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**ANALYSIS OF ARMY RESERVE OFFICER TRAINING CORPS CADET  
BEHAVIORAL LEADERSHIP AND DEVELOPMENT**

THESIS

Matthew S. Woodruff, Captain, USA

AFIT/GLM/ENV/04M-01

**DEPARTMENT OF THE AIR FORCE  
AIR UNIVERSITY**

**AIR FORCE INSTITUTE OF TECHNOLOGY**

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**Wright-Patterson Air Force Base, Ohio**

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The views expressed in this thesis are those of the author and do not reflect the official policy or position of the United States Army, United States Air Force, Department of Defense, or the United States Government.

AFIT/GLM/ENV/04M-01

ANALYSIS OF ARMY RESERVE OFFICER TRAINING CORPS CADET  
BEHAVIORAL LEADERSHIP AND DEVELOPMENT

THESIS

Presented to the Faculty

Department of Operational Sciences

Graduate School of Engineering and Management

Air Force Institute of Technology

Air University

Air Education and Training Command

In Partial Fulfillment of the Requirements for the  
Degree of Master of Science in Logistics Management

Matthew S. Woodruff, BS

Captain, USA

March 2004

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AFIT/GLM/ENV/04M-01

ANALYSIS OF ARMY RESERVE OFFICER TRAINING CORPS CADET  
BEHAVIORAL LEADERSHIP AND DEVELOPMENT

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## **Abstract**

The United States Army is continually looking for ways to improve the training of its leaders. *FM 22-100, Army Leadership: Be, Know, Do* (1999), provides the foundation for the Army's leadership training. Its goal is to train leaders who can both accomplish the mission and take care of soldiers and their families.

This project investigates how individuals' leadership opinions may vary according to their year in the Reserve Officer Training Corps program and also compared to non-ROTC students of similar academic standing. Does the leadership training implemented in ROTC effect change in leadership opinions from the MS III (junior) to the MSIV (senior) cadets and do these opinions coincide with the Army's desires? Do the opinions stated by ROTC cadets differ from non-ROTC students? And finally, do these opinions differ by university attended?

The leadership behaviors being investigated are those defined by Fleishman (1953, 1957): consideration and initiating structure. These leadership behaviors mirror the Army's "Mission First, People Always" motto. Taking care of soldiers and their families is consideration, while accomplishing the mission is initiating structure. The Leadership Opinion Questionnaire developed by Fleishman (1953), contains 40 questions (20 consideration, 20 initiating structure) measuring both elements. Both elements are independent, which means a leader can have varying levels of each (Fleishman, 1989).

## **Acknowledgments**

I would like to first thank my advisor, Dr. Jan P. Muczyk, for his enduring patience, understanding, and instruction throughout this thesis process. His knowledge and insight proved to be invaluable. I am thankful for Lieutenant Colonel Stephen P. Brady; he was a sounding board for ideas and got my feet planted on the right path. I am also thankful to Major Danny Holt who took the time to assist me on this endeavor, even though he was not directly involved in my thesis.

I would also like to thank the United States Army's Cadet Command, specifically 7<sup>th</sup> Brigade. The cadets and cadre of the following institutions have contributed greatly to the success of this research: Bowling Green State University, Capital University, Eastern Kentucky University, The Ohio State University, the University of Dayton, the University of Toledo, and Wright State University. Also, I would like to thank Urbana University for its tremendous contributions to this research.

I want to thank my wife and children.. I appreciate your patience, tolerance, and especially your love. Without the four of you, this day would not have come. You are truly a blessing in my life.

Finally, I would like to thank God for giving me the opportunity to lead and the ability to accomplish the mission and take care of people. Thank you for watching over me and giving me an opportunity to learn.

CPT Matthew S. Woodruff

## Table of Contents

	Page
Abstract.....	iv
Acknowledgments.....	v
List of Figures.....	viii
List of Tables .....	ix
I. Introduction .....	1
Chapter Overview.....	1
General Issue .....	1
Specific Problem .....	3
Theoretical Basis for Research.....	4
Hypotheses .....	4
Definitions .....	5
Overview of the Paper .....	6
II. Literature Review.....	7
Chapter Overview.....	7
Introduction .....	7
Leadership Defined .....	8
Trait Approach.....	9
Behavior Approach.....	9
Power-Influence Approach.....	11
Situational Approach.....	11
Integrative Approach.....	12
The Ohio State Leadership Studies .....	13
Michigan Leadership Studies .....	15
The Managerial Grid .....	16
Army Leadership .....	19
BE, KNOW, DO.....	20
Army Leadership Levels .....	23
Military Studies .....	25
Chapter Summary .....	26
III. Methodology .....	27
Chapter Overview.....	27
Introduction .....	27



	Page
Population.....	28
Sample .....	29
The Survey Instrument .....	29
Administration of the Questionnaire .....	31
Experimental Design .....	31
Statistical Analyses.....	32
Chapter Summary .....	34
 IV. Results.....	 35
Introduction .....	35
Reliability of the Scales.....	35
Means Computations .....	36
Analysis of Variance .....	37
Chapter Summary .....	39
 V. Discussion .....	 40
Chapter Overview.....	40
Hypothesis 1 .....	40
Hypothesis 2 .....	41
Hypothesis 3 .....	41
Hypothesis 4 .....	42
Hypothesis 5 .....	42
Hypothesis 6.....	43
Limitations.....	43
Suggestions for Training Improvement.....	43
Suggestions for Further Research.....	45
 Appendix A.....	 46
 Appendix B .....	 53
 Appendix C .....	 65
 References.....	 67

## List of Figures

Figure	Page
1. Fleishman's representation of consideration vs. structure.....	17
2. The Managerial Grid.....	18
3. Army Leadership Framework.....	20
4. Army Leadership Levels.....	24

## List of Tables

Table	Page
1. Sample Size for Each Demographic Category.....	29
2. Variable Description and Classification .....	30
3. Scale Variable Means, Standard Deviations, and ANOVA Results.....	38
4. Key for LOQ Spreadsheets .....	53

# **ANALYSIS OF ARMY RESERVE OFFICER TRAINING CORPS CADET BEHAVIORAL LEADERSHIP AND DEVELOPMENT**

## **I. Introduction**

*If you want one year of prosperity, grow grain. If you want ten years of prosperity, grow trees. If you want one hundred years of prosperity, grow people.*

*-----Chinese Proverb*

### **Chapter Overview**

This chapter provides a background for the research topic of leadership behaviors and their development in United States Army Reserve Officer Training Corps (ROTC) cadets. It presents the general issue of this research, the specific problem, the theoretical basis for the research, and the hypotheses. This chapter will also briefly describe several key terms.

### **General Issue**

Leadership is one of the most vital assets to a well-functioning military. Military leaders are charged with the welfare of our nation's security and the welfare of its sons and daughters. The military must find ways to train and develop these leaders to be able to accomplish the mission while simultaneously taking care of the soldiers and their families. This is exemplified by the Army motto which states, "Mission First, People Always". These two seemingly competing ideas make Army leadership even more

difficult. There are times when mission accomplishment means loss of life. How do we train and develop these young officers, who lead the small units that fight the battles?

The Army has three sources of commissioning: the United States Military Academy (West Point), ROTC, and Officer Candidate School (OCS). West Point and OCS only produce about one-quarter of the nation's requirement for second lieutenants, while ROTC produces about seventy-five percent. West Point and OCS were eliminated from this study because of the leadership exposure they receive. West Point cadets receive leadership training on a daily basis for four years; and OCS students are enlisted soldiers who have been directly exposed to Army leadership. Because ROTC produces the vast majority of new officers and due to their limited leadership exposure, the focus of this study centers on ROTC cadets.

Army ROTC can be a two-year or four-year program. In the four-year program the cadet will take four years of military science courses and attend the National Advanced Leaders Camp between his/her junior and senior years. The two-year program is for transfer students, veterans, and students who simply didn't take the first two years of courses. All of these except veterans must attend the Army ROTC Leader's Training Course prior to their junior year. These students must then complete the Advanced Course which consists of four military science courses and the National Advanced Leaders Camp (Bolden, 2002; Knapp, 2002; Visconti, 2002a; Visconti, 2002b). ROTC cadets spend anywhere from two to four hours a week in military science classes. The topics of study range from basic military skills through adventure training to military leadership. The limited time available to develop leaders has made this a significant challenge.

The last two years, the Advanced Course, are where the focus of training and development shifts to leadership, management, ethics, problem solving, and officership. “The Advanced Course is designed to teach all knowledge, skills, and attitudes essential for commissioning as a new second lieutenant, and to establish a sound foundation for a career as a commissioned Army officer” (Bolden, 2002; Knapp, 2002; Visconti, 2002a; Visconti, 2002b). Most of the lessons concerning leadership are developed using Field Manual (FM) 22-100, *Army Leadership* (1999).

