Executive level decision styles and learning strategies of volunteer leaders  
by Robert James Moretti  

A thesis submitted in partial fulfillment of the requirements for the degree of Doctor of Education  
Montana State University  
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Abstract:  
This study was concerned with understanding the learning strategies and the decision styles of volunteer presidents or chairpersons of nonprofit organizations. The study also looked at the relationship between decision styles, learning strategies, and participants’ gender, age, education, and experience.  

Seventy volunteers were given the Decision Style Inventory (DSI), the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS), and a demographics questionnaire. All variables were correlated to determine the degree of relationship among them. Additionally, two groups were formed based on combined analytical and conceptual scores from the Decision Style Inventory. A score of 170 or higher placed the participant in the typical leaders group while those scoring below 170 were placed in the not typical leaders group. A discriminant analysis was conducted to determine the relationship certain variables had on each group.  

According to combined analytical and conceptual scores on the Decision Style Inventory, 25 participants (36%) were classified as typical leaders while 45 (64%) were classified as not typical leaders.  

The correlation analysis indicated that there were no significant relationships between any of the single variables used in this study. The discriminant analysis indicated that a participant’s SKILLS scores, specifically the external aids score from the Memory category, the adjusting score from the Metacognition category, and the assumptions score from the Critical Thinking category, could all be combined to predict group membership with 73% accuracy. Additionally, more participants utilized the Behavioral decision style (30%) and the Resource Management learning strategy (40%) than any of the other possibilities.  

Recommendations were made for nonprofit organizations, communities, and volunteers. Recommendations related to enhancing the selection process for leaders, volunteer leader’s learning strategies, improving communications, internships, mentoring, training, networking, civic involvement, adequate legislation, and empowerment.
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AND LEARNING STRATEGIES OF
VOLUNTEER LEADERS

by

Robert James Moretti

A thesis submitted in partial fulfillment
of the requirements for the degree
of
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November 1994
APPROVAL

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Robert James Moretti

This thesis has been read by each member of the thesis committee and has been found to be satisfactory regarding content, English usage, format, citations, bibliographic style, and consistency and is ready for submission to the College of Graduate Studies.

11/28/94

Date

Chairperson, Graduate Committee

11/28/94

Date

Head, Major Department

Approved for the College of Graduate Studies

12/11/94

Date

Graduate Dean
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ABSTRACT

This study was concerned with understanding the learning strategies and the decision styles of volunteer presidents or chairpersons of nonprofit organizations. The study also looked at the relationship between decision styles, learning strategies, and participants' gender, age, education, and experience.

Seventy volunteers were given the Decision Style Inventory (DSI), the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS), and a demographics questionnaire. All variables were correlated to determine the degree of relationship among them. Additionally, two groups were formed based on combined analytical and conceptual scores from the Decision Style Inventory. A score of 170 or higher placed the participant in the typical leaders group while those scoring below 170 were placed in the not typical leaders group. A discriminant analysis was conducted to determine the relationship certain variables had on each group.

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Recommendations were made for nonprofit organizations, communities, and volunteers. Recommendations related to enhancing the selection process for leaders, volunteer leader's learning strategies, improving communications, internships, mentoring, training, networking, civic involvement, adequate legislation, and empowerment.
CHAPTER 1

INTRODUCTION

Background of the Problem

This study was concerned with understanding the learning strategies and the decision styles of volunteer leaders. The leaders this study focused on were the presidents or chairpersons of nonprofit organizations large enough to have operating budgets exceeding $25,000 annually.

Adult leaders are constantly faced with choices and decisions both at work and in their everyday living. How individuals react to these situations depends on such things as their experiences, training, habits, and the environment in which the situation occurs. According to Rowe and Mason (1987), "most of our lives, we do things that come naturally without reflecting on them very much. Sometimes these habits work for us, and sometimes they do not" (p. 8). They further reported that the way in which individuals deal with these decision situations reflects their decision style. Likewise, when people need to learn about a task, they employ certain learning strategies. Fellenz (1993) reported that "learning strategies are the techniques or skills that an individual elects to use in order to accomplish a
learning task" (p. 1). Fellenz also stated that frequently little thought is given to the selection of these strategies.

The adult volunteer leaders that give little thought to decision styles and learning strategies may take actions that affect individuals other than themselves. Moreover, an organization depends upon its executive leadership for survival and success in achieving its goals and mission. O'Connell (1985), in discussing the legal responsibilities of an organization's board of directors, stated,

> Whether it is a service or a cause-oriented membership association, the board has the principal responsibility for fulfillment of the organization's mission and the legal accountability for its operations. (p. 20)

How well these executive leaders learn about pending tasks and how effectively they make decisions may be the difference between an organization's success or failure. O'Connell (1985), talking about the organization president, further stated,

> You are the person morally responsible for your public agency. No matter how inadequate you may feel on the job, or even if you have people to whom you can delegate, you are the person who is accountable to your fellow citizens for the expenditure of their dollars contributed to help your agency pursue its service to society. (p. 33)

Our society is made up of three sectors that all function to serve the needs of people. These sectors include government, business, and the nonprofit sectors. John Gardner (O'Connell, 1985) recognized this multiplicity of sectors when he wrote,

> Americans have always believed in pluralism -- the idea that a free nation should be hospitable to many sources of initiative, many kinds of institutions, many conflicting beliefs and many competing
economic units. Our pluralism allows individuals and groups to pursue goals that they themselves formulate, and out of that pluralism has come virtually all of our creativity. (p. 14)

The nonprofit sector has been variously labelled the voluntary sector, the third sector, or the independent sector. It is difficult to find absolute definitions for the nonprofit sector or any of its other acceptable titles because it determines a special federal tax status by necessity that needs to be broad in definition. Nonetheless, this researcher provided the following definition for the nonprofit sector or its acceptable labels of voluntary, third, or independent sectors.

Nonprofit sector organizations are federal income tax exempt organizations that are nongovernment and nonbusiness and which operate exclusively for one or more of these broad purposes: charitable, religious, scientific, literary, or educational. The importance of the nonprofit sector is emphasized by O'Connell (1985) and Boggs (1991). O'Connell wrote,

Many people don't understand how much volunteering means to our society, or even have a grasp of the dimensions of it, because this is an aspect of our national life that we take for granted and have never really felt a need to study. Now that there seems to be a growing realization that citizen participation is a vital part of our national character, there is a greater interest in having a clearer grasp of the facts, trends, and impact. (pp. 12-13)

Boggs, like O'Connell, recognized the importance of the nonprofit sector when he stated,

It bears repeating that all the important choices facing communities require politics and the skills and knowledge that go into defining the common good. Only some of these choices involve government. (p. 19)
Volunteerism is an essential and important ingredient of a successful society and a duty that needs to be expected from its citizens. Boggs (1991) states, "Citizenship is an adult responsibility and requires lifelong learning to be adequately fulfilled" (p. 67). In turn, citizens have a requirement to be volunteers or else they should expect the unpleasant result of a dysfunctional community. Describing the responsibilities of citizenship, Boggs wrote, "At its core, responsible citizenship involves thoughtful evaluation of and responsible involvement in public issues" (p. 83).

Being an executive responsible for leading a volunteer organization is not an easy task. These leaders are not paid and usually have at their disposal limited budgets for conducting the operation of these organizations. Volunteer leaders typically already have a full-time career and cannot devote full attention or time to their volunteer job.

Volunteer organizations need to select the right executive to serve as their president or chairperson in order to enhance the chance of success at meeting organizational goals. O'Connell (1985) stated,

One mistake organizations make is to automatically recruit as leader the expert on the subject without regard to his or her organizing skills. We eagerly recruit people to do organizing jobs for which they may be utterly incapable. (p. 36)

The "fit" between a person's style and a job is sometimes referred to as "alignment," and numerous authors maintain that it influences the success or failure of an organization. Rowe and Mason (1987) stated that style is
the predisposition of a person to think and to act in a specific way in a given situation -- a preferred mode of thinking, often to the exclusion of others. The manner of thinking or focusing determines one's inherent ability to manage effectively. (p. 18)

Continuing with their discussion of "fit," Rowe and Mason (1987) defined alignment as,

The condition in which one's style is effectively matched with the demands of the environment in which one must act. Proper alignment leads to positive feedback, increased self-confidence, higher motivation, and deeper commitment, all resulting in better performance and satisfaction. (p. 11)

Many individuals are not properly suited for the positions they hold in organizations, and others have much more potential than their careers may demand. In explaining the need to fit an executive's style to the demands of an organization, Levinson (1981) observed, "Fully 80 percent of all American workers in every job category may have jobs for which they are unsuited" (p. 296). Echoing a similar concern, O'Toole (1972) observed, "A significant number of American workers are dissatisfied with the quality of their working lives" (p. xv).

Civic education and involvement are important to the success and quality of volunteer organizations and our democratic society. Boggs (1991) wrote, "Participation through discussion as a prelude to action is at the heart of both adult education and democracy" (p. 12). Boggs (1991), Barber (1984), and Matthews (1989) espouse the importance of democracy, adult education, and civic involvement. In fact, Boggs (1991) described adult civic education as the purposeful and systematic effort to develop in adults the skills and dispositions to function effectively as citizens in their
communities as well as in the larger world. Increasing participation in the democratic process and using such participation as a catalyst for learning are desirable outcomes of adult civic education. (p. 5)

Barber (1984, p. 158) advocated "strong democracy" as an ideal in which civic education throughout the lifespan, citizen participation, and public deliberation are the essential ingredients. For citizens, "participation has as its primary function the education of judgement." Furthermore, democratic communities, according to Matthews (1989), require a civic infrastructure, a host of nongovernmental associations, that takes on some of the responsibility for the management of society as a whole. These associations, in Matthews' words,

provide public environments in which people are able to learn a new self-respect, a deeper and more assertive group identity, public skills, the values of cooperation, and civic virtue. (p. 82)

Actions taken by volunteer organizations usually are determined by the executive leadership of these groups. These decisions are not only important to the success or failure of the organization but also to the communities in which they serve. The executive leaders of these organizations should be properly suited for this task. Austere funding and a shortage of skilled volunteers make effective management difficult, if not virtually impossible.

Are executive level managers available or willing to devote valuable time to the leadership of volunteer organizations, especially when these positions are traditionally non-paid?
Decision styles are the personal, characteristic ways all individuals choose to make decisions. According to Rowe and Mason (1987), another way to look at decision style is as "the way that we perceive and comprehend stimuli and how we choose to respond" (p. 18). These styles are related to an individual's personality and background, and they contribute to effective performance. According to Rowe and Mason (1987),

There are two key aspects that describe how our mind works: its cognitive complexity and its value orientation. A person may have either a low tolerance for ambiguity (that is, a high need for structure) or a high tolerance for ambiguity. Values may be oriented either to human and social concerns or to task and technical concerns. Combining these two dimensions yields four basic styles: the directive, analytical, conceptual and behavioral. (pp. 3-4)

"Learning strategies are the skills and techniques that an individual elects to use in order to accomplish a real-life learning task" (Fellenz, 1993, p. 1). Learning can depend on experiences, training, habits, and other things which may affect the success of the learning activity. These strategies include the categories of metacognition, metamotivation, memory, critical thinking, and resource management.

If decision style and learning strategies can both depend on the background, training, habits, and experiences of the individual, then how the individual learns during these learning or decision experiences or situations provides a connection between one's decision style and learning strategy. Individuals develop their
decision styles by learning from past situations that are either successes or failures. How individuals learn during these situations, or, in other words, the learning strategies they employ during these situations, can determine whether the event is a success or failure. Learning is the key that determines what decision styles and learning strategies an individual will use. An individual’s decision style and learning strategy are based on their exposure to knowledge, education, and interpersonal interaction. The way an individual perceives and comprehends stimuli then influences the techniques used to learn for the given situation.

The presidents or chairpersons of volunteer organizations are in positions of authority and their decisions have a direct impact on society. Important decisions are being made by these executive-level leaders that affect the well being and life styles of communities.

While both decision styles and learning strategies have been investigated separately, the decision styles and learning strategies of executive volunteer leaders and the relationship between their decision styles and learning strategies has not been studied. The question investigated in this study was: What is the relationship between the strategies used to learn by presidents or chairpersons of volunteer organizations and the styles they use to make decisions?
The purpose of this study was to determine what learning strategies and decision styles are used by presidents or chairpersons of volunteer organizations. This study determined the relationship between these learning strategies and decision styles by utilizing the statistical methods of correlation and discriminant analysis. This study also investigated whether demographic information such as age, gender, education, and experience have an effect on decision styles or learning strategies. The focus was to understand what learning strategies and decision styles were used by volunteer organizations' presidents or chairpersons.

Research Questions

This study was guided by the following research questions:

1. What learning strategies are utilized by presidents or chairpersons of volunteer organizations?

2. What decision styles are utilized by presidents or chairpersons of volunteer organizations?

3. Is there a relationship between the learning strategies and the decision styles utilized by presidents or chairpersons of volunteer organizations?

4. Do presidents or chairpersons of volunteer organizations use different learning strategies and decision styles based on their age, education, experience, or gender?
5. Are presidents or chairpersons of volunteer organizations typical leaders according to their Decision Style Inventory scores? Typical leaders are defined as those individuals who have a combined analytical and conceptual score of 170 or higher on the Decision Style Inventory.

**Significance of the Study**

The results of this study will enable volunteer organizations to determine what decision styles and learning strategies have been utilized by the top executive level (presidents or chairpersons) of volunteer organizations. An understanding of their decision styles and their learning strategies and whether there is a relationship between the two may help to improve success in future decision making and learning situations. This understanding could also help volunteer organizations determine the type of training that would be preferred by their executive leadership. Ultimately this information could assist in the selection of future volunteer leaders and in providing the types of learning techniques that are best suited to optimize effective volunteer leadership.

This study included both current and past chairpersons or presidents of nonprofit organizations. Nonprofit organizations typically are organized for charitable, religious, scientific, literary, or educational purposes. Organizations with such purposes are pertinent to the proper functioning of citizenship in a democracy and are included in this study. The American Red Cross (1990), for
example, defines volunteers as individuals who reach out beyond the confines of their paid employment and of their normal responsibilities to contribute time and service to a not-for-profit cause in the belief that their activity is beneficial to others as well as satisfying to themselves (p. 4).

**Definition of Terms**

**Critical Thinking:** Disciplined, self-directed thinking which exemplifies the perfection of thinking appropriate to a particular mode or domain of thought (Paul, 1993, p. 33).

**Decision Style:** The way that one visualizes, thinks, and reacts to choices and situations when making a decision. A characteristic way of making decisions. The ways in which individuals deal with these decision situations reflect their decision style (Rowe & Mason, 1987, p. 2).

**Leadership Training:** Training that involves the directing and guiding of an organization.

**Learning Strategies:** The techniques or skills that an individual elects to use in order to accomplish a learning task (Fellenz, 1993, p. 1).

**Memory:** The capacity of humans to retain information, to recall it when needed, and recognize its familiarity when they later see it or hear it again (Wingfield & Byrnes, 1981, p. 4).

**Metacognition:** The knowledge and control one has over one’s own thinking and learning (Brown, 1982).
**Metamotivation:** The motivation of the individual to learn and to distinguish it from factors relating to reasons for participating in educational programs (Fellenz, 1993, p. 10).

**Organizational Training:** Training that involves learning about the purpose and mission of the organization.

**Resource Management:** The process of identification, evaluation, and use of resources relevant to the learning task.

**Skunkworks:** A highly innovative, fast moving, and slightly eccentric activity operating at the edges of the corporate world (Peters & Austin, 1985, pp. xii, xiii).

**Synergy:** The state in which the whole is more than the sum of the parts (Covey, 1991, p. 37).

**Volunteer Chairperson/President:** The person morally responsible for an organization or agency. The person who is accountable for the expenditure of the organization’s dollars in the pursuit of its mission or service.

**Volunteers:** Individuals who reach out beyond the confines of their paid employment and of their normal responsibilities to contribute time and service to a not-for-profit cause in the belief that their activity is beneficial to others as well as satisfying to themselves (American Red Cross, 1990, p. 4).
Delimitations of the Study

Organizational size is important as a determinate of the difficulty of the job of being chairperson or president of the organization. This study included those tax exempt organizations that have a United States Internal Revenue Service tax exemption number and are required to file an annual tax report. This requirement excludes organizations with annual revenues less than $25,000. This study was limited to the City of Great Falls and the County of Cascade, both located in the State of Montana.

