJ: Prentice Hall.

National Advisory Council on Vocational Education (1972). *Vocational student organizations.* Washington, DC: Office of Education.

Neck, C. P., & Houghton, J. D. (2006). Two decades of self-leadership theory and research: Past developments, present trends, and future possibilities. *Journal of Managerial Psychology*, 21(4), 270-295.

Neck, C. P., & Manz, C. C. (1992). Thought self-leadership: The impact of self-talk and mental imagery on performance. *Journal of Organizational Behavior*, 12, 681-699.

Neck, C. P., & Manz, C. C. (2007). Mastering self-leadership: Empowering yourself for personal excellence (4th ed.). Upper Saddle River: Prentice Hall.

Northouse, P. G. (2004). *Leadership theory and practice* (3rd ed.). Thousand Oaks, CA: Sage.

Pacanowski, M. (1988). Communication in the empowering organization. In J. A. Anderson Ed., *International Communications Association Yearbook II* (pp. 356-379). Beverly Hills, CA: Sage.

Pearce, C. L. (2004). The future of leadership: Combining vertical and shared   leadership to transform knowledge work. *Academy of Management Executive*, 18(1), 47-57.

Pearce, C. L., & Manz, C. C. (2005). The importance of self- and shared leadership in knowledge work. *Organizational Dynamics*, 34(2), 130-140.

Pearce, G. L., & Sims, H. P. (2003). Transactors, transformers and beyond: A multi-method development of a theoretical topology of leadership. *The journal of management development,* 22(4), 273-307.

Perry, M. L., Pearce, C. L., & Sims, H. P., Jr. (1999). Empowered selling teams: How shared leadership can contribute to selling team outcomes. *Journal of Personal Selling & Sales Management,* 19(3), 35-51.

Pescosolido, A. T. (2001). Informal leaders and the development of group efficacy. *Small Group Research,* 32(1), 74-93.

Prosser, C. A. (1939). *Secondary education and life*. Cambridge MA: Harvard University Press.

Reese, S. (2003). Career and technical student organizations: Building our future. *Techniques*, 78(2), 18-23, 50-52.

Rojewski, J. W. (2002). Preparing the workforce of tomorrow: A conceptual framework for career and technical education. *Journal of Vocational Education Research,* 27(1), 7-34.

Rost, J. C. (1991). *Leadership for the twenty-first century*. New York: Praeger.

Salant, P., & Dillman, D. A. (1994). *How to conduct your own survey*. New York: Wiley.

Scott, J. L., & Sarkees-Wircenski, M. (1996). *Overview of vocational and applied technology education.* Homewood, IL: American Technical Publishers, Inc.

Schuh, J. H. (1983). The perceived long-term influence of holding a significant student leadership position. *Journal of College Student Personnel*, 24(1), 28-32.

Spicer, J. P. (1982). *Perceptions of opportunities to develop potential leadership skills by members and nonmembers of five secondary vocational youth organizations.* Unpublished doctoral dissertation, University of Georgia, Athens.

Stogdill, R. M. (1948). Personal factors associated with leadership: A survey of the literature. *Journal of Psychology,* 25, 35-71.

Stogdill, R. M. (1974). *Handbook of leadership: A survey of leadership and research.* New York: Free Press.

Technical College System of Georgia. (2010). *Program Enrollments*. Retrieved January 15, 2010, from http://kms.dtae.org

Tinto, V., & Russo, P. (1994). Coordinated studies programs: Their effect on student involvement at a community college. *Community College Review,* 22(2), 16-26.

Thoresen, C. E., & Mahoney, M. J. (1974). *Behavioral Self-Control.* New York: Holt Rinehart & Winston.

Townsend, C. D., & Carter, R. I. (1983). The relationship of participation in FFA activities and leadership, citizenship, and cooperation. *AATEA Journal*, 24(1), 20 - 25.

Vaughn, P. R. (1998). *Handbook for advisors of vocational student organizations* (4th ed.). American Association for Vocational Instructional Materials.