### **Specific Problem**

The Army has leadership doctrine and manuals that specifically address that doctrine. FM 22-100, *Army Leadership* (1999), is a thorough reference intended to be the basis for leadership development. FM 7-8, *The Infantry Platoon Leaders Guide* (1993), is an in-depth manual that teaches technical and tactical proficiencies of leadership. These manuals, along with military science textbooks, instructor experience, and hands-on training, make up the developmental leadership training within Army ROTC. Is this enough to begin to create the leaders of tomorrow? Are these leaders learning both how to accomplish the mission and take care of the soldiers and their families?

This study will attempt to determine whether Army ROTC cadets differ from non-ROTC college students of similar academic year, and if ROTC cadets differ from the MSIII (junior) year to the MSIV (senior) year. This study assessed the leadership opinions of U.S. Army ROTC cadets and their non-ROTC counterparts using the Leadership Opinion Questionnaire (LOQ; Fleishman, 1957).

## **Theoretical Basis for Research**

This research was based on two similar theories. One was the behavioral leadership research conducted at The Ohio State University, specifically by Edwin A. Fleishman (1957), and the second was the Managerial Grid developed by Robert R. Blake and Jane S. Mouton (1964). Both of these research efforts focused on two related aspects. Blake and Mouton (1964) use concern for production and concern for others, while Fleishman (1957) refers to initiating structure and consideration. These are similar to the Army's mission first and people always. These terms will be defined later in this chapter.

## **Hypotheses**

**The first Null Hypothesis ( $H_{01}$ ):** ROTC cadets and non-ROTC students will score the same on Initiating Structure.

**The second Null Hypothesis ( $H_{02}$ ):** ROTC cadets and non-ROTC cadets will score the same on Consideration.

**The third Null Hypothesis ( $H_{03}$ ):** MSIV and MSIII cadets will score the same on Initiating Structure.

**The fourth Null Hypothesis ( $H_{04}$ ):** MSIV and MSIII cadets will score the same on Consideration.

**The fifth Null Hypothesis ( $H_{05}$ ):** All universities will score the same on Initiating Structure.

**The sixth Null Hypothesis (H<sub>06</sub>):** All universities will score the same on Consideration.

## **Definitions**

Listed below are two definitions of leadership and two dimensions restated in three different ways to provide a common conceptual base for the reader.

1. Leadership involves a process whereby intentional influence is exerted by one person over other people to guide, structure, and facilitate activities in a group or organization (Yukl, 2002: 2).

2. Army leadership is influencing people – by providing purpose, direction, and motivation – while operating to accomplish the mission and improving the organization (Department of the Army, 1999: 1-4).

3. Mission First is focusing on accomplishing the mission.

4. People Always is taking care of your soldiers and their families.

5. Initiating Structure is the leader clearly defines his or her own role and the roles of subordinates toward the attainment of the group's formal goals (Yukl, 2002: 50).

6. Consideration is the leader acting in a friendly and supportive manner, showing concern for subordinates, and looking out for their welfare (Yukl, 2002: 50).

7. Concern for Production is whatever an organization hires people to accomplish such as results, bottom line, performance, profits, or mission (Blake, 1985:10).

8. Concern for People involves trust, respect, understanding and support. These



can be manifest in many different ways: fringe benefits and work conditions (Blake, 1985: 11).

### **Overview of the Paper**

The remainder of this paper is divided into four chapters. Chapter II begins by reviewing existing research literature on leadership. The literature review first describes the prominent leadership theories. It then goes into greater detail into the behavioral theory and the research that was conducted. The chapter also describes Blake and Moutons research regarding the Managerial Grid. It then describes Army leadership. And finally, the chapter presents the proposed model and re-establishes the hypotheses evaluated in this study.

Chapter III (Methodology) begins with a description of the subjects and the administration of the Leadership Opinion Questionnaire. The chapter concludes with a discussion of the statistical techniques employed in the analysis.

Chapter IV (Results) presents and analyzes the results of the regression analysis. The first regression was a multiple linear model while the remaining three were hierarchical regression models.

This paper concludes with a discussion of the findings of the study, the identification and discussion of the limitations of the study, theoretical and practical implications of the study, and recommendations for future research.

## II. Literature Review

*Leadership is not a natural trait, something inherited like the color of eyes or hair...Leadership is a skill that can be studied, learned, and perfected by practice.*

-----*The Noncom's Guide, 1962*

### Chapter Overview

This literature review provides an introduction to leadership, a formal definition of leadership that will be used throughout this study, and a summary of some of the major leadership theories. It then focuses on the behavioral approach and outlines some of the major research conducted to enhance this theory. The chapter then describes Army leadership doctrine and ties it back to the civilian research. It concludes with some military research that has been conducted.

### Introduction

How do leaders convince their followers to do the extraordinary and want to do it? Soldiers to charge into battle with death by their sides. People have been fascinated by the complexities of leadership throughout time. When people think of leadership, they picture great military leaders such as General George S. Patton, charismatic religious leaders such as Gandhi, and bold business leaders such as Jack Welch. What do these leaders possess that makes them effective and inspires others? Researchers have studied the concept of leadership, have tried to define it, and have attempted to determine what makes a leader effective. Simply defining leadership has proven to be a task in itself.

## **Leadership Defined**

Despite numerous studies, finding a universally accepted definition of “leadership” has been nearly impossible. There are nearly as many definitions of leadership as there are researchers. Many of the definitions do, however, have a similar conceptual design. “Most definitions reflect the assumption that it involves a process whereby intentional influence is exerted by one person over other people to guide, structure, and facilitate activities and relationships in a group or organization” (Yukl, 2002: 2).

Due to the Army theme of this paper, I will use the Army’s definition of leadership, which was stated in chapter one of this paper. In FM 22-100, *Army Leadership* (1999), leadership is defined as influencing people – by providing purpose, direction, and motivation – while operating to accomplish the mission and improving the organization. Both Yukl’s definition of leadership and the Army’s definition of leadership focus on the leader’s ability to influence.

How do leaders become influential and effective? Are leaders born with certain traits which make them effective, and simply emerge from the crowd; or are leaders effective because of what they do and or how they do it? If the first part of the question is correct, we should emphasize selection of leaders, but if the second part is correct, we would emphasize leadership training.

Some of the more popular research attempted to answer these specific questions. This research includes the trait, behavior, power-influence, situational, and the integrative

approaches to leadership. For a more in-depth discussion and history of leadership research, the reader is referred to *Bass and Stogdill's Handbook of Leadership* (Bass, 1990).

### **Trait Approach**

One of the earliest leadership studies was the trait approach. It was an extension of the “great man” idea. The essential secret of greatness according to this theory is simply to be born to be great (Hollander, 1978: 19). This theory and the trait approach can be simplified into effective leaders are born not made. It is based on the premise that natural skills are what set leaders apart from the followers. “Either they have it at birth or they don't” (McAlear, 2003: 310).

The trait approach “emphasizes attributes such as personality, motives, values and skills” (Yukl, 2002: 11). It also emphasizes “qualities such as courage, wisdom, and character” (Hollander, 1978: 21). Early studies focused on military leaders and biographies. Later, researchers began to conduct surveys to attempt to identify a list of common traits. Through all of the trait studies results were disappointingly unproductive. “The findings suggest that leadership is not a matter of passive status or of the mere possession of some combination of traits” (Bass, 1990: 77).

### **Behavior Approach**

Since many individuals were disappointed with the results from the trait approach, research was conducted to study the behaviors of leaders. Most researchers prefer to

study behavioral theory, because it is the most easily measured. Behavior is what you see. Psychology consists of the study of three states: affect (emotion), cognition (thought), and behavior (what you do). It is difficult to measure affect or cognition, unless they are revealed through specific behavior (Heffernan, 2000). It is for this reason that the research will focus on the behavioral approach.

This approach attempts to determine the behaviors that separate effective leaders from ineffective leaders. The behavior approach involves two areas: what managers do on the job, and what are effective leader behaviors.

The first area was to observe how managers interact with employees and handle conflicts. Observations, diaries, journals, job description questionnaires, and interviews were traditionally used to collect data on managerial duties. This provided insights into leader effectiveness (Yukl, 2002).

Effective leadership behaviors were identified using behavior description questionnaires during survey field studies. Hundreds of these studies have been conducted examining the relationship between behavior and effectiveness (Yukl, 2002).

Some of the prominent research efforts in this approach were the Ohio State University (OSU) studies and the Michigan Leadership studies (Yukl, 2002). This approach will be the focus of this paper, and the studies mentioned above will be described in more detail later in this chapter. Particular focus will be given to the studies conducted at OSU and the related work, the Managerial Grid, by Robert R. Blake and Jane S. Mouton (1985).

## **Power-Influence Approach**

The power-influence approach has a leader-centered perspective similar to the trait and behavior theories. It looks at the influence processes between leaders and others. Power is the focus of this approach and “is the ability to exercise control over persons, things, or events” (Hollander, 1978: 84). These persons are not only followers, but also peers, superiors and others outside the unit. The power-influence approach can be linked to the behavioral approach through the study of influence tactics. Two of the major pieces of this theory are directive and participative leadership. They are very much imbedded in the traditions of behavior research (Yukl, 2002).