Limitations of the Study

Gay (1987) described a limitation as

some aspect of the study that the researcher knows may negatively affect the results or generalizability of the results but over which he or she probably has no control. (p. 108)

This researcher was unable to determine the actual number of nonprofit organizations with operating budgets of $25,000 or more that are located in Great Falls and Cascade County. Neither the U.S. Internal Revenue Service nor the Montana Office of the Secretary of State are permitted to release data regarding the dollar amount of the operating budgets for nonprofit organizations. These organizations are required to be registered within the state that they operate and with the Internal Revenue Service to be legally identified as nonprofit organizations. Researcher knowledge, the Great Falls Area Chamber of
Commerce, the Big Sky Chapter of the American Red Cross, the United Way of Cascade County, residents of the study area, and volunteer study participants were all helpful in identifying the proper organizations and subjects for this study.

Rowe and Mason (1987) developed their description of a typical leader by utilizing presidents and chairpersons from throughout the country. This description was applied to the volunteer leaders utilized in this study. The subjects were assumed to have answered all three instruments (the Decision Style Inventory, the Self-Knowledge Inventory of Lifelong Learning Strategies, and the questionnaire) honestly and accurately.
CHAPTER 2

REVIEW OF THE LITERATURE

The review of the literature related to four major areas that were essential to understanding the problem and subject matter of this study. These four areas included volunteerism, leadership, decision styles, and learning strategies.

Volunteerism

This review section aimed at understanding the importance of volunteerism. The United States is the only country in the world where giving and volunteering are pervasive characteristics of the total society (O'Connell, 1985, p. 5). O'Connell further added that the Pulitzer Prize historian Merle Curti said, "Emphasis on volunteer initiative . . . has helped give America her national character."

O'Connell's close friend, former Health, Education and Welfare Secretary John W. Gardner wrote, "Virtually every significant social idea in this country has been nurtured in the nonprofit sector" (Gardner, 1983, p. xiv).

Although the voluntary sector also exists outside the United States, writers as early as De Tocqueville in 1835, following a visit to the United States (De Tocqueville, 1835/1969), and as recent as Gardner (1983) agreed that its diversity and strength are uniquely American in its extraordinary richness and
variety. It encompasses a remarkable array of American institutions -- libraries, museums, religious organizations, schools and colleges, organizations concerned with health and welfare, citizen action groups, neighborhood organizations, and countless other groups such as Alcoholics Anonymous, the Urban League, the 4H Clubs, the Boy Scouts, the Girl Scouts, the Salvation Army, the United Way, and the Red Cross.

Max Lerner (1969), a noted educator, economist, and writer, stated that Americans join associations for a number of motives: to "get ahead," to "meet people" and "make contacts," to "get something done," to "learn something," and to "fill their lives."

The importance of the voluntary sector cannot be underestimated. This nation was founded by men of voluntary spirit who organized and lived in communities before any government was formed. According to the Great Falls Tribune, December 5, 1993 edition, Americans gave an astonishing $102 billion to nonprofit organizations in 1992. O'Connell (1983) noted that more than half of the people in America serve as regular volunteers; that ninety percent of all giving in this country comes from individuals; and that about half of the donations come from families with incomes under $20,000. John D. Rockefeller (1907) recognized the resources donated by the poor when he said, "Probably the most generous people in the world are the very poor, who assume each other's burdens in the crises which come so often to the hard pressed" (p. 112).
Merle Curti (1958) recalled the role of philanthropy in American education when he wrote:

When a group of progressive-minded merchants made possible the introduction of scientific study in our colleges in the mid-nineteenth century, a new era in our educational history was under way. The names of Lawrence, Sheffield, the younger Agassiz, Bussey, Peabody, Lick, Ryerson, Scripps and countless others made possible some of the most notable scientific work in our universities. Private initiative also got under way much needed vocational training, as the names of Rensselaer, Cooper, Pratt, Drexel and Carnegie, to name only a few, suggest. And philanthropists also made possible the establishment of the first professional schools of mines, business and journalism. (p. 171)

In adult education, too, private philanthropy laid the groundwork in helping people who wanted to know. The contributions of the Carnegie Corporation and of other foundations to adult education have both stimulated public action, improved the quality of that which existed and added new dimensions to the movement. (p. 173)

Despite the resources devoted to the voluntary sector it faces serious problems. Problems such as stringent tax regulations, greater expectations for service, escalated operating cost, poor leadership and management, and inflation have all resulted in serious financial trouble for many nonprofit institutions. Gardner (1983) stated,

If private nonprofit institutions are to survive and retain their vitality, they must manage themselves well and serve community needs honestly and responsibly. Unfortunately, some nonprofit institutions are so poorly managed that they waste the money entrusted to them . . . . (p. xi)

In short, the human and institutional failures that afflict government and business are also present in the volunteer sector. This review of volunteerism defined the dimensions of the organizations that face volunteer leaders.
Leadership

There are numerous authors who have written about leadership. The emphasis in this area of review was on effective methods that leaders utilize.

Discussions of leadership today evoke the principles of excellence and total quality. These two principles regarding effective leadership were reviewed concurrently in order to describe methods common to both areas. According to Covey (1991), the movement towards total quality as the operating model for businesses large and small, manufacturing and service industries alike, is increasing at an exponential rate because quality is widely seen as the key to American economic survival and success.

The keys to success according to Peters and Austin (1985), Deming (1992), Iacocca (1984), and Covey (1991) are found in communication, networking, and empowerment. Deming feels that the greatest waste in America is the failure to use the abilities of people. To be effective, leadership needs to empower people and their organizations to achieve their worthwhile objectives, in essence to become more effective at whatever they do.

Deming (1992) is credited with turning around the Japanese economy following the devastation of World War II. His premise rests upon the ability to clearly understand and accurately interpret the interaction of people with each other and with the systems in which they work and grow. Effective communication among people, management, and labor, between the company and its suppliers,
and between the customers and the organization is essential to total quality. Deming’s (1992) methods are summarized in the following 14 points:

1. Create consistency of purpose.
2. Adopt the new philosophy.
3. Cease dependence on inspection.
4. Stop awarding business based on price alone.
5. Constantly and forever improve the system of production and service.
6. Institute job training.
7. Teach and institute leadership.
8. Drive out fear.
10. Eliminate slogans, exhortations and targets.
11. Eliminate quotas and goals.
12. Remove people barriers.
13. Encourage education and self improvement.

Deming’s 14 points emphasized communication at all levels. Three of Deming’s 14 points emphasize training (#6), teaching (#7), and education (#13), all of which involve learning. His total quality model points out that leadership’s job is to lead and that education plays an important role.

Steven Covey (1991) clearly recognized that the most important resource of any organization is its people. In organizations, people usually perform one of
three essential roles: producer, manager, or leader. Each role is vital to the success of the organization. As an example Covey (1991) wrote,

If there is no producer, great ideas and high resolves are not carried out. The work simply doesn’t get done. Where there is no manager, there is role conflict and ambiguity; everyone attempts to be a producer, working independently, with few established systems or procedures. And if there is no leader, there is lack of vision and direction. People begin to lose sight of their mission. (p. 244)

Covey, like Deming, emphasizes the responsibilities of the individual to be an effective leader. Covey (1991, pp. 40-47) cited seven habits of effective leadership as follows:

Habit 1. Be Proactive - the Principle of Self-Awareness, Personal Vision, and Responsibility

Habit 2. Begin with the End in Mind - the Principle of Leadership and Mission

Habit 3. Put First Things First - the Principle of Managing Time and Priorities Around Roles and Goals

Habit 4. Think Win-Win - the Principle of Seeking Mutual Benefit

Habit 5. Seek First to Understand Before Being Understood - the Principle of Empathic Communication

Habit 6. Synergize - the Principle of Creative Cooperation

Habit 7. Sharpen the Saw - the Principle of Continuous Improvement

Covey’s seven habits serve as both quality initiatives and excellence guidelines. Covey’s seven habits emphasize learning (#3, #5, and #7) and education (#4).
These habits provide personal and interpersonal effectiveness models for what Covey terms principle-centered leadership. Discussing principle-centered leadership Covey (1991) stated,

Principles apply at all time in all places. They surface in the form of values, ideas, norms, and teachings that uplift, ennoble, fulfill, empower, and inspire people. (p. 19)

Lee Iacocca, the chairman who saved Chrysler, used a slightly different approach when it came to leading or managing people, but one that still involved communicating and empowering. Iacocca practiced a quarterly review system that looked at the past accomplishments and upcoming goals of his personnel. Iacocca (1986) stated this system works for several reasons:

First, it allows a man to be his own boss and to set his own goals. Second, it makes him more productive and gets him motivated on his own. Third, it helps new ideas bubble to the top. (pp. 50-51)

Iacocca believed that this dialogue between people usually improves their working relationship.

Total quality starts at the top. The leadership of the organization must be intimately involved in the process to see that the quality paradigm is translated into the minds and hearts of everyone in the organization. One saying heard by this study’s researcher at a symposium concerning total quality went as follows: "If you don’t have it personally, you won’t get it organizationally."

The idea of networking and communicating repeats itself time and again when people talk about management and leadership. John Naisbitt (1984) wrote:
We are substituting the network model of organizations and communication, which has its roots in the natural, egalitarian, and spontaneous formation of groups among like-minded people. Networks restructure the power and communication flow within an organization from vertical to horizontal. One network form, the quality control circle, will help revitalize worker participation and productivity in American business. (p. 281)

The concepts of superior customer service and constant innovation are built on a bedrock of listening, trust, and respect for the dignity and the creative potential of each person in the organization. The Peter's model of excellence closely parallels these quality concepts. His model of excellence depends on an organization's leaders taking care of customers, constantly innovating, and turning-on people. Peters and Austin (1985) understood the movement toward developing a new managing approach for America when they labelled it "in its skunkwork phase." Before this change American business was so tied up in techniques, devices, and programs that it forgot about people.

Peters and Austin (1985) reported, "Two of the most important basics of managerial success are pride in one's organization and enthusiasm for its works" (p. xix). Peters is credited with the management by wandering around (MBWA) technique which he claims keeps leaders in touch and is no more than common sense.

Similar to Naisbett's views, Peters and Austin also emphasized the need to network. The idea of networking was expressed by Peters and Austin (1985) when they stated,
Organizations need to be "no excuses" environments, where radical
decentralization frees people to make anything happen, where
training is provided, where extraordinary results are then routinely
expected because the barriers to them have been cleared away.
There is a certain militancy in the way values are protected and
people are empowered to take possession of their achievements.
(p. xix)

Peters and Austin (1985) described leadership as vision, cheerleading,
enthusiasms, love, trust, verve, passion, obsession, consistency, the use of symbols,
paying attention as illustrated by the content of one's calendar, out-and-out drama
(and the management thereof), creating heroes at all levels, coaching, effectively
wandering around, and numerous other things (p. 6).

When organizations and their employees engage in the process of clearly
identifying and communicating to each other their respective principles, values,
needs, mission, and vision, to the extent of overlap between the company and its
employees in these areas, the opportunity for commitment, creativity, innovation,
empowerment, and quality becomes activated (Covey, 1991, p. 270).

In summary, the methods required for effective leadership include
communication, networking, and empowerment. An effective leader understands
the importance of communications, networking, and empowerment. The number
one resource available to organizations is people. This leader builds a
complementary team based on mutual respect, with more concern on direction and
results than with methods, systems, and procedures. This leader cares not only
about the quality of the products and services, but also about the quality of
people's lives and their relationships. These effective leadership methods and the
earlier review of volunteerism provided the backdrop against which to review
decision styles and learning strategies.

Decision Styles

This review of decision styles aimed at defining, understanding, and
interpreting individual styles. An instrument used to measure decision style was
also explained to help facilitate differences among individual volunteer leaders.

Over the years, a number of psychological tests have been developed to
assess individual personality traits that may contribute to effective performance.

Carl Jung (1971), discussing his theory of psychological types stated,

> These four functional types correspond to the obvious means by
> which consciousness obtains its orientation to experience. Sensation
> (i.e., sense perception) tells you something exists; Thinking tells you
> what it is; Feeling tells you whether it is agreeable or not; and
> Intuition tells you from whence it comes and where it is going. (p. 61)

Every volunteer leader has a characteristic way of making decisions -- a
decision style. Rowe and Mason (1987) reported that the four basic decision styles
are directive, analytical, conceptual, and behavioral. Rowe and Mason (1987),
comparing their decision style theory to Jung's theory of psychological types,

The styles that we have described as directive, analytical, behavioral,
and conceptual can also be classified according to Jung's typology as
ST (sensing/thinking), NT (intuiting/thinking), SF (sensing/feeling),
and NF (intuiting/feeling), respectively. The association between
decision style and Jung's theory has been established empirically by
means of correlations with the Myers-Briggs Type Indicator. (p. 141)
The effectiveness of a leader has been tied to the style that is utilized. According to Rowe and Mason (1987),

To be successful, an executive must know his or her style and be able to focus on achieving objectives in a frequently changing environment. In short, effective management requires matching the capabilities of individuals to the requirements of particular jobs. Many individuals hold positions or work in occupations that do not suit their personal style. (p. xi)

The Decision Style Inventory was developed by Rowe in 1981, and it helps as one of a number of ways an executive can identify what is required to achieve success (Rowe & Mason, 1987, p. 5). Decision style reflects the way that one visualizes and thinks about situations. It has to do with mental predisposition concerning personal objectives, what situations one avoids, what kinds of jobs one enjoys, what things one dislikes, how one communicates, and how one approaches problems and makes decisions. Patterns among these predispositions serve to describe one’s style.

Rowe and Mason (1987) explained that the language of decision style provides concepts that can be used to describe one’s mental predispositions to process information and to visualize and think about situations. When a problem confronts a person it is called a decision situation. Each decision situation has two key dimensions -- its structure and its elements. The structure may be either loose or complex. The elements are concern for people or focus on objects. Combining these two dimensions creates four basic categories of decision situations that
confront managers. The ways in which managers deal with these decision situations reflect their style.

Two key aspects that describe how the mind works are its cognitive complexity and its value orientation. A person may have either a low tolerance for ambiguity (that is, a high need for structure) or a high tolerance for ambiguity. Values may be oriented either to human and social concerns or to task and technical concerns. Combining the components of cognitive complexity and value orientation yields the four basic decision styles of directive, analytical, conceptual, and behavioral. These four basic decision styles are further described below.

Directive

The directive style, which is associated with Jung's typology of ST (sensing/thinking), has low tolerance for ambiguity and is oriented to task and technical concerns. A person with this style implements operational objectives in a systematic and efficient way. Rowe and Mason (1987) described some of the traits people with the directive style display as follows:

The directive style resembles the style of the empiricist school. Facts for the directive style are reality, and there is a commensurate distaste for ideology. The person with the directive style believes that it is through the accumulation of and dealing with facts that true knowledge is acquired. Facts also serve as a kind of security blanket for the person with the directive style, assuaging the intense need for mastery and control. (pp. 32-33)
Analytical

The analytical style, which is associated with Jung’s typology of NT (intuiting/thinking), has a high tolerance for ambiguity and is oriented to task and technical concerns. Performance is achieved by means of analysis, planning, and forecasting. The analytical and the directive styles are both logical in their approach. Rowe and Mason (1987) described some of the traits people with the analytical style display as follows:

The analytical thinker generally tries to gain the broadest possible perspective of a problem, seeks to identify previously "taken for granted" underlying assumptions, exposes these assumptions to examination, and then argues for a new set of assumptions. This style tends to use a rather formal decision-making process, in which many possible alternatives are envisioned, each is carefully examined, and an evaluation is conducted to determine the optimal policy to follow. (p. 23)

Conceptual

The conceptual style, which is associated with Jung’s typology of NF (intuiting/feeling), has a high tolerance for ambiguity (considerable complexity) and is oriented to people and social concerns. Performance is achieved by exploring new options, forming new strategies, being creative, and taking risks. Rowe and Mason (1987) described some of the traits people with the conceptual style display as follows:

People who have a conceptual style are broad "system" thinkers who have expansive time horizons. They are able to deal with the past, the present, and the future simultaneously. Psychologically they have the longest "time span of discretion." They also generally have the greatest geographical reach and comprehension. People who
have conceptual style tend to value quality and prefer openness, curiosity, and a sharing of values among their colleagues. Characterized by a high need for achievement, this style requires recognition, praise, and constructive feedback. Most of all, however, the conceptual style needs freedom. (p. 25)

Behavioral

The behavioral style, which is associated with Jung’s typology of SF (sensing/feeling), has a low tolerance for ambiguity and is oriented to people and social concerns. Performance is based on focusing on people and their needs. The behavioral and the conceptual styles are less logical in their approach than the directive and analytical. Rowe and Mason (1987) described some of the traits people with the behavioral style display as follows:

The behavioral style is people oriented and exhibits a keen sensitivity on directed, personal feelings. People with this style tend to be empathetic and to accord worth and compassion to those with whom they work. Love is the word that best summarizes their caring for other people. They are good listeners -- attentive to the individual -- and good communicators. They prefer the "soft" data of personal experience over the so-called "hard" data of questionnaires, statistical calculations, and detached analysis. It is through direct personal experience that they come to know and to understand; they prefer face-to-face meetings and discussions to reports and memorandums. They try to be as supportive and empathetic to each individual as possible. (pp. 29, 30)

These four basic styles when used together describe combinations of styles.