Websters' new collegiate dictionary. (1981). Springfield, MA: Merriam-Webster. Wheatley, M. J. (1999). *Leadership and the new science* (2nd ed.). San Francisco: Berrett-Koehler.

White, C. (1982). Leadership developed through vocational student organizations. (Doctoral dissertation, The Ohio State University, 1982). *Dissertations Abstracts International.* 43, 1522A.

Wingenbach, G. J., & Kahler, A. A. (1997). Self-perceived youth leadership and life skills of

    Iowa FFA members. *Journal of Agricultural Education, 38*(3), 18-27.

Zirkle, C., & Connors, J. (2003). The contribution of career and technical student organizations

    (CTSO) to the development of assessment of workplace skills and knowledge: A

    literature review. *Workforce Educational Forum, 30*(2), 15-26.

APPENDIX A

THE REVISED SELF-LEADERSHIP QUESTIONNAIRE

THE REVISED SELF-LEADERSHIP QUESTIONNAIRE

INSTRUCTIONS: Please provide the information requested by supplying a short answer or placing an "X" in the boxes. This information will be used for statistical purposes in analyzing data collected.

1. Age (as of last birthday): _____

2. Gender: ❑ Female ❑ Male

3. Are you are a member of a Career Technical Student Organization (CTSO)? ❑ Yes ❑ No

   If yes, I am a member of:

   - ❑ PBL (Phi Beta Lambda)
   - ❑ Skills USA
   - ❑ HOSA (Health Occupations Students of America)

4. Were you an officer in a CTSO? ❑ Yes ❑ No

   If yes, which office/s did you hold? _____

5. How many years have you been involved in a CTSO?

   ❑ 1 year or less ❑ 1 to 2 years ❑ 2 to 3 years ❑ more than 3 years ❑ N/A

6. Participation in which of the following organizations/activities has been most beneficial in developing your leadership skills?

   - ❑ Career Technical Student Organizations (CTSOs)
   - ❑ Church
   - ❑ Community Service/Volunteering
   - ❑ Other, please specify: _____

INSTRUCTIONS: Read each of the following items carefully and place an "X" on the choice that most accurately describes you.

	Not at all Accurate 1	Somewhat Accurate 2	A little Accurate 3	Mostly Accurate 4	Completely Accurate 5
1. I use my imagination to picture myself performing well on important tasks.	❑	❑	❑	❑	❑
2. I establish specific goals for my own performance.	❑	❑	❑	❑	❑
3. Sometimes I find I'm talking to myself (out loud or in my head) to help me deal with difficult problems I face.	❑	❑	❑	❑	❑
4. When I do an assignment especially well, I like to treat myself to some thing or	❑	❑	❑	❑	❑

	Not at all Accurate 1	Somewhat Accurate 2	A little Accurate 3	Mostly Accurate 4	Completely Accurate 5
activity I especially enjoy.					
5. I think about my own beliefs and assumptions whenever I encounter a difficult situation.	❏	❏	❏	❏	❏
6. I tend to get down on myself in my mind when I have performed poorly.	❏	❏	❏	❏	❏
7. I make a point to keep track of how well I'm doing at work (school).	❏	❏	❏	❏	❏
8. I focus my thinking on the pleasant rather than the unpleasant aspects of my job (school) activities.	❏	❏	❏	❏	❏
9. I use written notes to remind myself of what I need to accomplish.	❏	❏	❏	❏	❏
10. I visualize myself successfully performing a task before I do it.	❏	❏	❏	❏	❏
11. I consciously have goals in mind for my work efforts.	❏	❏	❏	❏	❏
12. Sometimes I talk to myself (out loud or in my head) to work through difficult situations.	❏	❏	❏	❏	❏
13. When I do something well, I reward myself with a special event such as a good dinner, movie, or shopping trip, etc.	❏	❏	❏	❏	❏
14. I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with.	❏	❏	❏	❏	❏
15. I tend to be tough on myself in my thinking when I have not done well on a task.	❏	❏	❏	❏	❏
16. I usually am aware of how well I'm doing as I perform an activity.	❏	❏	❏	❏	❏
17. I try to surround myself with objects and people that bring out my desirable behaviors.	❏	❏	❏	❏	❏
18. I use concrete reminders (e.g., notes and lists) to help me focus on things I need to accomplish.	❏	❏	❏	❏	❏
19. Sometimes I picture in my mind a successful performance before I actually do a task.	❏	❏	❏	❏	❏
20. I work toward specific goals I have set for myself.	❏	❏	❏	❏	❏
21. When I'm in difficult situations, I will sometimes talk to myself (out loud or in my head) to help me get through it.	❏	❏	❏	❏	❏
22. When I have successfully completed a task, I often reward myself with something I like.	❏	❏	❏	❏	❏