There are many variables to consider when using the power-influence approach. What is the source of power? What type is it? What is its use? And, how is it distributed? This makes power-influence a complex approach. Most leaders tend to be both directive and participative; the amount of each they display depends on the circumstances or situation. Leaders will vary their leadership style according to the subordinate experience level, the relevance of participation, and the personality of the subordinates (Bass, 1990).

## **Situational Approach**

The situational approach contains a complexity of variables similar to the power-influence approach. This approach is similar to the Army’s approach to leadership. The Army describes the dependent variables of the situation as METT-TC (mission, enemy,

terrain and weather, troops, time available, civil considerations). If you want to know how to attack any problem in the Army, the solution is always METT-TC dependent.

“The starting point of the situational approach is that different situations required different leadership functions to be performed” (Hollander, 1978: 31). This approach considers the different influences on the leader’s effectiveness to include: the nature of the work being accomplished by the leader’s unit; the type of organization; and the nature of the external environment (Yukl, 2002). Simply put, leaders act differently when placed in different situations. This research attempts to correlate leader attributes with leader effectiveness in relationship to certain aspects of the situation. Does the infantry lieutenant react differently than the transportation lieutenant with subordinates? There are many situations in which their leadership should be similar, however transportation lieutenants have females in their units, where infantry lieutenants do not. These different situations can create different leadership approaches.

### **Integrative Approach**

The integrative approach is simply the combination of two or more of the other approaches. This has become increasingly more popular in recent years. A popular combination is integrating the trait approach and behavior approach (Yukl, 2002). An effective approach for this study may also be the behavior approach and the situational approach.

## **The Ohio State Leadership Studies**

The Ohio State University (OSU) pioneered behavioral leadership research in the late 1940s. The overarching goal of these studies was to identify those leadership behaviors necessary for effective leadership. The studies concentrated on relating specific leadership behaviors to attainment of group or organizational goals. “Practical aims were also kept in mind - - it was hoped that the research might produce data which would eventually be of value in the selection, training, and assignment of persons for leadership roles” (Stogdill and Shartle, 1955: vii).

The researchers initially compiled a list of over 1800 examples of leadership behaviors. Many of these behaviors could be subcategorized; thus, through factor analysis, the number was reduced to 150 and placed into two large categories: Consideration and Initiating Structure (Bass, 1990).

Consideration consists of those behaviors that relate to the treatment of the group. “The leader acts in a friendly and supportive manner, shows concern for subordinates, and looks out for their welfare” (Yukl, 2002: 50). An example of military consideration is the “open-door” policy. This gives the subordinate the impression that the leader is approachable and willing to listen to problems or concerns without fear of retribution.

The Initiating Structure category describes the leader who initiates the activity in the organization, organizes it, and establishes how the work is to be done. This leader is about meeting deadlines and is generally very directive (Bass, 1990). This is the commander who has many meetings to check the status of projects, emphasizes when the job is to be completed, and gives instructions on how to get the task accomplished in time.



Questionnaires were developed to measure the factors of consideration and initiating structure. The Leadership Behavior Description Questionnaire (LBDQ) was changed four times, but the core measures of consideration and initiating structure remained. Although the final version, the LBDQ XII, still assessed 10 additional measures, most researchers focused only on the main two (Yukl, 2002). It was intended to be administered to subordinates in order to obtain descriptions of their supervisors' individual leadership behaviors (Stogdill, 1963). The survey was administered in a factory setting to determine the relationship between each factor and the company's turnover rate. The findings showed that foremen with high levels of consideration tended to have lower turnover rates, while foremen with high initiating structure had higher turnover rates (Fleishman, 1973).

Edwin A. Fleishman then developed a Supervisory Behavior Description Questionnaire (SBDQ). This was similar to the LBDQ except that it focused only on the elements of consideration and initiating structure.

Edwin A. Fleishman also developed a Leadership Opinion Questionnaire in 1957 to look at the assessment of leadership attitudes. He continued to build from the groundwork established by the earlier studies at The Ohio State University. Instead of people describing their supervisors, the LOQ looked at what people believed were the appropriate actions in certain circumstances. According to Fleishman (1989):

The LOQ asks the leaders themselves to choose the alternative that most nearly expresses their opinion on how frequently they should do what is described by each item on the questionnaire, and what they, as a supervisor or manager, sincerely believe to be the desirable way to act.

This questionnaire focused solely on the dimensions: Consideration and Initiating Structure. It was determined through research that these two dimensions were independent. This was an important finding because it enabled leaders to score high, low, or any combination on the two dimensions (Fleishman, 1989). The LOQ showed that supervisors higher in both categories were more likely to be higher on performance ratings and other criteria of effectiveness (Bass, 1990).

The LOQ has been used by many different organizations and countries. The organizations vary from educational to business to government to military. This questionnaire will be the tool used in order to test the hypotheses, primarily because it is an existing tool for measuring the aspects of “Mission First, People Always” and it has been validated and tested for reliability over the past forty years.

### **Michigan Leadership Studies**

The Michigan Leadership Studies were conducted, at approximately the same time as the OSU studies, at the University of Michigan. “The focus of the research was the identification of relationships among leader behavior, group processes, and measures of group performance” (Yukl, 2002: 52). The studies distinguished between effective and ineffective leaders through the three categories of leader behaviors: task-oriented behavior, relations-oriented behavior, and participative leadership.

Task-oriented behavior and relations-oriented behavior are essentially the same as initiating structure and consideration from the OSU studies. In these studies, they found that effective leaders tended to use general supervision (Yukl, 2002). General

supervision allows subordinates to exercise initiative, share information, and be, to an extent, in control (Bass, 1990). The leader sets goals and guidelines, and subordinates determine task accomplishment and pace (Yukl, 2002).

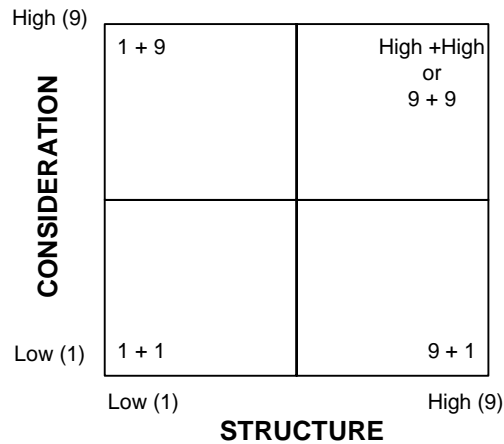
Participative leadership can be seen in the type of supervision applied by the leader. The leader can use either close or general supervision. The successful leaders tend to use more general supervision, while unsuccessful leaders tend to use close supervision. In general supervision, the leader allows subordinates more freedom. The subordinates are given directions on what to do, but are not told how to accomplish the task. The leader, who practices close supervision, focuses on the task being accomplished. This leader constantly checks the status of the job and is concerned with the method of accomplishment (Muczyk, 1984).

These studies were conducted using field studies, where the data was collected using interviews and questionnaires. The OSU studies have been much more utilized and popularized.

### **The Managerial Grid**

Blake and Mouton utilized the basic components of the OSU and Michigan studies to develop a managerial grid theory. This theory basically substituted concern for people for consideration and concern for production for initiating structure. Figure 1 demonstrates how Fleishman's studies would appear when overlaid on the Managerial Grid. Blake and Mouton do not deny the influence from these studies; they have simply developed a leadership training program that utilizes the data received from their questionnaire. Their questionnaire is administered at the beginning of the training

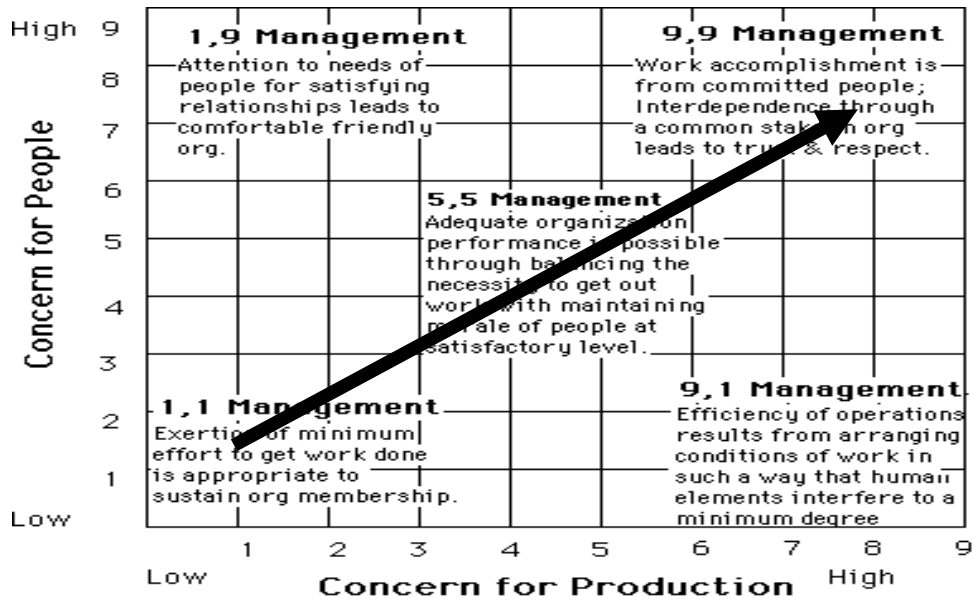
program to determine where the leaders are on the managerial grid. In this way they are able to determine the best training plan to achieve the organizations goals (Blake, 1985).