Rowe and Mason (1987) commenting on style use stated,

Our studies show that a typical person has one or two "dominant" styles -- that is, he or she scores well above the average for those styles on the Decision Style Inventory. We also find that most people have one or two "backup," or supporting, styles as well. (p. 35)
Scores for different styles are combined to determine what positions or type of work is best suited for the individual. Alignment is achieved by matching one’s style with the demands of the decision structure.

Generally people utilize their dominant and backup styles. Rowe and Mason (1987) reported,

Most of us in our daily lives use some backup styles in addition to our dominant styles. We are analytical when we study things carefully, conceptual when we create new ideas, behavioral when we engage in an intense relationship with another individual, and directive when we move into action to get things done. A truly flexible personality is one with a capacity in each of these pure styles (pp. 34-35)

A summary of seven basic patterns that are combinations of styles are shown in Table 1. The Decision Style Inventory has been completed by more than 10,000 individuals from which basic patterns have been developed. These patterns are then the averages of the population who have taken the Decision Style Inventory and placed within a range of scores of which the low end is shown as the minimum score required to be considered typical of the pattern. A basic pattern developed for senior executives or leaders is included in this table and has been underlined for easier reviewing. The combination of the analytical and conceptual styles with a score of 170 or higher describes the pattern typical of a senior executive or leader. Rowe and Mason (1987) defined a typical person as "one whose score is the average of the population" (p. 42).

In summary, the Decision Style Inventory is an instrument that is used to classify people according to the four basic styles. It also reveals complex patterns
of styles, showing dominant and backup styles. Instructions for completing the Decision Style Inventory are detailed in Appendix B.

Table 1. Basic DSI Style Patterns.

<table>
<thead>
<tr>
<th>Pattern</th>
<th>Score</th>
<th>Typical of</th>
</tr>
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<tbody>
<tr>
<td>Left brain</td>
<td>165 or higher</td>
<td>Science, finance, law</td>
</tr>
<tr>
<td>(analytical + directive)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Right brain</td>
<td>135 or higher</td>
<td>Psychology, teachers, artists</td>
</tr>
<tr>
<td>(conceptual + behavioral)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Idea orientation</td>
<td>170 or higher</td>
<td>Senior executives, leaders</td>
</tr>
<tr>
<td>(analytical + conceptual)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action orientation</td>
<td>130 or higher</td>
<td>Supervisors, sales people, athletes</td>
</tr>
<tr>
<td>(directive + behavioral)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Executive</td>
<td>155 or higher</td>
<td>Entrepreneurs, cross-over executives</td>
</tr>
<tr>
<td>(conceptual + directive)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>145 or higher</td>
<td>Technical managers</td>
</tr>
<tr>
<td>(analytical + behavioral)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Middle management</td>
<td>245 or higher</td>
<td>Flexible management style</td>
</tr>
<tr>
<td>(directive + analytical</td>
<td></td>
<td></td>
</tr>
<tr>
<td>+ conceptual)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Rowe and Mason (1987, p. 52).

This review of decision styles narrowed the focus of this study to the individual level. Understanding a volunteer leader's decision style, which depends on experiences, training, habits, and the environment in which the situation occurs,
then leads to a review of learning strategies that also depend on and are affected by similar issues.

Learning Strategies

This review provided background information and definitions for five areas of adult learning and 15 learning strategies associated with these five areas. An understanding of the learning strategies which volunteer leaders utilized provided an opportunity to compare these learning strategies to their decision styles.

People depend on certain skills or techniques to accomplish learning tasks. The choice of how one learns can come from experience, training, habits, or other areas and often this choice occurs without much thought. However, this choice can affect the degree of success in the learning activity.

Fellenz (1993) reported that learning strategies are "the techniques or skills that an individual elects to use in order to accomplish a learning task" (p. 1). This definition is consistent with and therefore utilized for the purposes of this study. The effectiveness of learning strategies depends on the situation. Weinstein (1986) defines learning strategies "as behaviors and thoughts that a learner engages in during learning and that are intended to influence the learner’s encoding process" (p. 315). Another learning specialist, McKeachie (Fellenz, 1993) emphasized the current attention to learning strategies when he wrote,

What is different today is that we have a better theoretical understanding of the reasons these study strategies work. Cognitive psychology has developed a set of laboratory research studies and
theoretical concepts that are much closer to the natural learning settings in which study strategies have been applied. (p. 1)

People are confronted daily with real-life situations that require solving, hence the term "real-life learning" is used because this learning is pursued for immediate application. These problems are different from academic situations in a number of ways. Some differences are in the recognition and definition of the problem for oneself without instructor involvement, and also these real-life situations are seldom well-structured and may not provide all relevant information. Basically, real world problems are more similar to or representative of real-life situations than academic situations.

An instrument used to assess learning strategies is the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS). This survey was developed by the staff of the Center for Adult Learning Research at Montana State University.

The Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) ranks real-life learning strategy use according to how the individual assesses the importance of various strategies in their own individual learning situation scenarios. SKILLS assumes that five specific learning areas are prevalent in how adults engage in learning. These five include metacognition, or knowing about and directing one's own thinking and learning processes; metamotivation, the awareness of and control over factors that energize and direct (motivate) our learning; memory, which is the storage, retention, and retrieval of knowledge; critical thinking, which is disciplined, self-directed thinking which exemplifies the
perfection of thinking appropriate to a particular mode or domain of thought (Paul, 1993, p. 33); and resource management, which is the process of identification, evaluation, and use of resources relevant to the learning task.

To take SKILLS the individual reviews four different scenarios depicting real-life learning situations which necessitate various levels and types of learning. The individual answers 15 questions for each scenario which assess how likely they are to use specific learning skills or techniques in resolving that learning issue. Instructions for completing the SKILLS survey are detailed in Appendix C.

Metacognition

Metacognition is the knowledge and control one has over one’s thinking and learning (Brown, 1982). Metacognitive knowledge requires awareness of self, insight into requirements of the task, and adeptness at certain strategies.

The three SKILLS metacognition learning strategies are planning the learning, monitoring the learning process, and adjusting the learning process, all being interactive and dependent on each other. Definitions of these three strategies from Counter and Fellenz (1993, p. 6) are as follows: Metacognitive planning is analyzing the best way to proceed with a specific learning activity. Metacognitive monitoring is assessing how well one is proceeding through a learning project. Metacognitive adjusting is the modifying and revising done to learning plans in relationship to the learner’s evaluation of the process.
Metamotivation

Motivation in learning strategies is concerned with why an individual experiences a need or desire to learn and how this relates to factors effecting behavior. The expectation of success is as important a motivator for entry into self-directed learning tasks as it is for entry into programs.

Tough (1971) identified seven reasons or motivations that cause the beginning or continuing of a learning episode. The strongest motivation for learning occurs when adults successfully learn what they value and want to learn in an enjoyable manner (Wlodkowski, 1985).

Metamotivation is the label given to the motivation of the individual to learn to distinguish it from factors relating to reasons for participating in educational programs (Fellenz, 1993, p. 10). The three SKILLS metamotivation learning strategies are attention to the learning, reward/enjoy the learning, and confidence in learning. Definitions from Fellenz (1993, p. 10-11) are as follows: Attention to the learning is the focusing of an individual's learning abilities on material to be learned. Reward/enjoy the learning is the motivational factor of anticipating or recognizing the value to one's self of learning specific material. It also includes the fun of learning and the satisfaction with the outcome of the learning activity. Confidence in learning is reassurance of one's efficiency and support for feelings of confidence.
Memory

Memory of past experiences are what adults rely on to determine present behavior. Wingfield and Byrnes (1981) described memory as "the capacity of humans to retain information, to recall it when needed and recognize its familiarity when they later see it or hear it again" (p. 4).

Memory processes are mental activities that store information in memory and the activities that later make use of that information. Processes involve encoding (acquisition), storage (retention), and retrieval (recall). The encoding process interprets a stimulus and stores a representation of that interpretation in memory (Seamon, 1980). The type and level of encoding depends on the task requirements. According to Paul and Fellenz (1993), the storage or retention process is necessary if a person is to use the information as the basis for the later act of remembering. Retention involves the act of storing encoded information. The retrieval process, according to Paul and Fellenz (1993, p. 14), consists of four aspects: recognition, the ability to recognize things that are known through previous learning, is the adult's major use of the memory system; recall, the unaided reproduction of previously learned material; recollection, the process of remembering a complex of events that occurred at the time of learning; and, reconstruction, the reproduction, not of the learned material itself, but of the order in which it was originally presented.

Memory structures, short-term or long-term, are concerned with the form and nature of information storage as a product of the memory processes.
Short-term memory holds information that is necessary for some immediate use. Long-term memory refers to the capacity to store information for activities that may occur at some unspecified time in the future. Two aspects of long-term memory are semantic, our working knowledge, and episodic, specific events that are recalled by remembering the context of the event. The theory on level of processing maintains that the deeper a stimulus is processed, the stronger, more durable and easily retrievable will be the memory (Seamon, 1980; Zechmeister & Nyberg, 1982).

The three SKILLS memory learning strategies are organization of memory strategies, external aids, and application of memory. Definitions of these three strategies follow. Organization of memory strategies refers to the manner in which the memory reorders or restructures information from that in which it was originally presented (Seamon, 1980). External aids is relying on the interaction of the mental processes of the individual and the manipulation of the environment to ensure recall, reported Paul and Fellenz (1993, p. 17). They further reported that application of memory involves using processes, structures, and strategies of long-term memory to enable individuals to access their vast knowledge system in order to plan, carry out, and evaluate learning (p. 18).

Critical Thinking

Critical thinking has become a much talked about and investigated area during the past two decades not only for educators but also for others interested in
developing human potential. Sternberg, according to Fellenz (1993, p. 21),
categorized critical thinking under three traditions of thought: philosophical,
educational, and psychological. The philosophical focuses on logical systems
versus the personal and physical constraints. In line with this tradition, Ennis
(1987) described critical thinking as "reasonable, reflective thinking that is focused
on deciding what to believe or do" (p. 10). Paul (1990), also thinking
philosophically, stated, "Critical thinking is disciplined, self-directed thinking which
exemplifies the perfection of thinking appropriate to a particular mode of domain
of thought" (p. 51). Educational definitions of critical thinking include Beyer's in
Fellenz (1993, p. 21), who said that "critical thinking is a collection of discrete skills
or operations each of which to some degree or other combines analysis and
evaluation." Psychological approaches identify components involved in the process
of critical thinking. Sternberg (1986) named three types of components:
metacomponents, performance components, and knowledge-acquisition
components.

Common ground regarding the definition of critical thinking seems to be
deeper or higher level thinking related to creativity and innovation. Fellenz (1993)
espouses that the final and vital goal of critical thinking is improvement of
individual and societal learning (p. 22).

Brookfield (1987) divided critical thinking into four areas: identifying and
challenging assumptions; challenging the importance of context; imagining and
exploring alternatives; and reflective skepticism. The Brookfield (1987) four-step
model is used in SKILLS mainly because it emphasizes a process rather than a component approach and it is simpler to use. Brookfield also emphasized real-life situations which are the same intentions utilized in SKILLS.

The three SKILLS critical thinking strategies are evaluating the assumptions, generating alternatives, and conditional acceptance. Definitions of these three strategies follow. Assumptions, according to Brookfield (1987), can be challenged by critical thinkers if they "try to identify ideas, beliefs, values, and actions based on assumptions, and examine their accuracy and validity" (p. 90). In SKILLS challenging assumptions, according to Fellenz (1993),

invites respondents to examine the accuracy or the acceptance uncritically given to an assumption while others prompt them to identify relationships, spot inconsistencies, or question value sets. (p. 24)

Generating alternatives, according to Fellenz (1993), "encourage hypothesizing within the reality of the situation. Specific techniques used include brainstorming and attempts to envision the future" (p. 25). Conditional acceptance is the questioning of simplistic answers and the predicting of consequences (Fellenz, 1993, p. 25).

Resource Management

The resource management area stems from an examination of three aspects of the use of resources by adult learners. These are the ability to identify appropriate sources of information; the critical use of these resources; and the use of human resources in learning activities.
Regarding the ability to identify appropriate sources, a study by Shadden and Raiford (1984) confirmed that adults are neither educated for change nor trained in the use of modern information sources. Shirk’s (1983) study supports this information by confirming that adults use their own books, themselves, and friends more frequently than any other learning resource even though they evaluate these resources as only mediocre in effectiveness.

Tough (1971) and Smith (1982) both reported problems with adults seeking resources and using them in the reaching of learning goals. Tough (1971) said,

Certain persons would not or could not give the required help, and certain printed materials were useless. Even when beneficial help was received from certain resources, much of it cost the learner a great deal of time, money, effort, or frustration. (p. 105)

Smith (1982), expressing similar concern, said,

One problem that learners frequently report is finding more printed or audiovisual materials available on a topic than they know what to do with. Materials may also be overly technical or too detailed. (p. 103)

The third factor involves the concept of "set." Set, according to Fellenz (1993), is the tendency to maintain the patterns of thinking or behavior that have proven successful in the past (p. 26). Attempts to break traditional patterns and teach more effective methods of learning resource management should consider both the social and psychological environment of the adult learner (p. 27).

Learning strategies that lead to effective use of resources can have a very positive effect on the learning process. Strategies may relate to identifying and using appropriate resources or the manner in which the resource is used.
The three SKILLS resource management strategies are identifying resources, critical use of resources, and using human resources. Definitions of these three strategies follow. Identifying resources concerns not only the learner's awareness of appropriate resources but also the willingness to use these resources. Critical use of resources refers to the ability to make decisions in the selection of resource materials to use in a learning episode. Lastly, using human resources, according to Fellenz (1993), "include the impact of people and the social environment and involves listening to people with different opinions or insights into issues" (p. 27).

Summary

The important role volunteerism has in the United States has been established. Volunteers existed in this country before governments did and volunteers founded this nation. More than half of all Americans serve as volunteers.

The United States operates under three sectors -- government, business, and voluntary -- all of which depend upon one another. The need for a three sector system, all working together and complementing one another, is evident from the history of our nation. Government provides much needed grants and tax incentives to donors of the voluntary sector; business receives profits from the goods and services utilized by the voluntary sector as well as providing a labor pool of voluntary talent; the voluntary sector handles social welfare issues that big
government would be inefficient at or unable to politically accomplish; and the voluntary sector offers individuals the opportunity to contribute their resources to whatever cause they choose rather than letting government decide for them.

Total contributions by individuals, foundations, and corporations to charitable organizations in 1992 was $124 billion (Great Falls Tribune, 1993). Managing the programs on which this money, as well as government grant dollars, is spent requires skilled leadership. Improper management not only fails the people and organizations that donate their resources but it also, and perhaps more importantly, fails the people for whom the volunteer service is targeted or intended. This review of volunteerism defined the dimensions of the organizations that face volunteer leaders.

Effective leadership is at the root of organizational survival. To be effective, organizations today require leaders that can communicate, network, and empower people. The most important resource in any organization is its people. Education plays an important role in achieving organizational success and self improvement. An effective leader provides direction and vision while focusing on people. These effective leadership methods and the review of volunteerism provided the backdrop against which to review decision styles and learning strategies.

An individual's decision style affects not only whether he or she is properly suited for the job he or she does, but also the probability of success in their decisions. Those individuals properly suited for the positions they hold are more
likely to succeed. Many individuals hold positions or work in occupations that do not suit their personal style. The review of decision styles narrowed the focus of this study to the individual level. Understanding that a volunteer leader's decision style depends on experiences, training, habits, and the environment in which the situation occurs led to a clearer review of learning strategies that depend on and are affected by similar issues.

Various learning strategies are used by leaders to enhance the probability of success for different learning scenarios. The choice of how one learns can come from experience, training, habits, or other areas. The effectiveness of learning strategies depends on the situation. Problems confronting executive level volunteer leaders are not always well defined, so relying on one's real-life experiences is not unusual.

In conclusion, people's histories and backgrounds determine how they react to problems. Matching the right people with the proper situations and providing learning opportunities based on individual preferences will enhance the probability of success in their decision making and learning retention. If decision style and learning strategies can both depend on the background and experiences of the individual, then how the individual learns during these experiences or situations provides a connection between one's decision style and learning strategy. The way an individual perceives and comprehends stimuli then influences the techniques used to learn for the given situation.
CHAPTER 3

PROCEDURES

General Design

This study utilized a Decision Style Inventory, a Self-Knowledge Inventory of Lifelong Learning Strategies, a demographics questionnaire, correlation statistics, and the multivariate statistical technique of discriminant analysis to investigate the relationship between the decision styles and learning strategies of the presidents or chairpersons of volunteer organizations. This study also investigated the relationship between both the decision styles and learning strategies of the presidents or chairpersons of volunteer organizations and specific data such as age, education, experience, and gender.