	Not at all Accurate 1	Somewhat Accurate 2	A little Accurate 3	Mostly Accurate 4	Completely Accurate 5
23. I openly articulate and evaluate my own assumptions when I have a disagreement with someone else.	❏	❏	❏	❏	❏
24. I feel guilt when I perform a task poorly.	❏	❏	❏	❏	❏
25. I pay attention to how well I'm doing my work.	❏	❏	❏	❏	❏
26. When I have a choice, I try to do my work in ways that I enjoy rather than just trying to get it over with.	❏	❏	❏	❏	❏
27. I purposefully visualize myself overcoming the challenges I face.	❏	❏	❏	❏	❏
28. I think about the goals that I intend to achieve in the future.	❏	❏	❏	❏	❏
29. I think about and evaluate the beliefs and assumptions I hold.	❏	❏	❏	❏	❏
30. I sometimes openly express displeasure with myself when I have not done well.	❏	❏	❏	❏	❏
31. I keep track of my progress on projects I'm working on.	❏	❏	❏	❏	❏
32. I seek out activities in my work that I enjoy doing.	❏	❏	❏	❏	❏
33. I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge.	❏	❏	❏	❏	❏
34. I write specific goals for my own performance.	❏	❏	❏	❏	❏
35. I find my own favorite ways to get things done.	❏	❏	❏	❏	❏

APPENDIX B

PERMISSION FOR USE OF THE REVISED SELF-LEADERSHIP QUESTIONNAIRE

From: dr.jeff.houghton@gmail.com on behalf of Jeff Houghton   Sent: Tue 8/19/2008 9:16 AM

To: Christopher Neck

Cc: Mark Ivester

Subject: Re: Permission to use RSLQ

Attachments: 📄 RSLQ-JMP.pdf(717KB) 📄 RSLQ.doc(38KB) 📄 sl-refs-0508.doc(57KB)

                                                                View As Web Page

Hi Mark!

It's exciting to hear that your research relates to self-leadership. Examining the extent to which
self-leadership can help graduates entering the workforce sounds like an important and
interesting topic. You are welcome to use the RSLQ for your research . Chris and I ask only
that you cite our work appropriately and share your results, especially scale reliability data. I
have attached a .pdf file containing a copy of the JMP article (Houghton & Neck, 2002) in which
we published the RSLQ. The entire scale is included in an appendix, but I have also attached an
MS Word document containing the scale for your convenience. As you will see from the paper,
you can calculate a score for each of the SL strategy dimensions (behavior focused, natural
reward and constructive thought) or an overall score for self-leadership. There's no magic
scoring formula...you can just use the items the best way they fit within your research design. I
usually just total all of the items when I want to get an overall score for self-leadership. But it's a
large number...somewhere in the 70 to 140 range. You can also divide by the total number of
items to convert the overall SL score back to a 5-point scale.

One final piece of advice…you might want to consider excluding the self-punishment items from
the scale (items 6, 15, 24 & 30). Although the concept of self-punishment in moderation was
included in the original conceptualization of self-leadership, it can often be detrimental to one's
self-leadership, especially when used excessively. In fact, Manz & Sims (2001) have
reconceptualized this dimension as "self-correcting feedback." Anyhow, I usually suggest that
people either omit these items or reverse scale them.

I have also attached a file containing updated list of self-leadership references that may be
helpful to you.

Please let me know if you have any additional questions about self-leadership or the RSLQ.
Good luck with your research and please keep me informed of your progress!

Jeff Houghton