**Figure 1. Fleishman’s representation of consideration vs. structure**

**(Blake, 1985: 204)**

The managerial grid, shown in Figure 2, places values of increasing importance, from one to nine, on both of the concerns in this theory. In this grid system, there are five managerial styles. The most effective leader is the 9,9 manager while the least effective leader is the 1,1 manager. The 5,5 manager is the average, adequate leader and both the 1,9 and 9,1 managers have extremely conflicting ideas of production and people. These two are very strong in one area while terribly weak in the other. The idea of this training program is to enable the management to progress along the main diagonal until the optimal management level is reached (Blake, 1985).



**Figure 2. The Managerial Grid**

**(Blake, 1964: 10)**

The 9,1 managerial style assumes that people must suffer to achieve production. The 1,9 style puts the people first. This manager believes that if you push people for production, they will resist (Blake, 1964: 57). The 1,1 manager expects very little and has little expected of him or her. This leader is absent even when present (Blake, 1964: 105). 5,5 managers are somewhat concerned with both people and production. They exchange just enough information with subordinates to accomplish the task. The 5,5 manager believes that too much information could result in resistance. Blake and Mouton (1964) warn that people are generally satisfied with this style of manager and unfortunately never expect more. There are times and situations when the lesser levels can be effective and preferred. The 9,1 manager, for example, may excel with new workers who need extra supervision and guidance to ensure the job is completed

correctly. The 9,9 manager is focused on both the people and production. “There is no inherent conflict between the organization purpose of production requirements and the needs of people” (Blake, 1964: 142). The Army leader needs to be this type of leader.

## **Army Leadership**

Army leaders are asked to accomplish the mission and take care of their people at the same time. “Mission First, People Always” is an Army motto that signifies just that. Mission accomplishment can mean death or severe injury. “People” include soldiers and their families. At times these two ideas seem to be at odds. The Army’s leadership doctrine is used as an aid in the development of leaders. “FM 22-100, *Army Leadership*, establishes the Army’s leadership doctrine, the fundamental principles by which Army leaders act to accomplish the mission and take care of people” (DA, 1999: vii).

Army Leadership is “influencing people – by providing purpose, direction, and motivation – while operating to accomplish the mission and improving the organization” (DA, 1999: 1-4). The definition can be broken down for more in-depth clarification. Influencing is the ability to get people to do what you want done. This is more difficult than it sounds. Influence can be good or bad depending on the example set by the leader. Purpose is the reason for accomplishing the task. Subordinates want to know why they are doing what they are doing. Direction is the guidance given to assist in job completion. Motivation is the desire or will to accomplish the mission. Motivation comes through challenge and responsibility. A leader who watches over your shoulder de-motivates soldiers. Operating and improving consist of those actions that help

accomplish short-term goals and make the organization better and better prepares the organization to accomplish future missions (DA, 1999).

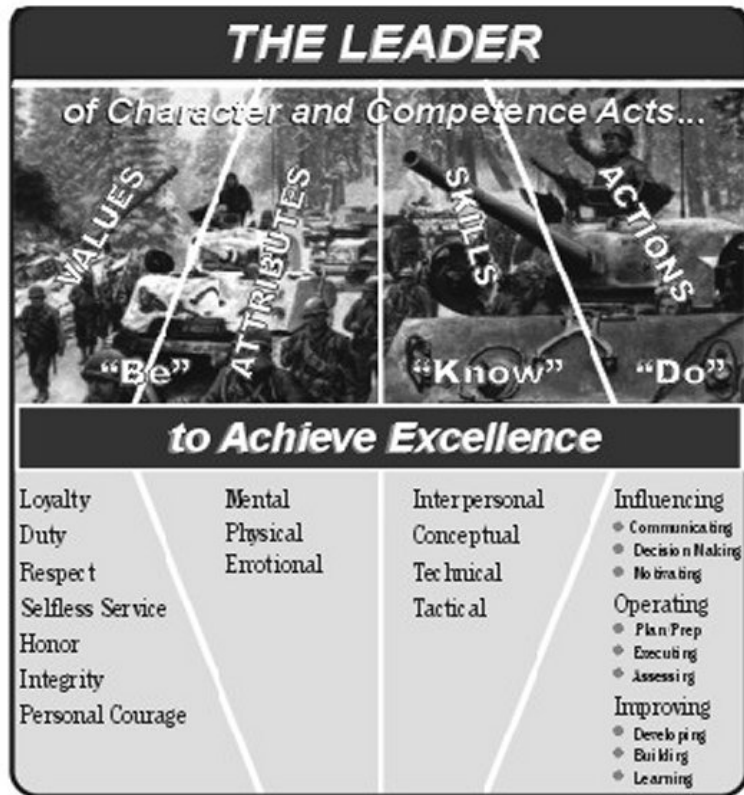


Figure 3. Army Leadership Framework

(DA, 1999: 1-4)

### BE, KNOW, DO

To be an effective leader and to understand how to accomplish the mission while taking care of people, one must establish a foundation. This foundation can be translated

into the characteristics of the Army leader. The characteristics of an Army leader have been divided into three categories: BE, KNOW, and DO. The “BE” category is made up of the Army values and attributes. It largely focuses on the character of the leader (DA, 1999). “Understanding Army values and leader attributes is only the first step. You must embrace Army values and develop leader attributes, living them until they become habit” (DA, 1999: 1-6). The “KNOW” category consists of skills a leader needs, and the “DO” category is comprised of actions (DA, 1999).

The Army values include **L**oyalty, **D**uty, **R**espect, **S**elfless Service, **H**onor, **I**ntegrity, and **P**ersonal Courage. Notice the highlighted letters spell an abbreviated form of leadership (**LDRSHIP**). If nothing else, the Army is clever. These provide leaders with character guidelines or how to BE. Leaders need to get subordinates to accept these values. Loyalty is the allegiance to those you swore to protect, serve and lead. Duty is doing what you are supposed to do. Respect is, the “Golden Rule,” treating people the way you want to be treated. Selfless service places the needs of everyone else before your own. Honor is doing what is right. It is living up to the values established by the Army. Integrity is doing what is right, even when no one is looking. Personal courage is being able to stand tall in fear, danger, or adversity (FM 22-100, 1999). Consideration and taking care of people can be found throughout each of these elements. By being effective and true in these values, initiating structure and mission accomplishment becomes easier. The leaders influence increases. Soldiers know the leader cares for them and places them and rightness above him/her.

Leader attributes like values must be taught. The attributes are placed in three groups: mental, physical, and emotional. Mental attributes consist of will, self-discipline,



initiative, judgment, self-confidence, intelligence, and cultural awareness. Physical attributes consist of health and physical fitness and military bearing and professionalism. Emotional attributes are self-control, balance, and stability (FM 22-100, 1999). These elements also add to the increased influence of the leader. The leader displays consideration and structure by ensuring he/she and the subordinates are in the best mental, physical, and emotional condition possible.

Knowledge is important for leaders. Subordinates tend to trust leaders who know what they are talking about. “KNOW” is made up of four categories of skills: interpersonal, conceptual, technical, and tactical. All four of these relate to a leader’s competency. “The kinds of competence needed by leaders are functional and value-added competence. The leader must bring some added value to the position” (Taylor, 1992: 134). A good leader develops interpersonal skills by getting to know those people who work around the leader. This leader displays high levels of consideration. Conceptual skills are vital in taking information, processing it, and applying it to a situation. Knowing your job and how to operate the equipment are examples of technical knowledge. The tactically skilled leader will be able to make sound effective decisions in combat (FM 22-100, 1999). Also, this leader will be able to provide the appropriate amount of structure through knowledge of people and tasks necessary to accomplish the mission.

The “DO” category consists of three key words from the Army leadership definition: influencing, operating, and improving. To reiterate, influencing is getting people to do what you want. This can most effectively be accomplished with the right amount of consideration and structure. Operating involves accomplishing short-term

goals, and improving consists of making the organization better and better preparing the organization to accomplish future missions (FM 22-100, 1999).

It is also important to understand that Army leadership consists of three levels and each level has different leadership requirements. The three Army leadership levels are the direct, organizational, and strategic. Each level has a foundation of values and attributes (BE). Where each level differs is in the KNOW and DO categories.

### **Army Leadership Levels**

Strategic Leadership is the highest level of leadership. They think big picture, such as force structure and future preparations. Strategic leaders have a global perspective (DA, 1999). They are the generals who command divisions and corps. They “bring together units, fire support, and supplies at the right place and time for battle” (Malone, 1983: 26).