This study utilized a correlational research design. Gay (1987) described correlational research as "research that involves collecting data in order to determine whether, and to what degree, a relationship exists between two or more quantifiable variables" (p. 587). Correlational research describes an existing condition. The degree of relationship is expressed as a correlation coefficient. If a relationship exists between two variables, it means that scores within a certain
range on one measure are associated with scores within a certain range on another measure. Further describing the correlational method, Gay (1987) stated,

Correlational studies provide an estimate of just how related two variables are. If two variables are highly related, a correlation coefficient near +1.00 (or -1.00) will be obtained; if two variables are not related, a coefficient near .00 will be obtained. The more highly related two variables are, the more accurate are predictions based on their relationship. (p. 264)

The basic correlational design requires scores for each member of the sample plus one score for each of the variables of interests. The paired scores are then correlated. The resulting correlation coefficient indicates the degree of relationship between the two variables.

In a correlational study designed to explore or test hypothesized relationships, a correlation coefficient is interpreted in terms of its statistical significance. Statistical significance refers to whether the obtained coefficient is really different from zero and reflects a true relationship, not a chance relationship; the decision concerning statistical significance is made at a given level of probability.

According to Gay (1987), "in a relationship study, the scores for each variable are in turn correlated with the scores for the complex variable of interest" (p. 271). There is one correlation coefficient for each variable; each coefficient represents the relationship between a particular variable and the complex variable under study. Discussing the computation of a correlation coefficient, Gay (1987) reported,
The most commonly used technique is the product moment correlation coefficient, usually referred to as the Pearson $r$, which is appropriate when both variables to be correlated are expressed as ratio data or interval data. Further, since the Pearson $r$ results in the most reliable estimate of correlation, its use is preferred even when other methods may be applied. (p. 271)

**Population**

The population for this study was the presidents or chairpersons of the nonprofit, volunteer organizations with an annual operating budget of $25,000 or more that are located in the City of Great Falls or Cascade County, Montana. The participants were either current or past presidents or chairpersons of volunteer organizations that had served in this capacity anytime between 1 January 1974 and the present.

**Sample**

A total of 70 volunteers were given the Decision Style Inventory (DSI), the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS), and the demographics questionnaire. Gay (1987, p. 137) reported that for correlational studies at least 30 subjects are needed to establish the existence or nonexistence of a relationship. The participants for this study were identified by contacting nonprofit organizations, the Chamber of Commerce, and citizens that were familiar with volunteer social service programs. Once a list of chairpersons or presidents of nonprofit organizations was started, the participants were asked to
identify previous leaders and a continuous sample list was generated by this networking technique.

When filling out the questionnaires, participants were also asked to identify additional nonprofit organizations that had annual operating budgets of at least $25,000 and additional organizations that they had served as president or chairperson.

**Instruments**

A one-page demographics questionnaire was prepared and utilized to generate demographic data about executive volunteer leaders included in this study (Appendix A). This questionnaire also sought information relevant to some of the research questions of the study. In addition, each volunteer leader was asked to complete two instruments: a Decision Style Inventory and a Self-Knowledge Inventory of Lifelong Learning Strategies. After the questionnaire and both inventories were completed, a comparison was made to determine each individual’s learning strategy and decision making style.

**Demographics Questionnaire**

The demographics questionnaire served multiple purposes for this study. First, it provided contact information about participants such as their name, address, and phone numbers so that the researcher could get back to them if required. Second, it provided necessary information about variables relative to
this study such as age, gender, volunteer leadership experience, and formal education. Third, it provided participants with two questions aimed at measuring training provided by volunteer organizations and an additional question utilized in this study. This question was: Why did you accept the position of chairperson/president? Fourth, it provided verification that the participant’s position held within the volunteer organization and the organization’s annual operating budget both met the criteria of this study. Lastly, it provided additional organizations and volunteer leaders to include in this study.

Decision Style Inventory

The Decision Style Inventory (DSI) is an instrument that is used to classify people according to the four basic styles of directive, analytical, conceptual, and behavioral. It also reveals complex patterns of styles, showing dominant and backup styles.

The Decision Style Inventory was developed by Rowe in 1981, and it helps as one of a number of ways an executive can identify what is required to achieve success (Rowe & Mason, 1987, p. 5). To use the DSI the individual reads and answers 20 questions, ranking them according to which answer fits their personality and feels right or flashes into their mind first. The individual’s answers should reflect what they prefer to do, not what they believe is correct or desirable (Rowe & Mason, 1987, pp. 38-39). See Table 2 for the typical range of decision style
scores. There is no "right" or "wrong" answers. Instructions for completing the DSI survey are detailed in Appendix B.

Table 2. Typical Range of Decision Style Scores.

<table>
<thead>
<tr>
<th></th>
<th>Least Preferred</th>
<th>Backup</th>
<th>Dominant</th>
<th>Very Dominant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive</td>
<td>20 to 67</td>
<td>68 to 81</td>
<td>82 to 89</td>
<td>90 to 160</td>
</tr>
<tr>
<td>Analytical</td>
<td>20 to 82</td>
<td>83 to 96</td>
<td>97 to 104</td>
<td>105 to 160</td>
</tr>
<tr>
<td>Conceptual</td>
<td>20 to 72</td>
<td>73 to 86</td>
<td>87 to 94</td>
<td>95 to 160</td>
</tr>
<tr>
<td>Behavioral</td>
<td>20 to 47</td>
<td>48 to 61</td>
<td>62 to 69</td>
<td>70 to 160</td>
</tr>
</tbody>
</table>

Source: Rowe and Mason (1987, p. 44).

Self-Knowledge Inventory of Lifelong Learning Strategies

An instrument used to assess learning strategies is the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS). This survey was developed by the staff of the Center for Adult Learning Research at Montana State University.

The Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) ranks real-life learning strategy use according to how the individual assesses the importance of various strategies in their own individual learning situation scenarios. SKILLS concentrates on five areas prevalent in adult learning. These
five include metacognition, metamotivation, memory, critical thinking, and resource management.

To use SKILLS the individual is put in four different scenarios depicting real-life learning situations which necessitate various levels and types of learning. Although there are a number of different real-life scenarios available for scoring the SKILLS survey, this researcher chose the scenarios titled fund raising event, volunteer work, recruiting leaders, and letter to editor. Two of these scenarios, fund raising event and volunteer work, were developed by the researcher. These scenarios where chosen because they appear realistic and likely for individuals who are executive leaders of nonprofit organizations. McKenna, Conti, and Fellenz (1994) reported that

Researchers in the future may either use the existing form of SKILLS which contains scenarios related to Shirk's nine general categories of universals that adults encounter or create specific scenarios using the established forms of SKILLS as a model. Such a choice can allow researchers to tailor their learning strategies instrument to fit their distinctive need.

The individual answers 15 questions for each scenario which assess how likely an individual is to use specific learning skills or techniques in resolving that learning issue. Instructions for completing the SKILLS survey are detailed in Appendix C.

Validity

According to Huck, Cormier, and Bounds (1974), "The concept of validity deals with whether an instrument is truly measuring the specific trait that it is
supposed to measure" (p. 9). The validity of both the Decision Style Inventory (DSI) and the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) instruments are well documented.

Decision Style Inventory

Rowe and Mason (1987) reported, "To validate the Decision Style Inventory, extensive testing has been done over a number of years with different groups" (p. 189). Face validity according to Gay (1992) refers to "the degree to which a test appears to measure what it purports to measure" (p. 156). Face validity in the form of personal discussions with those tested was used to compare an individual's self-perception with the results of the Decision Style Inventory.

Rowe and Mason (1987) reported

Face validity comparing an individual's self-perception with the results of the DSI is in the 90 percent range, as demonstrated in interviews with well over 1,000 individuals. Some of the individuals were in occupations that did not correspond with those predicted by their DSI scores. In almost every such instance, this discrepancy could be explained by other factors. Numerous examples confirm that the DSI evokes an appropriate psychological response and provides people with a keen insight into their real preferences. (p. 190)

Other evaluations have been undertaken by other researchers around the country. One study completed by Hane, Rowe, and Boulgarides (1984) was summarized by Rowe and Mason (1987) when they reported,

The results reported below are based on the study done by Hane, Rowe, and Boulgarides (1984) using a sample of 428 individuals from nine organizations: the Defense Systems Management College (N = 14); the Navy Personnel Group (N = 42); the Office of Naval
Research (N = 98); Army Information Research (N = 14); the Navy Training Group (N = 34); an aerospace company (N = 30); the Southern California Association of Governments (N = 29); a Los Angeles managerial group (N = 22); and middle managers in the California State University (N = 126). The statistical analyses performed included (1) determination of the statistical relationships among the four basic styles of the inventory, (2) examination of the relationships between a given style and each of the twenty questions (item analysis), (3) examination of the intercorrelations between two split halves for each style, and (4) determination of normality of the distribution of the data for each style. The mean scores and the standard deviations were calculated for the four styles for the total sample of 428, as shown in Table [3]. (pp. 190-191)

<table>
<thead>
<tr>
<th>Mean Values</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive</td>
<td>78.0</td>
</tr>
<tr>
<td>Analytical</td>
<td>90.5</td>
</tr>
<tr>
<td>Conceptual</td>
<td>74.8</td>
</tr>
<tr>
<td>Behavioral</td>
<td>56.6</td>
</tr>
</tbody>
</table>


Scores were also calculated for subgroups based on sex and age (62 percent of the sample were men and 38 percent women; 61 percent of the subjects were under age forty). Comparisons were made between mean scores of men and women and between mean scores of the younger and older individuals. The mean scores for the different groups were very similar, and tests of statistical significance revealed that none of the means differed at the 5 percent significance level. The means and standard deviations are shown in Table [4]. (p. 191)
Table 4. Means and Standard Deviations for Total Sample and Subgroups.

<table>
<thead>
<tr>
<th></th>
<th>Total N = 428</th>
<th>Men N = 141</th>
<th>Women N = 86</th>
<th>Under Age 40 N = 139</th>
<th>Age 40 and Over N = 86</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>78.0</td>
<td>79.2</td>
<td>79.9</td>
<td>78.9</td>
<td>80.5</td>
</tr>
<tr>
<td>Std Deviation</td>
<td>15.3</td>
<td>13.7</td>
<td>17.0</td>
<td>15.3</td>
<td>14.5</td>
</tr>
<tr>
<td>Analytical</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>90.5</td>
<td>87.4</td>
<td>88.3</td>
<td>87.2</td>
<td>88.8</td>
</tr>
<tr>
<td>Std Deviation</td>
<td>16.5</td>
<td>14.1</td>
<td>15.7</td>
<td>14.0</td>
<td>15.8</td>
</tr>
<tr>
<td>Conceptual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>74.8</td>
<td>75.0</td>
<td>71.9</td>
<td>74.2</td>
<td>72.7</td>
</tr>
<tr>
<td>Std Deviation</td>
<td>15.2</td>
<td>14.4</td>
<td>16.0</td>
<td>14.9</td>
<td>15.0</td>
</tr>
<tr>
<td>Behavioral</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>56.6</td>
<td>58.3</td>
<td>59.9</td>
<td>59.7</td>
<td>57.9</td>
</tr>
<tr>
<td>Std Deviation</td>
<td>15.5</td>
<td>16.1</td>
<td>15.3</td>
<td>15.3</td>
<td>16.6</td>
</tr>
</tbody>
</table>

Note: Not all individuals who took the DSI indicated their gender or age.
Source: Rowe and Mason (1987, p. 192)

Correlation coefficients among the four styles revealed a strong pattern of relationship, consistent throughout the samples. Rowe and Masón (1987) reported,

The score for each style is the total of the responses to the twenty individual items in each column. To examine how individual items contributed to determination of the style, each of the items was correlated with the total style score. The correlation coefficients indicate the extent to which a particular item contributed to the total score. The scores for 95 percent of the items on each scale were statistically significant and had reasonably high correlation coefficients with the corresponding total style score. Only five out of
the eighty items on the instrument had correlations of less than .15 (6 percent), and only two of the items (2.5 percent) had correlations of less than .10. The results show that the questions and the responses appropriately measure each individual style. (p. 193)

Additionally, Rowe and Boulgarides (1983) reported that the Decision Style Inventory has a face validity of well over 90 percent. Rowe and Mason (1987) reported, "The DSI has been used by well over 10,000 individuals . . . . It has shown excellent face validity in that well over 90 percent of the people who take the inventory agree with its findings" (p. 37). These statistical measures would indicate that the Decision Style Inventory is a valid test instrument.

Self-Knowledge Inventory of Lifelong Learning Strategies

Construct validity assesses the underlying theory of the test. Discussing construct validity Conti and Fellenz (1991) said,

The process of establishing construct validity for SKILLS consisted of literature reviews and obtaining judgement on the constructs from a group of adult education and educational psychology professors. Exhaustive literature reviews were conducted on each of the five constructs and culled for information related to adult learning. Concepts from this review were then linked to scenarios of general areas of adult learning indicated by Shirk. In addition to Robert Sternberg assessing SKILLS, a group of adult educators and Wilbert McKeachie reviewed the constructs and accompanying strategies at a summer institute at the Center for Adult Learning Research. McKeachie reviewed the instrument separately and provided comments to the entire group. The adult educators then critiqued the instruments in small groups. The consensus of the group was that the instrument indeed addressed the five theoretical constructs of metacognition, metamotivation, memory, critical thinking, and resource management. (p. 69)
Content validity, according to Gay (1992), is "the degree to which a test measures an intended content area" (p. 156). For SKILLS, content validity is concerned with the degree to which the items are representative of learning strategies used by adults in real-life situations. Using qualified judges to make a judgement concerning how well the items represented the content area, Conti and Fellenz (1991) stated,

Therefore, the jury selected to assess the initial constructs in the instruments was also asked to judge the degree to which all relevant real-life scenarios were included in the test and the degree to which the items reflected the theoretical constructs of the instrument. This judgement provided a measure of sampling validity. (p. 70)

A second form of content validity is item validity. For SKILLS, item validity was established through the logical process of assessing whether adults responded to the items in meaningful patterns. Conti and Fellenz (1991) reported,

Item validity was established by field testing SKILLS with adult learners in various learning situations throughout the country in diverse locations such as adult basic education programs, graduate and undergraduate university courses, museums, health care facilities, extension education programs, and elder hostel programs. From sites such as these, 253 sample sets of responses were collected; each set consisted of six scenarios. The field-test group ranged in age from 17 to 73 with an average of slightly over 37 years of age. Nearly two-thirds of the respondents were female (62.8%). Although some had a very limited education, nearly three-fourths (73%) had completed a high-school level education. The group also represented a variety of residential areas: Large city over 250,000-29.8%; City of 100,000 to 250,000-5.3%; Town of 20,000 to 100,000-33.5%; Small town of 1,000 to 20,000-21.8%; and Rural area under 1,000-9.6%. Most (91.4%) spoke English as their primary language. Many occupations were represented in the group including educators, students, clerical workers, farmers, blue-collar workers, and homemakers. This diverse group of adults was from the West, Southwest, and Midwest. (p. 70)
The validity of the two researcher developed SKILLS scenarios, fund raising event and volunteer work, is supported by reviews conducted by two qualified judges, Fellenz and Conti. These scenarios were field tested by a class of adult education doctoral students.

Reliability

According to Huck, Cormier, and Bounds (1974), "the concept of reliability deals with whether or not an instrument can measure the same trait consistently upon repeated measurements" (p. 9). The reliability of the Decision Style Inventory (DSI) and the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) instruments has been established and both are reputable measuring devices.

Decision Style Inventory

To estimate the reliability of the DSI intercorrelations between split halves of each style were analyzed. Rowe and Mason (1987) reported,

For this analysis, the items were split into two halves of ten items each, the odd-numbered items in one half and the even-numbered items in the other half. Total scores were then calculated for each half of the style, one from each of the two sets of ten items. Each style was then correlated with the two scores. The correlations were corrected for test length, using the Spearman-Brown formula. This analysis provided an indication of the internal consistency of each of the styles. The correlation coefficients ranged from .5 to .7 for the split-half test. These split-half correlation coefficients should be interpreted in terms of purpose, design, and use of the inventory. The instrument was not designed so that each item measured exactly the same property as every other item. Therefore, internal
consistency (high correlations among the items of a style) would not necessarily be expected, although a coefficient of .7 is considered highly appropriate for this design. (p. 193)

Another measure of the reliability used was a test-retest procedure. Rowe and Mason (1987) reported,

This approach also showed a 0.7 correlation, examining the pattern among the four styles. That is, if all four styles were unchanged when the test was retaken, it was considered reliable. Fifteen percent of the individuals who retook the test showed a change in one style category, and another 15 percent showed a change in two or more categories. (p. 194)

Additionally, Rowe and Boulgarides (1983) reported that the Decision Style Inventory has a reliability of 70 percent.

**Self-Knowledge Inventory of Lifelong Learning Strategies**

To establish the overall reliability for SKILLS, a coefficient of equivalence was calculated. Comparing the answers to questions from two categories of three similar types of scenarios, Conti and Fellenz (1991) reported,

The correlation between forms was .71; this is an estimate of the reliability of the instrument if it consisted of 54 items. Since the instrument actually consisted of the full 108 items, the equal length Spearman-Brown of .83 and the Guttman split-half of .83 are more accurate measures of the reliability of SKILLS. (p. 71)

A second correlation of equivalence was calculated for a set of six more scenarios. According to Conti and Fellenz (1991),

The correlations for the 53 cases in this grouping were as follows: correlation between forms=.72, equal length Spearman-Brown=.84, and Guttman split-half=.84. (p. 71)
Since all of these correlations are similar and are either at or above the commonly accepted standard of .7, SKILLS is a reliable instrument for assessing adult learning strategies in real-life situations.

Data Analysis

The method used to gather the data and compile it along with a description of the statistical techniques used for this study are described below.

Method

The participants selected for this study were initially located by contacting three known nonprofit organizations with annual operating budgets of at least $25,000. These three organizations were the Junior League of Great Falls, the Red Cross Big Sky Chapter, and the Great Falls Area Chamber of Commerce. Generally this size of an organization has at least one administrative paid staff member, usually a secretary and occasionally a paid executive director. These paid staff members were asked to provide the name of their organization's current president or chairperson and a listing of the organization’s past presidents or chairpersons. The Junior League of Great Falls, the Red Cross Big Sky Chapter, and the Great Falls Area Chamber of Commerce all provided listings of past chairpersons or presidents. Since this study covered a 20 year period, some of the past volunteer leaders were not available because they had moved away, were no longer alive or they had some other reason for not taking part in this study. A high
success rate was achieved for having volunteers agree to be part of this study. The Junior League of Great Falls had 19 eligible candidates of which 18 (95%) took part in this study, the Red Cross Big Sky Chapter had 7 eligible candidates of which all 7 (100%) took part in this study, and the Great Falls Area Chamber of Commerce had 17 eligible candidates of which 10 (59%) took part in this study.

The participants in this study were all volunteers. The current presidents and chairpersons were either contacted at their volunteer organization location, their regular career workplaces, or at their places of residence. The past presidents or chairpersons were contacted in a similar manner and also with the help of the organization provided listings. Each participant was asked on the questionnaire to provide the name of the person they succeeded in the organization, which provided a good verification of the listings and also served to develop a listing for organizations that did not provide any names. Many of the participants also provided information about other nonprofit organizations that they knew met the criteria of this study. Participants also identified spouses, friends, co-workers, and acquaintances that were eligible to be part of this study.

The participants represented a total of 50 nonprofit organizations. The listing of the organizations represented in this study can be found in Appendix D. Participants were personally contacted by the researcher and a convenient meeting location was determined. The researcher personally explained the study to each participant and then answered any questions about either of the two instruments, the Decision Style Inventory (DSI) and the Self-Knowledge Inventory of Lifelong
Learning Strategies (SKILLS), or the demographics questionnaire. Prior to departing, the researcher checked to determine that the responses to the Decision Style Inventory (DSI), the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS), and the questionnaire were readable and that all the requested information was properly completed.

The collected data was entered into a computer data base, dBase III PLUS, Version 1.0, for organization. The Statistical Package for Social Sciences (SPSS/PC+) was used to analyze the data as further described in the statistics section below. Once the data were gathered, the comparison of applicable variables took place to determine possible relationships by using correlation statistics and the multivariate statistical technique of discriminate analysis.

The variables from all participants were correlated to determine the degree of relationship between them. The variables correlated included the Decision Style Inventory (DSI) four basic styles of directive, analytical, conceptual, and behavioral; the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) components of metacognition, metamotivation, memory, critical thinking, and resource management; and participants’ gender, age, education, and experience.

The multivariate statistical technique of discriminant analysis involved using the decision style inventory categories to form two groups. These two groups were different in that one group had a characteristic which they possessed (they were typical leaders according to the decision style inventory statistics) while the
other group did not possess this characteristic (they were not typical leaders according to the decision style inventory statistics). The difference between these groups was not manipulated or brought about by the researcher.

The combined scores for the analytical and conceptual elements of the Decision Style Inventory were calculated. Those with a score of 170 or higher were placed in the typical leaders group while those scoring below 170 were placed in the not typical leaders group. Those with a score of 170 (which is the low end of the range of scores) or higher describe the pattern typical of a senior executive or leader. Rowe and Mason (1987) defined a typical person as "one whose score is the average of the population" (p. 42).

These two different comparison groups, those typical of volunteer leadership positions and those not typical of volunteer leadership positions, made up the dependent or criterion variables for this study. The discriminating variables for this portion of the study included the scores from each of the 15 learning strategies from the SKILLS instrument (planning the learning, monitoring the learning process, adjusting the learning process, attention to the learning, reward/enjoy the learning, confidence in learning, organization of memory strategies, external aids, application of memory, evaluating the assumptions, generating alternatives, conditional acceptance, identifying resources, critical use of resources, and using human resources) and volunteer leaders' age, level of education, years of volunteer leadership experience, and gender.
Statistics

The techniques of correlation statistics and two-group (or simple) discriminant function analysis were used for this study. This study also utilized the following types of descriptive statistics: measures of central tendency, measures of variability, and measures of relationship. The mean is the measure of central tendency that was used to determine the typical or average score of a group of scores. The standard deviation is the measure of variability that was used to indicate how spread out a group of scores were. The Pearson r is the measure of relationship used to indicate to what degree two sets of scores were related.

The Pearson r is the most appropriate measure of correlation when the sets of data to be correlated represent either interval or ratio scales. The calculated Pearson r value is then compared to a table value which indicates how large the r needs to be in order to be statistically significant for the number of subjects and the level of significance. The degrees of freedom for Pearson r is computed as N - 2, which for this study was 70 - 2 = 68. The selected level of significance was equal to .05. For this study the table value was .2319; therefore, the calculated correlation coefficients had to be greater than .2319 to indicate a true or statistically significant relationship between the variables.

Discriminant analysis is a multivariate statistical technique that allows a researcher to analyze or study the differences between several groups of objects with several variables simultaneously. It can be used to interpret how groups are different. According to Kachigan (1986),
Discriminant analysis is a procedure for identifying boundaries between groups of objects, the boundaries being defined in terms of those variable characteristics which distinguish or discriminate the objects in the respective criterion groups. (p. 357)

The criterion variables in this study are dichotomous for a person must fall into one of these possible groups, and they are nominal since they involve group membership. The variables used to make the prediction are called discriminating variables. The discriminating variables include scores from the 15 components of the SKILLS instrument and volunteer leaders' age, level of education, years of volunteer leadership experience, and gender. According to Buck, Cormier and Bounds (1974), "when a research is interested in predicting to a dichotomous criterion variable, a two-group (or simple) discriminant function analysis is conducted" (p. 161).

The four categories of the Decision Style Inventory (directive, analytical, conceptual, and behavioral), the five categories of the Self-Knowledge Inventory of Lifelong Learning Strategies and their 15 learning strategies [metacognition (planning the learning, monitoring the learning process, and adjusting the learning process), metamotivation (attention to the learning, reward/enjoy the learning, and confidence in learning), memory (organization of memory strategies, external aids, and application of memory), critical thinking (evaluating the assumptions, generating alternatives, and conditional acceptance), and resource management (identifying resources, critical use of resources, and using human resources)] are all variables that are classified as interval scale. Gay (1987) described the interval
scale as "a measurement scale that classifies and ranks subjects, is based upon predetermined equal intervals, but does not have a true zero point" (p. 589).

The variables of experience in years as a volunteer leader, the number of years of formal education, and the age of the participant are all classified as ratio scale. Gay (1987, p. 592) described the ratio scale as "the highest level of measurement that classifies subjects, ranks subjects, is based upon predetermined equal intervals, and has a true zero point."

The variable of gender is considered as nominal scale which simply classifies persons or objects into two or more categories.

The criterion variables and the discriminating variables resulted in a discriminant function equation and an F ratio for determining significance. The F test is a test of significance used to determine whether the discriminant function prediction equation is able to facilitate more accurate prediction than would be possible by chance alone. The result of the F test indicates whether there is a significant increase in accurate prediction above the 50% level that would be expected.
CHAPTER 4

FINDINGS OF THE STUDY

Participants

A total of 70 current and past chairpersons and/or presidents took part in this study during the period of May 1994 to June 1994. Participants were given both oral and written instructions by the researcher prior to completing the Decision Style Inventory, the Self-Knowledge Inventory of Lifelong Learning Strategies, and the volunteer leader questionnaire. The researcher stayed with the participants while they completed the three instruments. The total time spent with each participant was approximately 40 minutes.

There were 42 male (60%) and 28 female (40%) executive volunteer leaders that agreed to complete the volunteer leader questionnaire, the Decision Style Inventory, and the Self-Knowledge Inventory of Lifelong Learning Strategies instruments. Participants ranged in age from 33 to 77 years. The mean age was 52.5 years, with a standard deviation of 8.44.

Education

A total of 58 (83%) of the participants had completed post-secondary education. The types and percentages of degrees held by the participants were
high school diplomas 12 (17%), associate degrees 1 (1%), baccalaureate degrees 32 (46%), masters degrees 14 (20%), juris doctorates 10 (14%), and doctorate degrees 1 (1%). The average number of years of formal education for all participants combined was 16.6, with a standard deviation of 2.03.

**Experience**

The number of years that the participants had served as chairpersons and/or presidents ranged from 1 to 20 years. The average number of years of volunteer leadership for all participants combined was 3.5, with a standard deviation of 3.23. The distribution of experience and the total participants with that experience was as follows: 1 year -- 22; 2 years -- 13; 3 years -- 9; 4 years -- 8; 5 years -- 5; 6 years -- 4; 7 years -- 3; 8 years -- 3; and, one each with 9 years, 14 years, and 20 years.

**Nonprofit Organizations**

The participants represented a total of 50 nonprofit organizations. A total of 18 participants had served as the chairperson or president for more than one organization. The listing of the organizations represented in this study can be found in Appendix D.

The nonprofit organizations represented ranged in annual operating budget size from $25,000 to $140,000,000. The average annual operating budget for all the organizations in the study was $3,613,139, with a standard deviation of 17,798. A summary of the volunteer leader questionnaire results is shown in Table 5.
Table 5. Means of Demographic Questionnaire Data for All Participants.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N = 70</td>
<td>n = 42</td>
<td>n = 28</td>
</tr>
<tr>
<td>Age</td>
<td>52.5</td>
<td>54.6</td>
<td>49.5</td>
</tr>
<tr>
<td>Years of Formal</td>
<td>16.6</td>
<td>17.0</td>
<td>16.1</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of President/</td>
<td>3.5</td>
<td>4.0</td>
<td>2.8</td>
</tr>
<tr>
<td>Chairperson Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dollar Size of Annual</td>
<td>$3,613,139</td>
<td>$5,895,600</td>
<td>$144,302</td>
</tr>
<tr>
<td>Operating Budget</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Leadership Training

The volunteer leader questionnaire showed that a large percentage of participants (76%) perceived that they never, seldom, or sometimes received leadership training from their volunteer organizations. The largest number, 31 of the 108 participants, responded that they never receive leadership training. An equal size group of 31 also stated that they sometimes received leadership training. The concentration of scores is demonstrated by the Lickert score average. Using a low value of 1 for "never received leadership training from the volunteer organization" and a high value of 5 for "very often received leadership training from the volunteer organization," the average for all participants was 2.6 or roughly half way between "seldom" and "sometimes." The frequencies of answers provided by the participants concerning leadership training are shown in Table 6.
Table 6. Summary of Responses to Training Questions.

<table>
<thead>
<tr>
<th></th>
<th>Total</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leadership Training</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responses Received</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>31</td>
<td>27</td>
<td>4</td>
</tr>
<tr>
<td>Seldom</td>
<td>20</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Sometimes</td>
<td>31</td>
<td>26</td>
<td>5</td>
</tr>
<tr>
<td>Often</td>
<td>16</td>
<td>3</td>
<td>13</td>
</tr>
<tr>
<td>Very Often</td>
<td>10</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td><strong>Organizational/Mission Training</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responses Received</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Never</td>
<td>13</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Seldom</td>
<td>11</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>Sometimes</td>
<td>32</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>Often</td>
<td>39</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Very Often</td>
<td>13</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Organizational Training

Conversely a similar percentage of participants (77%) perceived that they had sometimes, often, or very often received organizational or mission training from their volunteer organizations. The largest number, 39 of the 108 participants, responded that they often receive organizational or mission training. The next largest group, 32 participants, stated that they sometimes received organizational or mission training. The concentration of scores is again demonstrated by the Lickert score average. Using a low value of 1 for "never received organizational training from the volunteer organization" and a high value of 5 for "very often
received organizational training from the volunteer organization," the average for all participants was 3.3 or roughly one-third of the way between "sometimes" and "often." The frequencies of answers provided by the participants concerning organizational or mission training are shown in Table 6.

**Reasons for Accepting Volunteer Position**

The responses to the question "Why did you accept the position of chairperson/president?" were personalized and difficult to tabulate. The variety of reasons that were given by the participants were grouped by the researcher into three broad categories. Of the 69 responses received (one participant did not answer this question) the categories were as follows: those who felt they could make a difference and wanted the challenge (29%); those who felt an obligation or that were committed to the cause or service offered by the organization (33%); and the largest group, those who were either asked or elected to serve and had an interest in the mission of the organization (38%).

**Instruments**

Results of the Decision Style Inventory and the Self-Knowledge Inventory of Lifelong Learning Strategies are detailed below.
Decision Style Inventory

The largest percentage of participants (30%) were classified as having the behavioral decision style. The remaining percentages by group were directive (27%), analytical (23%), and conceptual (20%). This information provides a response to the second research question, "What decision styles are utilized by presidents or chairpersons of volunteer organizations?" The means and standard deviations of the DSI instrument for all participants are shown in Table 7.

Table 7. DSI Means and Standard Deviations Summary.

<table>
<thead>
<tr>
<th>Decision Style</th>
<th>Mean Values</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directive</td>
<td>73.9</td>
<td>15.0</td>
</tr>
<tr>
<td>Analytical</td>
<td>86.2</td>
<td>14.8</td>
</tr>
<tr>
<td>Conceptual</td>
<td>76.9</td>
<td>16.6</td>
</tr>
<tr>
<td>Behavioral</td>
<td>63.0</td>
<td>15.6</td>
</tr>
</tbody>
</table>

Self-Knowledge Inventory of Lifelong Learning Strategies

The largest percentage of participants (40%) scored highest on the resource management component of SKILLS. The three highest mean scores for learning strategies were planning the learning (from the metacognition component of SKILLS), attention to the learning (from the metamotivation component of SKILLS), and using human resources (from the resource management component of SKILLS). The remaining SKILLS components where individuals scored highest by average were metamotivation (24%), memory (24%), metacognitive (7%), and
Critical thinking (4%). This information provides a response to the first research question, "What learning strategies are utilized by presidents or chairpersons of volunteer organizations?" Specifically, the learning strategies of planning the learning, attention to the learning, using human resources, generating alternatives, and critical use of resources were the most frequently used. The means and standard deviations of the SKILLS instrument for all participants are shown in Table 8.

Table 8. SKILLS Means and Standard Deviations Summary.

<table>
<thead>
<tr>
<th></th>
<th>Mean Values</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metacognitive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>22.3</td>
<td>2.7</td>
</tr>
<tr>
<td>Monitoring</td>
<td>9.1</td>
<td>1.6</td>
</tr>
<tr>
<td>Adjusting</td>
<td>6.4</td>
<td>1.3</td>
</tr>
<tr>
<td>Metamotivation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention</td>
<td>23.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Reward/Enjoy</td>
<td>9.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Confidence</td>
<td>7.0</td>
<td>1.9</td>
</tr>
<tr>
<td>Memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>24.6</td>
<td>2.8</td>
</tr>
<tr>
<td>External</td>
<td>7.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Application</td>
<td>8.5</td>
<td>1.9</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumptions</td>
<td>23.3</td>
<td>2.2</td>
</tr>
<tr>
<td>Alternatives</td>
<td>7.3</td>
<td>1.5</td>
</tr>
<tr>
<td>Conditional Acceptance</td>
<td>8.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Resource Management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify</td>
<td>26.2</td>
<td>3.4</td>
</tr>
<tr>
<td>Critical Use</td>
<td>8.5</td>
<td>1.5</td>
</tr>
<tr>
<td>Human Resources</td>
<td>8.8</td>
<td>1.4</td>
</tr>
</tbody>
</table>
Correlations

The Pearson $r$ method was used as the measure of correlation for this study. The calculated Pearson $r$ value was then compared to the table value of .2319 at the researcher selected level of significance of .05. The resulting calculated correlation coefficients needed to be greater than .2319 in order to indicate a true or significant relationship between the variables for the 70 participants and the .05 level of significance. The calculated correlation coefficient values for the effected variables are shown in Table 9.