Organizational Leadership is the middle level of leadership. An organization level leader deals with brigade level units. They focus on planning and mission accomplishment over about two years (DA, 1999). Malone (1983) refers to them as the Colonels. “The colonels are responsible for directing and controlling the battle” (Malone, 1983: 26).



**Figure 4. Army Leadership Levels**

**(DA, 1999: 1-36)**

The last and lowest level of leadership is the direct level of leadership. Direct leaders are face to face with their soldiers. They are generally found at the company level and below. Their span of influence involves those they can reach out and touch. There is much more certainty and less complexity at this level (DA, 1999: 1-11). They are close to the action. Direct level leaders “are the captains who lead the small units that fight the battle” (Malone, 1983: 26).

For Army leadership, it is essential to build a good foundation while at or entering the direct level of leadership. The leader must then be taught and learn the essential skills and actions for that level. As the leaders progress through the levels of leadership, they must maintain the values, attributes, skills, and actions for that the lower levels while learning those necessary skills and actions required for the higher level.

The Army leadership framework of BE, KNOW, DO is vital to the success of a military leader. No one part stands alone. Similar to the Ohio State Leadership Studies, the Army leadership doctrine is composed of many elements. Both the OSU studies and the Army doctrine revolve around the elements of consideration (taking care of people) and structure (mission accomplishment). This framework must be taught to leaders at the lowest levels. This paper will focus on the direct level of leadership, specifically ROTC cadets. This is where young minds are molded and the most vital foundation is laid. This is why the Army invests so much time and money in the training and development of young cadets and officers. For this paper, the LOQ will allow the Army to better determine strengths and weaknesses of the ROTC program.

### **Military Studies**

The Navy has dominated the military research on leadership behavior. The Air Force and the Army have also conducted research to assist in the determination of what makes leaders effective. Many of these studies have focused on junior officer development and the training problems within (Morabito, 1985).

In most of the military studies that were based on the OSU categories, it was found that peers and subordinates generally viewed leaders high in consideration more favorably. Also, superiors tended to view leaders with more initiating structure favorably (Van Fleet, 1986).

The LOQ has been administered to ROTC cadets, Air Force NCO's and Naval Officer Candidates. In general, these groups scored high in consideration toward

subordinates, but at the same time scored high or low in structure. This was interesting because it related to the earlier OSU studies using the SBDQ. In SBDQ studies, workers who wanted highly considerate supervisors didn't necessarily want less or more structure from their boss. In the case of the Naval Officer Candidates, the tendency was to associate high consideration with low structure (Fleishman, 1957). These findings tend to support the desire for the high-high leader. The leader exhibiting strengths in both consideration and structure will please subordinates and supervisors.

### **Chapter Summary**

Leadership is a dynamic concept that remains one of life's great mysteries. People are fascinated by what makes effective leaders. In this chapter, leadership and some of the major leadership theories were discussed. Particular attention was devoted to the Ohio State University Studies and the tools used in those studies. Also, related research conducted by Blake and Mouton (1964) was covered. Army leadership was discussed in great detail and related to the earlier civilian research. The chapter concluded with a summary of some of the military research that was conducted using the tools from the OSU studies. The interest in this research stems from the differences in leadership style within the Army. This research will utilize the Leadership Opinion Questionnaire to help determine if the Army is getting the right leaders, and to assist them in the areas of leadership training that need to be emphasized.

### **III. Methodology**

*True genius resides in the capacity for evaluation of uncertain, hazardous, and conflicting information.*

*-----Sir Winston Churchill*

#### **Chapter Overview**

This chapter presents the technique utilized to satisfy the research objectives described in Chapter 1. It defines the research population and the sample from which the data were collected. The questionnaire employed to collect the data is presented along with the data analysis plan.

#### **Introduction**

The Leadership Opinion Questionnaire (Fleishman, 1953) was administered to ROTC cadets and non-ROTC college students to determine if there are differences in their beliefs about how leaders should conduct themselves. The study also attempted to determine if the Army was developing these cadets to reflect the “Mission First, People Always” Army motto. The questionnaire measures two dimensions: Consideration and Structure. Consideration involves relationships and rapport (Fleishman, 1989). This dimension corresponds to the “People Always” element of the Army motto. Structure is very task oriented and refers to attaining goals (Fleishman, 1989). This dimension appears to correlates with “Mission First.”

Chapter II presented several theories and methods that have been used to attempt to discover the link between leadership behavior and effectiveness. This chapter provides a discussion of the population, sample, administration, scale development, and statistical analysis used in the study.

## **Population**

The research population of interest is considered to be all Army Reserve Officer Training Corps (ROTC) Cadets in their Military Science (MS) III and IV years (junior and senior) throughout Cadet Command. The sample was restricted to several universities within the Eastern Region, due to constraints associated with personally administering surveys and receiving permissions to administer the surveys. The sample was further restricted to universities within 7<sup>th</sup> Brigade of the Eastern Region. This was due to time constraints, permissions, and a limited number of questionnaires. The administration of the questionnaires was limited by the funding available to purchase the questionnaires.

The universities that have ROTC programs and agreed to participate in this research were Bowling Green State University, Capital University, Eastern Kentucky University, The Ohio State University, University of Dayton, University of Toledo, and Wright State University. The non-ROTC university that assisted in this research as a control group was Urbana University. The control group not being at the same universities was selected for several reasons. The approval process at one university was more efficient and easier than at seven separate universities. Also, the control group

university had no ROTC influence because students at Urbana have no opportunity to take military science classes. No attempt should be made to generalize the results of this research to individuals outside of the specific population parameters.

### **Sample**

Within the population, a sample of cadets and non-ROTC students volunteered to complete the questionnaire. A total of 344 questionnaires were administered and completed. All 344 questionnaires were completed fully and correctly. A breakdown of the individual samples can be found in Table 1.

**Table 1. Sample Size for Each Demographic Category**

<b>Demographic Category</b>	<b>Options</b>	<b>Sample Size (N)</b>
<b>ROTC</b>	<b>MSIII</b>	<b>130</b>
	<b>MSIV</b>	<b>102</b>
<b>Non-ROTC</b>	<b>Junior</b>	<b>59</b>
	<b>Senior</b>	<b>53</b>
	<b>Total</b>	<b>344</b>

### **The Survey Instrument**

The Leadership Opinion Questionnaire was used to collect data in order to determine if the Army's desire for officer behavioral opinions coincided with the



individual’s opinions of what a leader should do. The questionnaire consists of 40 items which provide a brief measure of the two dimensions: consideration and structure. Individual answers demonstrate how often the individual completing the questionnaire feels they should behave in the manner described in each item (Fleishman, 1989).

This survey was selected because it has a well respected and documented history. Many reliability and validity tests have been conducted on this questionnaire to much success. It measures the two dimensions which most closely correspond to the “Mission First, People Always” motto of the Army.

There are twenty items corresponding to each leadership dimension being measured. They are shown in Table 2. The forty items are scored on a 5-point scale (0 to 4) and several of the items are reverse-scored. Items 7, 8, 11, 13, 15, 18, 26, 28, 29, 34, 36, and 38 are reverse-scored. These items are reverse-scored because they are worded in a negative manner.

**Table 2. Variable Description and Classification**

<b>Questionnaire Item Number</b>	<b>Variable Description</b>	<b>Data Level</b>
<b>2,5,7,8,10-13,15,17,19,23,24,28,29,32-34,36,38</b>	<b>Consideration</b>	<b>Ordinal (5-pt scale)</b>
<b>1,3,4,6,9,14,16,18,20-22,25-27,30,31,35,37,39,40</b>	<b>Structure</b>	<b>Ordinal (5-pt scale)</b>

Students taking the questionnaire can select from three different styles of response. Several questions offer the options of Always, Often, Occasionally, Seldom,

and Never; others offer Often, Fairly often, Occasionally, Once in a while, and Very seldom; the third option consists of A great deal, Fairly often, To some degree, Once in a while, and Very seldom. This data level is considered ordinal. This refers to an ordered scale which implies responses are arranged from better to worse. A characteristic of ordinal scale is that the intervals between scale points are not equal in value (Heffernan, 2000).

### **Administration of the Questionnaire**

The LOQ was personally administered at each university where permission was granted to all students who voluntarily participated. Each student was given a brief one page information sheet, found in Appendix B, to read over before deciding whether or not to participate. The subjects, who volunteered, were then given the LOQ and told to wait on the instructions. They were then instructed to write only their class standing on the questionnaire. Once this was complete, the instructions were read to them and the subjects were told to begin. Once the questionnaires were complete, they were collected and the responses were transferred to a spreadsheet. The spreadsheet was then input into the Statistical Package for the Social Sciences (SPSS), a computer program that assists with statistical analysis.