This examination revealed that no strong correlation existed between the variables prior to any grouping, and therefore there is no statistically significant relationship between the individual variables. Only one correlation value out of 117 calculations exceeded .30, and it was only .38. This information provided a partial response, for the correlation portion of this study, to the third research question, "Is there a relationship between the learning strategies and the decision styles utilized by presidents or chairpersons of volunteer organizations?" This information also provides a response to the fourth research question, "Do presidents or chairpersons of volunteer organizations use different learning strategies and decision styles based on their age, education, experience or gender?" Using correlation statistics, no apparent relationship existed in the learning
Table 9. Volunteer Leaders' Matrix of Correlation Coefficients.

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>Directive</th>
<th>Analytical</th>
<th>Conceptual</th>
<th>Behavioral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.08</td>
<td>.06</td>
<td>.08</td>
<td>.11</td>
</tr>
<tr>
<td>Education</td>
<td>.17</td>
<td>.14</td>
<td>.13</td>
<td>.10</td>
</tr>
<tr>
<td>Experience</td>
<td>.08</td>
<td>.04</td>
<td>.17</td>
<td>.14</td>
</tr>
<tr>
<td>Metacognition</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>-.15</td>
<td>.21</td>
<td>-.06</td>
<td>.01</td>
</tr>
<tr>
<td>Monitoring</td>
<td>-.00</td>
<td>.02</td>
<td>.04</td>
<td>-.06</td>
</tr>
<tr>
<td>Adjusting</td>
<td>-.08</td>
<td>.15</td>
<td>.17</td>
<td>-.25</td>
</tr>
<tr>
<td>Metamotivation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attention</td>
<td>-.24</td>
<td>.10</td>
<td>.19</td>
<td>-.07</td>
</tr>
<tr>
<td>Reward/Enjoy</td>
<td>-.29</td>
<td>.03</td>
<td>.12</td>
<td>.13</td>
</tr>
<tr>
<td>Confidence</td>
<td>.05</td>
<td>.02</td>
<td>-.04</td>
<td>-.02</td>
</tr>
<tr>
<td>Memory</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organization</td>
<td>-.01</td>
<td>-.05</td>
<td>.05</td>
<td>-.00</td>
</tr>
<tr>
<td>External</td>
<td>.03</td>
<td>-.01</td>
<td>-.23</td>
<td>.23</td>
</tr>
<tr>
<td>Application</td>
<td>.18</td>
<td>-.03</td>
<td>-.15</td>
<td>.02</td>
</tr>
<tr>
<td>Critical Thinking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assumptions</td>
<td>-.05</td>
<td>.07</td>
<td>.14</td>
<td>-.17</td>
</tr>
<tr>
<td>Alternatives</td>
<td>.09</td>
<td>-.11</td>
<td>.01</td>
<td>.00</td>
</tr>
<tr>
<td>Conditional</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acceptance</td>
<td>.15</td>
<td>-.20</td>
<td>-.06</td>
<td>.11</td>
</tr>
<tr>
<td>Resource Management</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify</td>
<td>.07</td>
<td>-.07</td>
<td>-.13</td>
<td>.14</td>
</tr>
<tr>
<td>Critical Use</td>
<td>.38</td>
<td>-.06</td>
<td>-.00</td>
<td>-.30</td>
</tr>
<tr>
<td>Human Resources</td>
<td>-.07</td>
<td>-.06</td>
<td>.05</td>
<td>.08</td>
</tr>
</tbody>
</table>
strategies and the decision styles of presidents or chairpersons of volunteer organizations based on their age, education, experience, or gender.

Since there were no two variables that were highly correlated, it is then possible to use them all as discriminating variables in the discriminant analysis portion of this study.

**Discriminant Analysis**

The two-group discriminant analysis was used as a method to determine what discriminating variables affected the differences between volunteer leaders that are considered typical or not typical according to their Decision Style Inventory combined analytical and conceptual total scores. The typical leader group, those whose combined analytical and conceptual score was equal to or greater than 170, contained 25 (36%) of the study participants while the not typical leader group, those whose combined analytical and conceptual score was less than 170, contained 45 (64%) of the study participants. There were 14 males and 11 females in the typical group and 28 males and 17 females in the not typical group. A total of 33% (14 of 42) of the males in this study were classified as typical leaders while a total of 40% (11 of 28) of the females were classified as typical leaders. This information provides a response to the fifth research question, "Are presidents or chairpersons of volunteer organizations typical leaders according to their Decision Style Inventory scores?"
The discriminating variables for this discriminant analysis included the 15 learning strategies from the five categories of the Self-Knowledge Inventory of Lifelong Learning Strategies [metacognition (planning the learning, monitoring the learning process, and adjusting the learning process), metamotivation (attention to the learning, reward/enjoy the learning, and confidence in learning), memory (organization of memory strategies, external aids, and application of memory), critical thinking (evaluating the assumptions, generating alternatives, and conditional acceptance), and resource management (identifying resources, critical use of resources, and using human resources)] and the questionnaire demographics of gender, age, education and experience.

The pooled within-groups correlation matrix of discriminating variables was examined for the presence of interdependence among the variables. This examination revealed that no strong correlations existed between the discriminating variables. This correlation made 171 variable comparisons with coefficients ranging as follows: .0 to .1 -- 89; .1 to .2 -- 43; .2 to .3 -- 27; .3 to .4 -- 9; and, .4 to .5 -- 3. The highest value recorded for correlation was -.44 between the external aids learning strategy variable from the SKILLS category of memory and the confidence learning strategy variable from the SKILLS category of metamotivation. Group means and standard deviations are shown in Table 10.
Table 10. Volunteer Leaders' Group Means and Standard Deviations.

<table>
<thead>
<tr>
<th></th>
<th>Typical Leaders</th>
<th></th>
<th>Not Typical Leaders</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std Dev</td>
<td>Mean</td>
<td>Std Dev</td>
</tr>
<tr>
<td>Attention</td>
<td>9.3</td>
<td>1.5</td>
<td>8.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Planning</td>
<td>9.2</td>
<td>1.6</td>
<td>9.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Critical Use</td>
<td>9.0</td>
<td>1.4</td>
<td>8.7</td>
<td>1.5</td>
</tr>
<tr>
<td>Human Resources</td>
<td>8.8</td>
<td>1.9</td>
<td>9.0</td>
<td>1.7</td>
</tr>
<tr>
<td>Alternatives</td>
<td>8.8</td>
<td>1.6</td>
<td>8.9</td>
<td>1.5</td>
</tr>
<tr>
<td>Identify</td>
<td>8.3</td>
<td>1.4</td>
<td>8.5</td>
<td>1.6</td>
</tr>
<tr>
<td>Application</td>
<td>8.0</td>
<td>1.3</td>
<td>8.2</td>
<td>1.6</td>
</tr>
<tr>
<td>External</td>
<td>7.8</td>
<td>1.9</td>
<td>8.9</td>
<td>1.8</td>
</tr>
<tr>
<td>Organization</td>
<td>7.8</td>
<td>1.5</td>
<td>8.0</td>
<td>1.5</td>
</tr>
<tr>
<td>Assumptions</td>
<td>7.7</td>
<td>1.7</td>
<td>7.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Confidence</td>
<td>7.6</td>
<td>2.3</td>
<td>7.6</td>
<td>2.2</td>
</tr>
<tr>
<td>Reward/Enjoy</td>
<td>7.3</td>
<td>2.0</td>
<td>6.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Adjusting</td>
<td>7.2</td>
<td>1.4</td>
<td>6.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Cond. Acceptance</td>
<td>7.0</td>
<td>1.4</td>
<td>7.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Monitoring</td>
<td>6.3</td>
<td>1.3</td>
<td>6.4</td>
<td>1.2</td>
</tr>
<tr>
<td>Age</td>
<td>52.5</td>
<td>6.4</td>
<td>52.6</td>
<td>9.4</td>
</tr>
<tr>
<td>Education</td>
<td>17.1</td>
<td>2.1</td>
<td>16.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Experience</td>
<td>4.2</td>
<td>3.1</td>
<td>3.1</td>
<td>3.3</td>
</tr>
</tbody>
</table>

A stepwise selection method was used to produce the discriminant functions that contributed the most to the two groups. Selection criteria were based on Wilks' lambda. According to Klecka (1980), Wilks' lambda "is a statistic which takes into consideration both the differences between groups and the cohesiveness or homogeneity within groups" (p. 54). The smaller Wilks' lambda results are used first in the stepwise procedure. The stepwise process identified three variables which provided the greatest discrimination among the two groups. The three
identified variables were external aids, adjusting the learning process, and evaluating the assumptions. The stepwise procedure selects the variables with the lowest Wilks’ lambda value as the variable contributing the most to the discriminant function. Each time a variable is included in the analysis, new F scores and Wilks’ lambdas are calculated for the next step.

The stepwise procedure completed ten steps; however, only three variables were accepted because the contribution of the remaining variables was insignificant beyond the third step. The final variables selected, their Wilks’ lambda value, and their significance levels are summarized in Table 11.

Table 11. Summary of Selected Discriminant Variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>F Score</th>
<th>Wilks’ Lambda</th>
</tr>
</thead>
<tbody>
<tr>
<td>External</td>
<td>5.9279</td>
<td>.91982</td>
</tr>
<tr>
<td>Adjusting</td>
<td>4.5767</td>
<td>.87980</td>
</tr>
<tr>
<td>Assumptions</td>
<td>3.2994</td>
<td>.83123</td>
</tr>
</tbody>
</table>

With a two-group discriminant analysis, a single canonical discriminant function was formed during the analysis. The variables and their standardized canonical discriminant function coefficients were external (-.47775), adjusting (.36423), and assumptions (.32524).

The classification function equation for determining a participant’s selection into one of the two groups was
The canonical discriminant functions group means (group centroids) for the two groups in this study were typical leaders group (.817) and not typical leaders group (-.454). The group centroid for those in the typical leaders group (.817) indicates that each of the 19 variables and the size of their coefficients contribute
to whether a participant is in this group or not. The classification function

equation

\[ D = -0.20 \text{ external} + 0.33 \text{ adjusting} + 0.31 \text{ assumptions} - 7.8, \]
then indicates which group a participant is in.

Utilizing the strongest variables or those that were most discriminating
congeries up a model of what a volunteer leader would be like. This researcher
identified this individual as "leadership aligned."

This "leadership aligned" individual displays strong conceptual and
analytical characteristics. Rowe and Mason (1987) highlighted some of these
characteristics by stating,

People who have a conceptual style are broad "system" thinkers who
have expansive time horizons. They are able to deal with the past,
the present, and the future simultaneously. Psychologically they
have the longest "time span of discretion." They also generally have
the greatest geographical reach and comprehension. People who
have conceptual style tend to value quality and prefer openness,
curiosity, and a sharing of values among their colleagues.
Characterized by a high need for achievement, this style requires
recognition, praise, and constructive feedback. Most of all, however,
the conceptual style needs freedom. (p. 25)

Rowe and Mason (1987) also highlighted some of the characteristics of the
analytical style by stating,

The analytical thinker generally tries to gain the broadest possible
perspective of a problem, seeks to identify previously "taken for
granted" underlying assumptions, exposes these assumptions to
examination, and then argues for a new set of assumptions. This
style tends to use a rather formal decision-making process, in which
many possible alternatives are envisioned, each is carefully
examined, and an evaluation is conducted to determine the optimal
policy to follow. (p. 23)
Reviewing the three strongest discriminating variables of external aids, adjusting the learning process, and evaluating the assumptions as they relate to the "leadership aligned" individual reveals additional significant traits. A discussion of these traits follows.

The learning strategy variable of external aids is part of the SKILLS category of memory, and it refers to the use of external aids to help remember information. The learning strategy variable of external aids was inversely related (because of its negative sign) to whether a participant was potentially placed in the typical leaders group or, as now termed by the researcher, "leadership aligned" individuals. This relationship implies that participants considered typical leaders or "leadership aligned" individuals do not rely on external aids to help them accomplish their leadership tasks.

The learning strategy variable of adjusting the learning process is part of the SKILLS category of metacognition, and it refers to the learner's ability to make corrections or change procedures as feedback is received. The learning strategy variable of adjusting the learning process had a positive, direct relationship on group selection. The higher a participant's learning strategy adjusting the learning process score, the more likely he or she was to be included in the typical leaders group or that this person was a "leadership aligned" individual.

The "leadership aligned" individual is good at understanding extremely complex problems, can handle ambiguity easily, and can see future possibilities. These skills are inherent in the analytical and conceptual styles. This "leadership
aligned" individual gets things done by means of learning new options and creative approaches to analysis, planning, and forecasting. This leader learns to form new strategies, is creative, and is not afraid to take risks.

Earlier in this study, it was explained that a participant's combined analytical and conceptual scores from their decision style inventory determined whether they were in the typical leaders or not typical leaders group. The Decision Style Inventory has been completed by more than 10,000 individuals from which basic patterns have been developed. These patterns are then the averages of the population who have taken the Decision Style Inventory and placed within a range of scores of which the low end determines the minimum score required to be considered typical of the pattern. The combination of the analytical and conceptual styles with a score of 170 or higher describes the pattern typical of a senior executive or leader. Rowe and Mason (1987) defined a typical person as "one whose score is the average of the population" (p. 42). The question then for the discriminant analysis was whether any other discriminating variables could successfully predict or classify participants into either the typical leaders or not typical leaders group above the fifty-fifty chance afforded by guessing. According to Klecka (1980), "Classification is a separate activity in which either the discriminant variables or canonical discriminant functions are used to predict the group in which a case [participant] most likely belongs" (p. 42). The discriminating variables of external aids, adjusting the learning process, and evaluating the
assumptions all combine to contribute to classifying participants into group membership. The calculated discriminant scores from the discriminant equation determines which group a participant is assigned to according to the proximity of their score to the group centroids.

This information provides the completed response to the third research question, "Is there a relationship between the learning strategies and the decision styles utilized by presidents or chairpersons of volunteer organizations?"

The accuracy of determining group membership using the three discriminating variables is shown in Table 13. The discriminant analysis conducted was 73% accurate. Of the 25 cases in the typical leaders group, the discriminant analysis correctly placed 18 cases or 72%. Since a chance placement of picking the right group to classify a participant would be 50%, this discriminant analysis resulted in a 23% improvement over a chance placement of a participant into a group.

Table 13. Discriminant Analysis Actual vs. Predicted Group Membership.

<table>
<thead>
<tr>
<th>Actual Group</th>
<th># of Cases</th>
<th>Predicted Group Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical</td>
<td>25</td>
<td>18 (72%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7 (28%)</td>
</tr>
<tr>
<td>Not Typical</td>
<td>45</td>
<td>12 (27%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>33 (73%)</td>
</tr>
</tbody>
</table>
The summarized means and standard deviations for this study's three discriminating variables by group category are shown in Table 14.

Table 14. Means and Standard Deviations for Discriminant Analysis Variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Typical Leaders</th>
<th>Not Typical Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean Std Dev</td>
<td>Mean Std Dev</td>
</tr>
<tr>
<td>External</td>
<td>7.8 1.9</td>
<td>8.9 1.8</td>
</tr>
<tr>
<td>Adjusting</td>
<td>7.2 1.4</td>
<td>6.5 1.3</td>
</tr>
<tr>
<td>Assumptions</td>
<td>7.7 1.7</td>
<td>7.1 1.3</td>
</tr>
</tbody>
</table>
CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to determine what learning strategies and decision styles are used by presidents or chairpersons of volunteer organizations. The study also determined the relationship between these learning strategies and decision styles and investigated whether demographic information such as age, gender, education, and experience had an effect on decision styles or learning strategies. The focus was to understand what learning strategies and decision styles are used by volunteer organizations' presidents or chairpersons.

The relevance of these topics to the field of adult education is significant, especially since the area of volunteer leadership has received virtually no attention from researchers to this date. The results of this study can aid volunteer organizations in enhancing the success of future decision making and learning. These results could also provide volunteer organizations the opportunity to select future volunteer leaders that are better suited for success and to personalize their training to suit its executive leadership.
This study consisted of 70 volunteer presidents or chairpersons of nonprofit organizations who served various organizations at various times during the past twenty years, who managed an annual operating budget of $25,000 or more, and whose nonprofit organizations were either located in the City of Great Falls or Cascade County, Montana. The subjects were either current or past presidents or chairpersons of volunteer organizations who had served in this capacity anytime between January 1, 1974 and when the data were gathered.