### **Experimental Design**

The experimental design for this research is the Posttest-Only Control Group Design. In this design, subjects who receive training are placed in one group, while a

second group of untrained subjects become the control group. This design was chosen due difficulties in administering a pretest. The group that received the training in this research is the ROTC cadets and the control group is the non-ROTC students.

### **Statistical Analyses**

Analysis of the data from this study was performed using the statistical program SPSS. It was determined that the research problem was both descriptive and inferential in nature. Descriptive statistics are basically summary statistics. They are displaying the mean, the range and the standard deviation of the responses (Heffernan, 2000). “A statistical inference is an estimate or prediction or some other generalization about a population based on information contained in a sample” (McClave, 2001: 7). The first thing that needed to be completed was an internal check of the reliability of the two scales: Consideration and Structure. After determining the scales reliability, the means would need to be computed. This would be followed by an analysis of variance (ANOVA). This was the primary method of statistical analysis. Both the means computations and the ANOVA analysis would be conducted on the ROTC, class, and university groupings. These three categories align with the hypotheses stated in Chapter I.

Reliability of the scales basically shows us that over the sample, people generally respond in a similar manner. If measurements on a set of questions cannot be replicated, we must conclude that the scores are extremely unstable or that the score obtained by each question was a matter of chance (Kachigan, 1991). Either way the scales would be

unreliable. The reliability of the scales will be tested using Cronbach's Alpha within SPSS. Cronbach's Alpha is a coefficient of reliability and is extremely useful when measuring questionnaire utilizing a Likert scale (Huck, 1996). The generally accepted standard for reliability is greater than .70 (Nunnally, 1978).

The next step in analysis is to create scores for both variables: consideration and structure. This can be accomplished in two ways: summing the item scores related to each variable or by taking the means of the two items (Kachigan, 1991). For this study, the means were computed for both variables. When conducting means calculations, the program (SPSS) displays the size of the group tested (N), the means and standard deviations for all groupings tested for each of the scales.

Once these were complete, an analysis of variance could be conducted. Two one-way ANOVAs would be conducted, for each grouping, due to the independence of the two variables. It would assist in establishing if there are differences in the mean values in the criterion variables. We want to understand the relevant sampling distribution, and to do that we must understand what we expect the sampling distribution of  $F$  to look like. We would expect the mean value of  $F$  to be 1 (Kachigan, 1991). In ANOVA, the results we can expect to see are the degrees of freedom, sum of squares, and mean squares. If the  $F$ -test leads to the conclusion that the means differ, the results will be used to summarize the statistical significance of the differences in the means. If the  $F$ -test leads to the conclusion that the means are the same, then we will not reject the null hypothesis.

## **Chapter Summary**

This chapter has provided the methodology to accomplish the research objectives presented in Chapter 1. It also defined the population and sample. The survey instrument that was used in data collection and the method in which the instrument was administered was described. The plan for the data analysis was also described. The following chapter will describe the research results and explain the steps used in data analysis.

## IV. Results

*A good plan violently executed now is better than a perfect plan next week.*

-----*General George S. Patton Jr.*

### **Introduction**

This research began with the overall objective of determining whether or not the training implemented in ROTC sets cadets apart from non-ROTC college students. In particular, this research sought to compare ROTC cadets to non-ROTC students and ROTC junior cadets to ROTC senior cadets using the Leadership Opinion Questionnaire (LOQ). The analysis and results presented in this chapter are an attempt to examine the differences between groups according to the scale variables in the LOQ.

First, the reliability of the scales was evaluated. Next, the data were run through means testing to develop mean scores for each subject and group within the sample. A discussion of the analysis of variance followed revealing associations between the group means. Statistically significant differences were found between group means during the ANOVA testing that led to the rejection of some of the hypotheses posed in Chapter I.

### **Reliability of the Scales**

Before using the LOQ data, the reliability of the LOQ and more specifically, the two scale variables had to be tested. Using SPSS and the Cronbach Alpha to extract the scale coefficients, it was determined that the twenty items within the two scales do indeed measure the same behavioral dimension. The reliability coefficients of the Consideration

scale for 20 items and 344 cases provided an Alpha score of .6620, and the reliability coefficients of the Structure scale for 20 items and 344 cases provided an Alpha score of .6818. These numbers are slightly lower than the .70 that is desired, however they are extremely close and were determined to be sufficient for this study. The coefficients from previous studies ranged from .62 to .89 (Fleishman, 1989).

### **Means Computations**

Means were computed and assigned for each subject and group within the sample population. When computing these means, the N and standard deviations were also calculated. The group values are listed in the following table (Table 3) and are broken into three categories: ROTC, Class (Overall and ROTC Only), and University.

Table 3 shows the means, N, and standard deviations of the ROTC group. This group is divided into two subgroups: subgroup 0 (non-ROTC members) and subgroup 1 (ROTC cadets). These numbers are listed for both scale variables: consideration and structure. The two subgroups are virtually the same for scale variable structure, with ROTC cadets scoring slightly higher. On the consideration scale variable, the non-ROTC students scored several points higher (non-ROTC = 55.7679, ROTC = 51.2069).

It also shows the means, N, and standard deviations of the Class group. This table has class comparisons for the entire sample (juniors versus seniors) and also for ROTC cadets only (MSIII v. MSIV). The ROTC cadets' only category is to assist in the testing of hypotheses 3 and 4. This Class group is divided into two subgroups: subgroup 0 (juniors/MSIII) and subgroup 1 (seniors/MSIV). These numbers are listed for both scale

variables: consideration and structure. The two subgroups are once again virtually the same for scale variable structure. In this case the lowerclassmen scored slightly higher. On the consideration scale variable, the two subgroups are essentially the same, with upperclassmen scoring slightly higher.

Table 3, also, shows the means, N, and standard deviations of the University group. This data will assist in the testing of hypothesis 5 and 6. This group is divided into eight subgroups which represent the eight universities questioned. These numbers are listed for both scale variables: consideration and structure. The eight subgroups vary slightly for both scale variables. Subgroup 3 and 4 scored slightly higher than the other subgroups on structure with subgroup 2 and 8 scoring the lowest. On consideration, subgroup 7 scored slightly higher than the rest.

### **Analysis of Variance**

Once the computing of means was completed, the mean data for each subject in the sample could be input into SPSS to conduct the analysis of variance (ANOVA). Five ANOVAs were conducted for each scale variable. The subgroups evaluated for each scale variable are ROTC, Class (All), Class (ROTC Only), University (All), and University (ROTC Only). Table 3, below, show the results of the ANOVAs.

This table gives the ANOVA results for consideration. From this analysis, the ROTC group was identified as having significant differences between group means. The means of the two groups, ROTC cadets and non-ROTC students, significantly differ with a probability of error of 1 percent. To determine where the significant difference existed,



ANOVAs were conducted on non-ROTC juniors versus MSIII cadets and non-ROTC seniors against MSIV cadets. The seniors and the MSIVs significantly differ with a probability of error of 4.5 percent. All of the other groupings display no significant difference in their group means.

**Table 3. Scale Variable Means, Standard Deviations, and ANOVA Results**

Category	Subcategories	Variable				Variable			
		Consideration		ANOVA Results		Structure		ANOVA Results	
		M	SD	F	p-value	M	SD	F	p-value
ROTC	ROTC Cadets	51.2069	6.2336	1.722	0.010**	55.6466	6.7217	0.977	0.510
	Non-ROTC students	55.7679	5.7343			55.3750	5.7455		
Class (All)	Juniors/MSIII	52.5238	6.4359	0.714	0.879	55.6878	6.6447	0.924	0.598
	Seniors/MSIV	52.8968	6.4458			55.4000	6.1365		
	Juniors (Non-ROTC Only)	55.5593	5.7514	1.252	0.187	55.2203	6.0999	0.680	0.906
	MSIII	51.1462	6.2742			55.9000	6.8899		
	Seniors (Non-ROTC Only)	56.0000	5.7613	1.578	.045*	55.5472	5.3765	1.017	0.452
	MSIV	51.2843	6.2114			55.3235	6.5206		
Class (ROTC Only)	MSIII	51.1462	6.2742	0.890	0.638	55.9000	6.8899	0.872	0.676
	MSIV	51.2843	6.2114			55.3235	6.5206		
Universities	Bowling Green State Univ	51.4103	6.1461	0.857 (All)	0.696 (All)	55.4359	7.0067	1.179 (All)	0.230 (All)
	Capital Univ	52.4500	5.3161			53.4500	7.2219		
	Eastern Kentucky Univ	52.7000	4.5573			57.6667	3.4674		
	Ohio State Univ	50.9455	7.4422			56.6727	5.7512		
	Univ of Dayton	50.1667	6.0463	0.642 (ROTC)	0.929 (ROTC)	55.2667	5.0918	1.387 (ROTC)	0.086* (ROTC)
	Univ of Toledo	50.1250	6.3589			55.3750	9.0830		
	Urbana Univ	55.7679	5.7343			55.3750	5.7455		
	Wright State Univ	51.3077	6.0780			53.9231	8.4234		

\* p < .10

\*\* p < .05

Table 3 also gives the ANOVA results for structure. From this analysis, University (ROTC only) was identified as having significant differences between group means. The means of the seven sub-groups significantly differ with a probability of error of 8.6 percent. All of the other groupings display no significant difference in their group means.