Summary of Findings

The research questions were answered by utilizing two inventory instruments and a researcher developed questionnaire. The inventory instruments utilized were the Decision Style Inventory (DSI) found at Appendix B and the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) found at Appendix C. The questionnaire (Appendix A) gathered relevant information for this study such as participant's gender, age, volunteer leadership experience, and number of years of formal education. The questionnaire also collected the names of the nonprofit organizations (Appendix D) that were represented in this study, their annual operating budgets, and other relevant data utilized by the researcher. A discussion of the five research questions and conclusions drawn from the findings follows.
Research Questions

1. What learning strategies are utilized by presidents or chairpersons of volunteer organizations?

The largest percentage of participants (40%) scored highest on the resource management component of SKILLS. The five highest mean scores for learning strategies were planning (from the metacognition component of SKILLS), attention (from the metamotivation component of SKILLS), human resources (from the resource management component of SKILLS), generating alternatives (from the critical thinking component of SKILLS), and critical use of resources (from the resource management component of SKILLS). The remaining SKILLS components where individuals scored highest by average were metamotivation (24%), memory (24%), metacognitive (7%), and critical thinking (4%). Specifically the learning strategies of planning the learning, attention to the learning, using human resources, generating alternatives, and critical use of resources were the most frequently used.

2. What decision styles are utilized by presidents or chairpersons of volunteer organizations?

The largest percentage of participants (30%) were classified as having the behavioral decision style. The remaining percentages by group were directive (27%), analytical (23%), and conceptual (20%).

3. Is there a relationship between the learning strategies and the decision styles utilized by presidents or chairpersons of volunteer organizations?
Utilizing Pearson $r$ method, the relationship between learning strategies and decision styles was not statistically significant. Only one correlation value out of 117 calculations exceeded .30 and it was only .38. The applicable comparison table value was .2319 at the researcher selected level of significance of .05 for 68 degrees of freedom.

However, utilizing the multivariate approach of two-group discriminant analysis, three variables provided the greatest discrimination between the two groups of those that were classified as typical leaders versus not typical leaders. The three identified variables were the learning strategies of external memory aids, metacognitive adjusting, and testing assumptions.

This discriminant analysis successfully predicted or classified participants into either the typical leaders or not typical leaders group with 73% accuracy, which was 23% above the fifty-fifty chance placement of a participant into a group.

4. Do presidents or chairpersons of volunteer organizations use different learning strategies and decision styles based on their age, education, experience, or gender?

Utilizing the Pearson $r$ method, the relationship between utilization of different learning strategies and decision styles based on age, education, experience, and gender was not statistically significant. None of the demographic variables of age, education, experience or gender correlated values out of 117 calculations exceeded .30. The applicable comparison table value was .2319 at the researcher selected level of significance of .05 for 68 degrees of freedom.
5. Are presidents or chairpersons of volunteer organizations typical leaders according to their Decision Style Inventory scores?

Dividing the participants into two groups based on their Decision Style Inventory combined analytical and conceptual total scores produced 25 (36%) in the typical leaders group (those with 170 or higher scores) and 45 (64%) in the not typical leaders group (those below 170 scores). Therefore, approximately one-third (36%) are considered typical leaders. The combination of the analytical and conceptual styles with a score of 170 or higher describes the pattern typical of a senior executive or leader for the population who have taken the Decision Style Inventory.

Other Research Issues

Additional information was also gathered during this study by the researcher. A discussion of these issues follows. Some of the findings are repeated in this section to help establish researcher conclusions.

There appeared to be an under-representation of females in the volunteer leader ranks. For example, there were 42 male (60%) and 28 female (40%) executive volunteer leaders that took part in this study. Eighteen of these female participants all had been presidents of the same "all women" organization. Therefore, of the 52 remaining participants representing co-gendered organizations only 10 were female for a total of 19%. Interestingly, females
represented a larger percentage (40%) than did males (33%) of those participants classified as typical leaders.

The nonprofit organizations represented ranged in annual operating budget size from $25,000 to $140,000,000. The average annual operating budget for all the organizations in the study was $3,613,139. There were 19 nonprofit organizations that had an annual operating budget that was greater than $1,000,000; however, only one female leader was identified in this group. There appeared to be an under-representation of female leaders in the more responsible volunteer leader positions.

A total of 58 (83%) of the participants had completed post-secondary education. The types and percentages of degrees held by the participants were high school diplomas 12 (17%), associate degrees 1 (1%), baccalaureate degrees 32 (46%), masters degrees 14 (20%), juris doctorates 10 (14%), and doctorate degrees 1 (1%). The average number of years of formal education for all participants combined was 16.6 years. The level of formal education for the typical leaders group was 17.1 years while the level of formal education for the not typical leaders group was 16.4 years. This comparison shows that the typical leaders group overall has more formal education than the not typical leaders group; however, in general volunteer leaders are well educated.

The number of years that the participants had served as chairpersons and/or presidents ranged from 1 to 20 years. The average number of years of volunteer leadership for all participants combined was 3.5 years. The level of
volunteer leadership experience for the typical leaders group was 4.2 years while the level of volunteer leadership experience for the not typical leaders group was 3.1 years. This comparison shows that the typical leaders group overall has more volunteer leadership experience than the not typical leaders group.

The volunteer leader questionnaire showed that a large percentage of participants (76%) perceived that they never, seldom, or sometimes received leadership training from their volunteer organizations. Conversely, a similar percentage of participants (77%) perceived that they had sometimes, often, or very often received organizational or mission training from their volunteer organizations. This researcher is uncertain why volunteer organizations place more emphasis on organizational training than on leadership training. Since 64% of this study's participants were classified as not typical leaders, there appears to be an important need to provide more emphasis on leadership training.

The responses to the question "Why did you accept the position of chairperson/president?" were grouped by the researcher into three broad categories. The categories were as follows: those who felt they could make a difference and wanted the challenge (20% or 29%); those who felt an obligation or that were committed to the cause or service offered by the organization (23% or 33%); and the largest group, those who were either asked or elected to serve and had an interest in the mission of the organization (26% or 38%). The implication here is that many of the leaders surveyed were simply asked to serve.
Conclusions

The findings from this study hold numerous implications for volunteer organizations, individual volunteers, communities, and potential future research projects. The following conclusions were reached by the researcher regarding this study.

Characteristics of Volunteer Leaders

The characteristics of the volunteer leaders in this study that are more typical of leaders throughout the nation, or what this researcher termed as "leadership aligned" individuals, are distinguishable from the other volunteer leaders in this study. This "leadership aligned" individual is better educated, has more volunteer leadership experience, has greater fiscal responsibilities, deals better with ambiguity and uncertainty, and is more likely to have a vision of the future. The "leadership aligned" individual is a communicator typified by their need to freely express themselves as well as allowing others the same opportunities, a networker who needs to bounce ideas off of others and hear their opinions, and an empowerer of people who works to provide the resources required to achieve missions, visions, and goals.

Females appear to suffer unwarranted discrimination from volunteer organizations. Females appear to be under-represented in the volunteer leader ranks. Organizations that had female volunteer leaders tended to be financially smaller than the ones where males were the responsible volunteer leaders.
Overall, female volunteer leaders had less fiscal responsibility and fewer positions of authority than their male counterparts despite a greater percentage of females being "leadership aligned."

Volunteer leaders are supportive, responsible individuals who willingly accept leadership positions when they are asked to serve, they feel an obligation or are committed to a cause or service offered by the organization, or they feel they can make a difference and want the challenge.

**Training of Volunteer Leaders**

Nonprofit organizations are generally not providing leadership training in the form of adult education for their volunteer leaders. An organization's success or failure, as measured in quality and excellence standards, depends upon education and training of its leaders. The nonprofit organizations that provided their volunteer leaders with training directed this training more towards organizational training than to leadership training. Only one-third (36%) of the volunteer leaders in this study were "leadership aligned." Nonprofit organizations have highly educated volunteer leaders who are accustomed to learning and the pursuit of education as evidenced by the numbers and types of advanced degrees they hold as a result of formal education.

**Learning Strategies of Volunteer Leaders**

Typical leaders are more apt to adjust the learning process. The learning strategies that provided the most influence on typical volunteer leaders included
external aids, adjusting the learning process, and evaluating the assumptions. These learning strategies are components of the skills categories of memory (external aids), metacognition (adjusting), and critical thinking (assumptions) and are all significant to the "leadership aligned" individual. These individuals do not need, or depends less on, external aids such as lists, reminders, and displays to get the job done. They think more about adjusting their strategies during tasks, changing plans if required, and keeping track of where they are during the task. They are more likely, through testing of assumptions, to keep an open mind, compare what they have learned to help make decisions, think of other possibilities, and challenge beliefs.

Relationship between Learning Strategies and Decision Styles of Volunteer Leaders

Decision styles and learning strategies are complex issues. To adequately compare them requires thoughtful evaluation that may not be possible through scientific or mathematical models or methods. Statistically, through correlation, there were no patterns that formally tied decision styles to learning strategies. The demographic variables of age, formal education, volunteer leadership experience, and gender did not statistically relate to the volunteer leader's decision style nor their learning strategies. However, utilizing discriminant analysis, the learning strategies of external aids, adjusting the learning process, and testing assumptions all contributed to differentiating between typical leaders and not typical leaders, and it also helped to describe the characteristics of the "leadership aligned"
individual. Common ground concerns how both are learned activities and situation affected. How individuals learn to develop their decision styles and learning strategies, and ultimately a situation's success or failure, depends on the individual's exposure to knowledge, education, and interpersonal interaction. Organizations have the potential to influence these exposures to their leaders.

**Recommendations**

Based on the findings of this study the researcher makes the following recommendations.

**Nonprofit Organizations**

1. Nonprofit organizations need to place high priority on the selection procedures that they utilize to place their chairpersons/presidents. It is recommended that the Decision Style Inventory be utilized as a tool to aid in the identification of candidates who display characteristics which are similar to typical leaders to fill these positions. A low percentage of the volunteer leaders (36%) in this study were found to be typical leaders based on Decision Style Inventory results.

2. Nonprofit organizations should determine through the use of a device such as the Self-Knowledge Inventory of Lifelong Learning Strategies (SKILLS) the learning strategies that their chairpersons/presidents are utilizing. This would allow for providing methods of training that would enhance the success of the
learning situation. Knowing about how people learn provides an opportunity to model training according to individual preferences.

3. Nonprofit organizations need to ensure that there are open and accessible communication channels available for all members of their system, especially their leaders. This study determined that "leadership aligned" individuals openly communicate their ideas and compare them with others' ideas. Communication was found to be one of the essential keys to excellence and quality organizations.

4. Nonprofit organizations need to ensure that their young volunteers are given responsibilities that help them understand and experience leadership. This study determined that the more leadership experience an individual had, the more likely they were to be "leadership aligned." Options include internship programs that expose young volunteers to seasoned leaders and exemplary figures, mentoring with current or past leaders, and networking with other volunteer organizations. Networking was found to be one of the essential keys to excellence and quality organizations.

5. Nonprofit organizations need to ensure that they recognize the need for and place emphasis on leadership training. Training is emphasized as an important function of excellence and quality organizations. The majority (76%) of the volunteer leaders of this study perceived that they never, seldom, or sometimes received leadership training from their volunteer organizations. Organizations can
work with their leaders to determine the type and amount of leadership training needed.

6. Nonprofit organizations should ensure that they utilize an adequate recognition program for their volunteer leaders. During the review of literature on volunteerism it was found that some of the reasons people volunteer were to "get ahead," to "make contacts," and to "fill their lives," all of which are served by adequate recognition programs. Additionally, the "leadership aligned" individual strives for achievement and requires recognition, praise, and constructive feedback.

Volunteer Leaders

1. Volunteer leaders need to optimize communications, networking, and empowerment. The "leadership aligned" individual communicates through free expression, networks ideas with others, and empowers people with the responsibility and resources required to achieve missions, visions, and goals. These three factors were also found to be the essential keys to excellence and quality organizations.

2. Volunteer leaders need to create the conditions and a climate of challenge, expectation, and opportunity to help bring potential and promising young leaders along. The "leadership aligned" individual has more exposure and more volunteer leadership experience. This individual also deals better with ambiguity and uncertainty, and is more likely to have a vision of the future. This
recommendation is also based on the idea of networking which was found to be one of the essential keys to excellence and quality organizations.

3. Individuals need to continue their educations and to accept the responsibilities and duties of volunteer leadership. Individuals should openly communicate their willingness to serve as volunteer leaders. The literature review demonstrated that volunteerism is essential to society and that citizens have a responsibility for civic involvement.

Communities

1. Communities need to encourage and sponsor legislation that supports community volunteer programs. Community support along with a favorable environment will provide more opportunities for additional individuals to be added to the ranks of volunteerism.

Recommendations for Further Studies

Based on this study of volunteer leaders, the researcher has identified four topics which warrant further study.

First, it is recommended that research be conducted for the purpose of determining what selection processes are utilized by nonprofit organizations and to help discover ways for nonprofit organizations to enhance their searches for suitable leadership.
Second, it is recommended that adult education researchers study the learning methods utilized by successful volunteer leaders, specifically when the training is being provided by the volunteer organization.

Third, it is recommended that research be conducted to determine the extent of and reasons for female under-representation either by position or by responsibility in volunteer organizations. Additionally, if there is female under-representation, a study could be undertaken to recommend ways to change this problem.

Lastly, it is recommended that adult education researchers look into the adequacy of civic and leadership education programs that are offered in various communities. Ideas for education programs do not have to be tied to a specific degree or higher education degree. Examples might include offering credit for everyday, real-life experiences that are involved with civic and leadership programs such as voter registration seminars, recycling programs, community government meetings, and wildlife preservation initiatives.


Charitable giving tops $100 billion. (1993, December 5). *Great Falls Tribune*, p. 1G.


Shirk, J. C. (1983). Relevance attributed to urban public libraries by adult learners: A case study and content analysis of 81 interviews. (Unpublished doctoral dissertation, Texas A&M University, College Station, TX)


APPENDIX A

VOLUNTEER LEADER QUESTIONNAIRE
VOLUNTEER LEADER QUESTIONNAIRE

NAME _______________________________ AGE _____ GENDER ______

ADDRESS ____________________________ HIGHEST DEGREE EARNED ______________

CAREER ______________

OCCUPATION ____________________

PHONE H __________________________

VOLUNTEER OCCUPATION ______________

W __________________________

NAME OF VOLUNTEER ORGANIZATION(S) FOR WHICH YOU HAVE SERVED AS THE CHAIRPERSON/PRESIDENT:

____________________________________________________________________

____________________________________________________________________

NAME OF VOLUNTEER CHAIRPERSON/PRESIDENT THAT SERVED PRIOR TO YOU:

____________________________________________________________________

APPROXIMATE SIZE OF ANNUAL OPERATING BUDGET . .  _________________

TOTAL NUMBER OF YEARS YOU HAVE SERVED AS A VOLUNTEER CHAIRPERSON AND/OR PRESIDENT .................

WHY DID YOU ACCEPT THE POSITION OF CHAIRPERSON/PRESIDENT?

____________________________________________________________________

____________________________________________________________________

CIRCLE THE APPROPRIATE RESPONSE:

I RECEIVED LEADERSHIP TRAINING FROM MY VOLUNTEER ORGANIZATION

NEVER  Seldom  Sometimes  Often  Very Often

I RECEIVED ORGANIZATIONAL/MISSION TRAINING FROM MY VOLUNTEER ORGANIZATION

NEVER  Seldom  Sometimes  Often  Very Often

HOW MANY YEARS OF FORMAL EDUCATION HAVE YOU COMPLETED

10  11  12  13  14  15  16  17  18  19  20

HS  AS  BA/S  MS  D
APPENDIX B

DECISION STYLE INVENTORY
**DIRECTIONS AND ANSWER SHEET FOR DECISION STYLE INVENTORY**

First: Read the question and place an "8" next to the answer that best represents you. If several strike you as fitting your personality, pick the one that feels right or flashes into your mind first. Then place a "4" next to the answer that is your second choice. A "2" goes next to your third choice. Finally, a "1" is placed next to your last choice -- the response that is least like you. Your responses should reflect what you prefer to do, not what you believe is correct or desirable. Remember, there are no "right" or "wrong" answers.

Second: Repeat the first step for questions 2 thru 20.

Third: When you have answered all the questions, total up the numbers in each of the four columns. (The total of the four scores should be 300. If you get a different total, check your answers to see that you didn't make a mistake.)

Fourth: Transfer the column totals to the corresponding positions below. Add both numbers across and down to fill the totals section.

<table>
<thead>
<tr>
<th>(column 2)</th>
<th>(column 3)</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Analytical</td>
<td>Conceptual</td>
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<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
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<tr>
<td>+</td>
<td>+</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>(column 1)</th>
<th>(column 4)</th>
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</thead>
<tbody>
<tr>
<td>Directive</td>
<td>Behavioral</td>
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<td>_____</td>
<td>_____</td>
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<tr>
<td>_____</td>
<td>_____</td>
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</tbody>
</table>

Totals 300
### Decision Style Inventory

1. **My prime objective is to:**
   - Have a position with status
   - Be the best in my field
   - Achieve recognition for my work
   - Feel secure in my job

2. **I enjoy jobs that:**
   - Are technical and well defined
   - Have considerable variety
   - Allow independent action
   - Involve people

3. **I expect people working for me to be:**
   - Productive and fast
   - Highly capable
   - Committed and responsive
   - Receptive to suggestions

4. **In my job, I look for:**
   - Practical results
   - The best solutions
   - New approaches or ideas
   - Good working environment

5. **I communicate best with others:**
   - On a direct one-to-one basis
   - In writing
   - By having a group discussion
   - In a formal meeting

6. **In my planning I emphasize:**
   - Current problems
   - Meeting objectives
   - Future goals
   - Developing people's careers

7. **When faced with solving a problem, I:**
   - Rely on proven approaches
   - Apply careful analysis
   - Look for creative approaches
   - Rely on my feelings

8. **When using information, I prefer:**
   - Specific facts
   - Accurate and complete data
   - Broad coverage of many options
   - Limited data that are easily understood

9. **When I am not sure about what to do, I:**
   - Rely on intuition
   - Search for facts
   - Look for a possible compromise
   - Wait before making a decision

10. **Whenver possible, I avoid:**
    - Long debates
    - Incomplete work
    - Using numbers of formulas
    - Conflict with others

11. **I am especially good at:**
    - Remembering dates and facts
    - Solving difficult problems
    - Seeing many possibilities
    - Interacting with others

12. **When time is important, I:**
    - Decide and act quickly
    - Follow plans and priorities
    - Refuse to be pressured
    - Seek guidance or support

13. **In social settings, I generally:**
    - Speak with others
    - Think about what is being said
    - Observe what is going on
    - Listen to the conversation

14. **I am good at remembering:**
    - People's names
    - Places we met
    - People's faces
    - People's personalities

15. **The work I do provides me:**
    - The power to influence others
    - Challenging assignments
    - Achieving my personal goals
    - Acceptance by the group

16. **I work well with those who are:**
    - Energetic and ambitious
    - Self-confident
    - Open-minded
    - Polite and trusting

17. **When under stress, I:**
    - Become anxious
    - Concentrate on the problem
    - Become frustrated
    - Am forgetful

18. **Others consider me:**
    - Aggressive
    - Disciplined
    - Imaginative
    - Supportive

19. **My decisions typically are:**
    - Realistic and direct
    - Systematic or abstract
    - Broad and flexible
    - Sensitive to the needs of others

20. **I dislike:**
    - Losing control
    - Boring work
    - Following rules
    - Being rejected

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APPENDIX C

SELF-KNOWLEDGE INVENTORY OF LIFELONG LEARNING STRATEGIES
First: Read the four scenes dealing with real-life learning situations.

Second: Turn to the pages for these scenes that describe various learning strategies that you might use in these situations. For each scene, select the 5 learning strategies that you would Definitely Use, 5 that you might Possibly Use, and 5 that you would Not Likely Use. Enter the number for each of these 5 items in the proper box below.

<table>
<thead>
<tr>
<th>Fund Raising Event</th>
<th>Volunteer Work</th>
<th>Recruiting Leaders</th>
<th>Letter to the Editor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely Use</td>
<td>Definitely Use</td>
<td>Definitely Use</td>
<td>Definitely Use</td>
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<tr>
<td>Possibly Use</td>
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<tr>
<td>Not Likely Use</td>
<td>Not Likely Use</td>
<td>Not Likely Use</td>
<td>Not Likely Use</td>
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</tbody>
</table>

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FUND RAISING EVENT

Your volunteer organization suddenly finds itself temporarily out of money at a time when some operating cash is needed. You have been appointed as a one person committee to come up with a quick fund raising idea to generate enough cash to hold the organization over for a short period of time. How likely are you to use the following strategies in learning how to select the proper fund raising activity?

VOLUNTEER WORK

You have recently moved to a new community and have decided to become a better citizen by doing some volunteer work. You don’t know much about the community volunteer agencies so you decide to learn about the purpose and missions of the various organizations to help you pick the one to which you will volunteer your free time. How likely are you to use the following strategies in learning about these organizations?

RECRUITING LEADERS

Your best friend has been asked to help recruit leaders for a group that is going to investigate the recreation and park services in your community. You have volunteered to help study what good leaders are like and to recruit good leaders. How likely are you to use the following strategies in learning how to recruit leaders?

LETTER TO EDITOR

A lot of people have been concerned about an issue affecting your neighborhood. Two of your neighbors want you to help them put together a letter to the editor of your local newspaper that would state your side of the case. You agree to help plan the letter, but you realize that you first must know more about this issue and about the attitude of others toward it. How likely are you to use the following strategies in learning about the issue and in preparing an effective letter to the editor?
FUND RAISING EVENT

Your volunteer organization suddenly finds itself temporarily out of money at a time when some operating cash is needed. You have been appointed as a one person committee to come up with a quick fund raising idea to generate enough cash to hold the organization over for a short period of time. How likely are you to use the following strategies in learning how to select the proper fund raising activity?

Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the Definitely Use box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Thinking through what you need to know to find the best way to proceed
2. Deciding to focus on finding the best fund raising approach rather than simply choosing one used before
3. Checking to see if there is a record of previous fund raising activities used by the group
4. Finding out if your ideas match the ideas of the person assigning the task to you
5. Thinking about how your efforts will aid in the survival of the organization and its mission
6. Checking with other agencies who have recently completed successful fund raising activities
7. Checking to see if there are other things you need to learn to decide on the best plan
8. Confidently proceeding to completion of the task knowing you will be successful because of past success
9. Mentally picturing each step of a plan to make sure you remember all that a plan includes
10. Working with other fund raising individuals to check your ideas and opinions in a networking manner
11. Writing down a list of ideas to reinforce your memory
12. Thinking about a non-traditional or unusual way to conduct fund raising
13. Recalling similar task you have worked on so you can avoid mistakes
14. Deciding when you have gathered enough information to settle on a plan
15. Putting together a tentative plan realizing that adjustments may be required later
You have recently moved to a new community and have decided to become a better citizen by doing some volunteer work. You don't know much about the community volunteer agencies so you decide to learn about the purpose and missions of the various organizations to help you pick the one to which you will volunteer your free time. How likely are you to use the following strategies in learning about these organizations?

**Directions:** Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the *Definitely Use* box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the *Possibly Use* box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the *Not Likely Use* box of the answer sheet.

1. Preparing a plan for overviewing volunteer groups in the community
2. Scheduling time to find information and review it to help you make your decision
3. Checking the newspaper and local news to determine what volunteer organizations are active
4. Finding out if your assumptions about how local groups operate are accurate
5. Imagining the rewards of working with the "right" group of volunteers
6. Asking yourself if the information you gather is accurate or if it is aimed at attracting volunteers
7. Thinking about how your concern to help others might influence your learning
8. Feeling confident that you can find the best volunteer organization for your talent
9. Organizing the major points you want to know about each agency
10. Having discussions with others to evaluate your opinions about volunteer work
11. Listing the questions that you want to remember to ask about each volunteer organization
12. Listing your various alternatives including advantages of different volunteer organizations
13. Recalling previous experiences you had in volunteering
14. Revising your learning plans if you are not finding an acceptable method to make your choice
15. Experimenting with a volunteer organization to see if it meets your expectations and if it doesn't work out then changing to a different organization later

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RECRUITING LEADERS

Your best friend has been asked to help recruit leaders for a group that is going to investigate the recreation and park services in your community. You have volunteered to help study what good leaders are like and to recruit good leaders. **How likely are you to use the following strategies in learning how to recruit leaders?**

**Directions:** Select the 5 strategies from the following list of 15 that you feel you would definitely use and place the number of these strategies on the lines in the *Definitely Use* box of the answer sheet. Select 5 other strategies that you might possibly use and place the number of these strategies in the *Possibly Use* box of the answer sheet. Select 5 other strategies that you would least likely use and place the number of these strategies on the lines in the *Not Likely Use* box of the answer sheet.

<table>
<thead>
<tr>
<th>1. Asking yourself what specifically needs to be done in your community before identifying the most appropriate leaders</th>
<th>8. Feeling confident you will be able to convince those you identify as good leaders to volunteer their services</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Reminding yourself to focus on learning about leadership rather than worrying about being able to talk people into volunteering</td>
<td>9. Making up a word or phrase to remind yourself of the things you want to ask potential leaders</td>
</tr>
<tr>
<td>3. Calling the Chamber of Commerce in your town to see if they have a community leadership group or program from which you could get ideas</td>
<td>10. Talking with community leaders to test out your opinions on the qualities of a good leader</td>
</tr>
<tr>
<td>4. Reviewing your decisions to see if friendship for certain people has influenced the suggestions you have made</td>
<td>11. Using a notebook or note cards to keep track of ideas that you want to remember</td>
</tr>
<tr>
<td>5. Thinking about how your efforts will help your community have good recreation facilities</td>
<td>12. Thinking of many different ways of recruiting good leaders</td>
</tr>
<tr>
<td>6. Examining closely the qualifications of those suggested as leaders by interviewing several people who have worked with them</td>
<td>13. Recalling similar experiences you have had in selecting leaders so you can remember what worked best</td>
</tr>
<tr>
<td>7. Reflecting back to see if you are sticking with your learning plan</td>
<td>14. Asking yourself if there are any traits of good leaders about which you are still confused</td>
</tr>
<tr>
<td></td>
<td>15. Thinking through what could be done if those who are selected turn out to be poor leaders</td>
</tr>
</tbody>
</table>
LETTER TO EDITOR

A lot of people have been concerned about an issue affecting your neighborhood. Two of your
eighbors want you to help them put together a letter to the editor of your local newspaper that
would state your side of the case. You agree to help plan the letter, but you realize that you first
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Directions: Select the 5 strategies from the following list of 15 that you feel you would definitely
use and place the number of these strategies on the lines in the Definitely Use box of the answer
sheet. Select 5 other strategies that you might possibly use and place the number of these strategies
in the Possibly Use box of the answer sheet. Select 5 other strategies that you would least likely use
and place the number of these strategies on the lines in the Not Likely Use box of the answer sheet.

1. Deciding what methods work best for you in analyzing issues
2. Focussing on learning about the issues rather than worrying if you can write an effective letter
3. Reading previous letters to the editor to clarify your position
4. Checking the arguments of those opposing your position to pick out inconsistencies in your ideas
5. Thinking of how the letter could improve the cooperative spirit within your neighborhood
6. Checking with someone outside the neighborhood who knows a lot about such issues
7. Reflecting back to see if you are sticking with your plan of learning
8. Confirming your belief that a statement of your position in a letter to the editor will bring about positive change on the issue
9. Forming a mental outline of the points you hear in discussions that you want to remember until you get a chance write them down
10. Taking time to test your ideas out on people whose opinions differ from yours
11. Keeping a list of the points you want to get more information about before you write the letter
12. Thinking about numerous possible solutions that could be used to address this issue
13. Recalling similar experiences people have had in writing letters to the editor
14. Getting some feedback on your ideas before you sent the letter to the newspaper
15. Thinking about what will happen if the letter is published by the editor

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SCORE SHEET FOR SKILLS

Directions: To compute your score on SKILLS, enter the values for each scene separately on the proper blank lines below. Enter 3 points for each item in the Definitely Use box, 2 for each item in the Possibly Use box, and 1 for each item in the Not Likely Use box. To find your score for each of the 15 strategies, add the scores across the page and enter this sum in the column marked Total. To find your general scores, transfer these totals to the boxed area.

<table>
<thead>
<tr>
<th>Scene</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
</tr>
</thead>
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<td>1.</td>
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<td>4.</td>
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<td>5.</td>
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<td>6.</td>
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<td>12.</td>
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<tr>
<td>15.</td>
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</tbody>
</table>

METACOGNITION
- Planning (1)
- Monitoring (7)
- Adjusting (14)
- Total

METAMOTIVATION
- Attention (2)
- Reward/Enjoy (5)
- Confidence (8)
- Total

MEMORY
- Organization (9)
- External (11)
- Application (13)
- Total

CRITICAL THINKING
- Assumptions (4)
- Alternatives (12)
- Cond.Accept (15)
- Total

RESOURCE MANAGEMENT
- Identify (3)
- Critical Use (6)
- Human (10)
- Total
APPENDIX D

LIST OF ORGANIZATIONS INCLUDED IN THE STUDY
Table 15. List of Organizations Included in the Study.

<table>
<thead>
<tr>
<th>Name of Organization</th>
<th>Number of Participants</th>
<th>Percentage of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior League of Great Falls</td>
<td>18</td>
<td>16%</td>
</tr>
<tr>
<td>Great Falls Chamber of Commerce</td>
<td>10</td>
<td>10%</td>
</tr>
<tr>
<td>Red Cross - Big Sky Chapter</td>
<td>7</td>
<td>6%</td>
</tr>
<tr>
<td>United Way of Cascade County</td>
<td>6</td>
<td>5%</td>
</tr>
<tr>
<td>Big Brothers and Big Sisters of Great Falls</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>Great Falls Public Library</td>
<td>4</td>
<td>4%</td>
</tr>
<tr>
<td>United Church of Christ 1st Congregational</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Great Falls Advertising Federation</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Great Falls YWCA</td>
<td>3</td>
<td>3%</td>
</tr>
<tr>
<td>Great Falls Symphony Association</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Paris Gibson Square Museum of Art</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Episcopal Church of Incarnation</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Charlie Russell Museum</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Great Falls Public School Board</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Great Falls Airport Authority</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Giant Springs Heritage State Park Commission</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Providence Center</td>
<td>2</td>
<td>2%</td>
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</tbody>
</table>
Table 15. Continued.

<table>
<thead>
<tr>
<th>Name of Organization</th>
<th>Number of Participants</th>
<th>Percentage of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Montana Deaconess Hospital</td>
<td>2</td>
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</tr>
<tr>
<td>Four Seasons Sports Foundation</td>
<td>2</td>
<td>2%</td>
</tr>
<tr>
<td>Sun Prairie Homeowners Association</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Lewis and Clark Interpretive Association</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Alliance for Youth</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Great Falls Area Sister Cities Assn.</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>AFS Exchange Student Program</td>
<td>1</td>
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</tr>
<tr>
<td>Great Falls Community Housing Resource Board</td>
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<td>1%</td>
</tr>
<tr>
<td>Great Falls Kiwanis Club</td>
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</tr>
<tr>
<td>Great Falls Children Receiving Home</td>
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</tr>
<tr>
<td>Great Falls Memorial Youth Center</td>
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<tr>
<td>Great Falls Downtown Business Council and City Center Association</td>
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<tr>
<td>Military Affairs Committee</td>
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<tr>
<td>Philanthropic Education Organization</td>
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<tr>
<td>Portage Route Chapter</td>
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<tr>
<td>Great Falls Centennial Committee</td>
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</tr>
<tr>
<td>Charlie Russell Auction</td>
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<td>1%</td>
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<tr>
<td>Montana Chorale</td>
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</tbody>
</table>
Table 15. Continued.

<table>
<thead>
<tr>
<th>Name of Organization</th>
<th>Number of Participants</th>
<th>Percentage of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Faith Lutheran Church</td>
<td>1</td>
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</tr>
<tr>
<td>Montana Association of Churches</td>
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</tr>
<tr>
<td>Cascade County 4H Foundation</td>
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<tr>
<td>Great Falls Library Foundation</td>
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<td>1%</td>
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<tr>
<td>Episcopal Church Memorial Foundation</td>
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<td>1%</td>
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<tr>
<td>Great Falls Prerelease</td>
<td>1</td>
<td>1%</td>
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<tr>
<td>Montana Grain Growers Association</td>
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<td>Montana Council Boy Scouts</td>
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<tr>
<td>Salvation Army</td>
<td>1</td>
<td>1%</td>
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<tr>
<td>March of Dimes</td>
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<tr>
<td>Quality Life Concepts</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>United Church of Christ 1st Congregational Memorial Foundation</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>CMR Museum Cookbook Committee</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>University of Montana Foundation</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Columbus Hospital</td>
<td>1</td>
<td>1%</td>
</tr>
<tr>
<td>Totals 50 organizations</td>
<td></td>
<td>*110</td>
</tr>
</tbody>
</table>

*The total number of participants does not equal 70 because some participants represented multiple organizations.