### **Chapter Summary**

Chapter IV presented the results from the examination of the relationships found among study variables. First, reliability of the LOQ and its two variable scales were examined. This analysis gave some indication of the ability of the instrument to measure the specified variables. The second phase of analysis consisted of computing the means for each category of analysis. This provided the data necessary to conduct the ANOVAs. The results of the ANOVAs supported all of the hypotheses except two. The specific results as they relate to the hypotheses and suggestions will be addressed in Chapter V.

## V. Discussion

*Readiness is the best way of truly taking care of soldiers.*

----- *Sergeant Major of the Army*  
*Richard A. Kidd*

### Chapter Overview

This research was initiated with the intent of examining the leadership attitudes of ROTC cadets as compared to non-ROTC college students. This chapter discusses the results of the statistical analysis performed in Chapter IV that assessed the associations among variables using analysis of variance (ANOVA). This analysis is discussed in reference to the six hypotheses posited in Chapter I and conclusions regarding this research are drawn. Additionally, this chapter discusses the limitations of the research as well as suggestions for training improvement. The final section of this chapter suggests further research.

### Hypothesis 1

Hypothesis 1 proposed that ROTC cadets and non-ROTC students will score the same on Initiating Structure. The ANOVA used in testing the ROTC group supports this hypothesis. This was found to be somewhat surprising due to the extensive structure and organizational design associated with military service. It was also surprising because, a significant portion of the training taught in ROTC focuses on mission accomplishment. It was expected to be a significant difference with the ROTC cadets scoring higher on this

scale. It was concluded that, based on this research, leadership opinions do not differ in regards to structure across ROTC and non-ROTC students.

## **Hypothesis 2**

Hypothesis 2 stated that ROTC cadets and non-ROTC cadets will score the same on Consideration. This research tested Hypothesis 2 by performing an ANOVA. In this instance the null hypothesis was rejected. A significant difference in the means of ROTC cadets and non-ROTC students exists. The mean difference was 55.7679 for non-ROTC and 51.2069 for ROTC. The probability of error for this difference is 1 percent.

## **Hypothesis 3**

Hypothesis 3 proposed that MSIV and MSIII cadets will score the same on Initiating Structure. The ANOVA used in testing the Class (ROTC only) group supports this hypothesis. Although there was no significant difference between cadets, the MSIII cadets scored slightly than MSIV cadets. This was extremely surprising, due to the additional training that MSIV cadets have received. A possible explanation could be that certain types of individuals may self-select into ROTC. Those individuals may have similar and unchanging opinions in regards to structure. It was concluded, therefore, based on this research that leadership opinions do not differ in regards to structure across ROTC cadets.

#### **Hypothesis 4**

Hypothesis 4 predicted that MSIV and MSIII cadets will score the same on Consideration. The ANOVA used in testing the Class (ROTC only) group supports this hypothesis. Although no significant difference was discovered, MSIV cadets scored slightly higher than MSIII cadets. The difference was too small to determine the value of the additional training received. A possible explanation could once again be self-selection into ROTC. Those individuals may have similar and unchanging opinions in regards to consideration. It was concluded, therefore, based on this research that leadership opinions do not differ in regards to consideration across ROTC cadets.

#### **Hypothesis 5**

Hypothesis 5 proposed that all universities will score the same on Initiating Structure. The ANOVA used in testing the University (All) group supports this hypothesis. This result was expected. What wasn't expected was the significant difference in means that was discovered when an ANOVA was done using the University (ROTC only) group. This could possibly be explained by the types of students that are attracted by different universities. State funded schools may draw vastly different students than private universities. The means significantly differed with a probability of error of 8.6 percent. However, it was concluded, therefore, based on this research that leadership opinions do not differ in regards to structure across universities.

## **Hypothesis 6**

Hypothesis 6 proposed that all universities will score the same on Consideration. The ANOVA used in testing the University (All) group supports this hypothesis. This was expected. Conducting an ANOVA using only ROTC cadets did not prove to be statistically significant. It was concluded, therefore, based on this research that leadership opinions do not differ in regards to consideration across universities.

## **Limitations**

This research contains a few limitations which must be considered when evaluating the results and conclusions. First, the Leadership Opinion Questionnaire was administered to MSIII and MSIV cadets and non-ROTC college juniors and seniors only; furthermore, these cadets were all attending college in the same region of the country. Also, due to time constraints, this study was cross-sectional and not longitudinal. It was merely a snapshot in time, unable to question the same cadets throughout their progression through ROTC, and was therefore unable to determine if the training implemented changed their personal leadership opinions. Finally, not all direct level leadership training was addressed in this research. Army leadership training for junior officers (prior to them seeing soldiers) continues into the Officer Basic Course (OBC).

## **Suggestions for Training Improvement**

This research is in no way to be interpreted to say that the ROTC program has no value. This research focused on only two leadership dimensions: consideration and

structure. According to Muczyk and Adler (2002) there are three levels of abstraction – big leadership, mid-range leadership, and small leadership. Mid-range leadership is the leadership level discussed throughout this research. There are five crucial leadership dimensions associated with mid-range leadership. They are: consideration, concern for production (structure), incentive for performance, participation or democratic leadership, and direction (Muczyk, 2002: 8). Only two of these dimensions are approached throughout this research. While there does not seem to be a significant effect of training measured by this research, there may be significant training value in the other three leadership dimensions.

Also it is important to note that the Army has made great strides in developing a set of textbooks to assist the training of cadets. This has created a uniform tool for instruction and ensured cadets will be similarly prepared for military service. Although this is a positive step, the training can only be as uniform as the instructors teaching classes.

Army cadets scored well on both dimensions, however they fell short of their non-ROTC counterparts in regards to Consideration. Most ROTC cadets are not exposed to taking care of others and will not fully understand what “People Always” truly means until they are in charge of soldiers and their families.

According to FM 22-100, taking care of soldiers means “creating a disciplined environment where they can learn and grow” (DA, 1999: 3-4). This implies an emphasis of structure with an element of general supervision. The Army could go a long way in teaching future leaders how to lead without micro-managing.

Also, improvements in teaching Army Values can be an effective measure in increasing Consideration. If leaders truly know, believe, and practice these values they will better understand how to take care of soldiers.

### **Suggestions for Further Research**

If possible this research should be expanded to include a larger sample with more geographic breadth. The control group population would be more effective if it were consisting of non-ROTC students from the universities that contributed the ROTC subjects. This research could be expanded to other services (Air Force, Navy, and Marine Corps) and comparisons could be made across them to determine if these subjects' opinions of leadership differ.

Probably the most significant opportunity exists with the combination of the Leadership Opinion Questionnaire (LOQ) and the Supervisory Behavior Description Questionnaire (SBDQ). The researcher could administer the LOQ to leaders in the field and administer the SBDQ to the subordinates under the leader. The LOQ would measure the self-measure leadership opinions while the SBDQ would measure the subordinates' opinions of the supervisor's leadership. This could be administered at different levels of leadership. One of the areas this research is lacking is in upper level leadership.



## Appendix A

# LEADERSHIP OPINION QUESTIONNAIRE

By

Edwin A. Fleishman, Ph.D.

**Purpose:** This project is investigating how individuals' leadership opinions may vary according to their year in the Reserve Officer Training Corps (ROTC) program and compared to non-ROTC students. Are the leadership opinions determined in the questionnaire different in ROTC students from non-ROTC personnel of similar academic year group? Does the leadership training implemented in ROTC effect change in leadership opinions from the MS III (junior) to the MSIV (senior) cadets and do these opinions coincide with the Army's desires? The leadership behaviors being investigated are those defined by Fleishman (1953, 1957): consideration and initiating structure.

**Participation.** We would greatly appreciate your completing this questionnaire. Your participation is COMPLETELY VOLUNTARY. However, your input is important for us to understand leadership and the value of training. You may withdraw from this study at any time without penalty.

**Status of Subjects:** The sample will consist of contracted Army ROTC cadets at various universities. They will be both MS III and MSIV cadets. Also, there will be non-ROTC juniors and seniors participating.

**Use of Data:** All data will be kept confidential and are protected by the Privacy Act of 1974. All results will be reported as group summaries. There is no identifiable data on the questionnaire. No participant's name will appear in any reports, papers, or publications resulting from the study.

**Risks to Subjects:** There are no risks associated with participation in this study. No data or results will be submitted for inclusion in your personnel files.

**Feedback to Subjects:** Copies of the final report will be available from AFIT.

**How to Participate:** Completion of the entire survey requires about 10-15 minutes. The individual administering the survey, your ROTC instructor, or your classroom instructor will provide instructions on distribution and collection of the surveys.

I have read the above information and am willing to participate in the study.

## **PART I. DEMOGRAPHIC INFORMATION**

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In Part I, please circle the appropriate answer to each demographic category. If a particular demographic does not apply, please skip to the next item.

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**Contracted ROTC Year:**

**MSIII**

**MSIV**

**Non-ROTC students:**

**Junior**

**Senior**

## **PART II. QUESTIONNAIRE**

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For each item, choose the alternative which most nearly expresses your opinion on how frequently you should do what is described by that item. Always indicate what you as a leader, supervisor, or manager; sincerely believe to be the desirable way to act. Please remember – there is no right or wrong answers to these questions. Different supervisors have different experiences and we are interested only in your opinions. Fill in the circle next to the alternative that best expresses your feeling about the item.

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**1. Put the welfare of your unit above the welfare of any person in it.**

Always  Often  Occasionally  Seldom  Never

**2. Give in to your subordinates in discussions with them.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**3. Encourage after-duty work by persons of your unit.**

A great deal  Fairly much  To some degree  Comparatively little  Not at all

**4. Try out your own new ideas in the unit.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**5. Back up what persons under you do.**

Always  Often  Occasionally  Seldom  Never

**6. Criticize poor work.**

Always  Often  Occasionally  Seldom  Never

**7. Ask for more than the persons under you can accomplish.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**8. Refuse to compromise a point.**

Always  Often  Occasionally  Seldom  Never

**9. Insist that persons under you follow to the letter those standard routines handed down by you.**

Always  Often  Occasionally  Seldom  Never

**10. Help persons under you with their personal problems.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**11. Be slow to adopt new ideas.**

Always  Often  Occasionally  Seldom  Never

**12. Get the approval of persons under you on important matters before going ahead.**

Always  Often  Occasionally  Seldom  Never

**13. Resist changes in ways of doing things.**

A great deal  Fairly much  To some degree  Comparatively little  Not at all

**14. Assign persons under you to particular tasks.**

Always  Often  Occasionally  Seldom  Never

**15. Speak in a manner not to be questioned.**

Always  Often  Occasionally  Seldom  Never

**16. Stress importance of being ahead of other units.**

A great deal  Fairly much  To some degree  Comparatively little  Not at all

**17. Criticize a specific act rather than a particular member of your unit.**

Always  Often  Occasionally  Seldom  Never

**18. Let the persons under you do their work the way they think is best.**

Always  Often  Occasionally  Seldom  Never

**19. Do personal favors for persons under you.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**20. Emphasize meeting of deadlines.**

A great deal  Fairly much  To some degree  Comparatively little  Not at all

**21. Insist that you be informed on decisions made by persons under you.**

Always  Often  Occasionally  Seldom  Never

**22. Offer new approaches to problems.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**23. Treat all persons under you as your equals.**

Always  Often  Occasionally  Seldom  Never

**24. Be willing to make changes.**

Always  Often  Occasionally  Seldom  Never

**25. Talk about how much should be done.**

A great deal  Fairly much  To some degree  Comparatively little  Not at all

**26. Wait for persons in your unit to push new ideas.**

Always  Often  Occasionally  Seldom  Never

**27. Rule with an iron hand.**

Always  Often  Occasionally  Seldom  Never

**28. Reject suggestions for changes.**

Always  Often  Occasionally  Seldom  Never

**29. Change the duties of persons under you without first talking it over with them.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**30. Decide in detail what shall be done and how it should be done by the persons under you.**

Always  Often  Occasionally  Seldom  Never

**31. See to it that persons under you are working up to capacity.**

Always  Often  Occasionally  Seldom  Never

**32. Stand up for persons under you, even though it makes you unpopular with others.**

Always  Often  Occasionally  Seldom  Never

**33. Put suggestions made by persons in the unit into operation.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**34. Refuse to explain your actions.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**35. Ask for sacrifices from persons under you for the good of your entire unit.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**36. Act without consulting persons under you.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**37. "Needle" persons under you for greater effort.**

A great deal  Fairly much  To some degree  Comparatively little  Not at all

**38. Insist that everything be done your way.**

Always  Often  Occasionally  Seldom  Never

**39. Encourage slow-working persons in your unit to work harder.**

Often  Fairly often  Occasionally  Once in a while  Very seldom

**40. Meet with the persons in your unit at certain regularly scheduled times.**

Always  Often  Occasionally  Seldom  Never

## Appendix B

### Spreadsheet Recordings of Individual-By-Question LOQ Scores

The following spreadsheets are the individual responses to the 40 questions in the LOQ. The first twenty questions are on the even numbered pages of this appendix, while the second twenty questions are on the odd numbered pages with the exception of the last page of this appendix, which contains both on one page. The numbers beneath each question represent the score on the Likert scale given to the response to the corresponding question by that specific individual. Below is a key to assist the reader in interpreting the data.

**Table 4. Key for LOQ Spreadsheets**

<b>Column Title</b>	<b>Interpretation</b>
<b>Student</b>	<b>Gives each student a specific number 1 - 344</b>
<b>UNIV.</b>	<b>University student attends (Numbered 1 - 8)</b>  1 - Bowling Green State University 2 - Capital University 3 - Eastern Kentucky University 4 - The Ohio State University 5 - The University of Dayton 6 - The University of Toledo 7 - Urbana University 8 - Wright State University
<b>ROTC</b>	<b>Student status as an ROTC cadet or a non-ROTC student</b>  0 - Non-ROTC 1 - ROTC
<b>Class</b>	<b>The students academic class</b>  0 - MSIII/Junior 1 - MSIV/Senior
<b>Q1-Q40</b>	<b>Question 1 through question 40</b>





S t u d e n t	U N I V .	R O T C	C l a s s	Q 2 1	Q 2 2	Q 2 3	Q 2 4	Q 2 5	Q 2 6	Q 2 7	Q 2 8	Q 2 9	Q 3 0	Q 3 1	Q 3 2	Q 3 3	Q 3 4	Q 3 5	Q 3 6	Q 3 7	Q 3 8	Q 3 9	Q 4 0	
1	8	1	0	4	4	4	2	4	2	3	3	4	4	4	4	3	2	4	1	4	2	3	2	2
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S t u d e n t	U N I V .	R O T C	C l a s s	Q 2 1	Q 2 2	Q 2 3	Q 2 4	Q 2 5	Q 2 6	Q 2 7	Q 2 8	Q 2 9	Q 3 0	Q 3 1	Q 3 2	Q 3 3	Q 3 4	Q 3 5	Q 3 6	Q 3 7	Q 3 8	Q 3 9	Q 4 0
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## Appendix C

# Average Response For Consideration Questions Comparing ROTC to Non-ROTC Subjects

**2. Give in to your subordinates in discussions with them**

ROTC (1.14)    **Once in a while**    Non-ROTC (1.25)

**5. Back up what persons under you do**

ROTC (3.15)    **Often**    Non-ROTC (3.27)

**7. Ask for more than persons under you can accomplish**

ROTC (2.56)    **Occasionally - Once in a while**    Non-ROTC (2.56)

**8. Refuse to compromise a point**

ROTC (2.24)    **Occasionally - Often**    Non-ROTC (2.45)

**10. Help persons under you with their personal problems**

ROTC (3.39)    **Fairly Often**    Non-ROTC (3.35)

**11. Be slow to adopt new ideas**

ROTC (2.75)    **Occasionally - Seldom**    Non-ROTC (2.97)

**12. Get the approval of persons under you on important matters before going ahead**

ROTC (2.01)    **Occasionally - Often**    Non-ROTC (2.43)

**13. Resist changes in ways of doing things**

ROTC (2.56)    **To some degree - Comparatively little**    Non-ROTC (2.69)

**15. Speak in a manner not to be questioned**

ROTC (1.09)    **Often - Occasionally**    Non-ROTC (1.63)

**17. Criticize a specific act rather than a particular member of your unit**

ROTC (3.26)    **Often**    Non-ROTC (3.28)

**19. Do personal favors for persons under you**

ROTC (1.27) **Once in a while - Occasionally** Non-ROTC (1.96)

**23. Treat all persons under you as your equals**

ROTC (2.95) **Often** Non-ROTC (3.20)

**24. Be willing to make changes**

ROTC (3.19) **Often** Non-ROTC (3.29)

**28. Reject suggestions for changes**

ROTC (2.77) **Seldom** Non-ROTC (3.05)

**29. Change the duties of persons under you without first talking it over with them**

ROTC (3.19) **Once in a while** Non-ROTC (3.38)

**32. Stand up for persons under you, even though it makes you unpopular**

ROTC (3.24) **Often** Non-ROTC (3.39)

**33. Put suggestions made by persons in the unit into operation**

ROTC (2.57) **Occasionally - Fairly Often** Non-ROTC (2.78)

**34. Refuse to explain your actions**

ROTC (3.23) **Once in a while - Very Seldom** Non-ROTC (3.46)

**36. Act without consulting persons under you**

ROTC (2.17) **Occasionally - Once in a while** Non-ROTC (2.63)

**38. Insist that everything be done your way**

ROTC (2.47) **Occasionally - Seldom** Non-ROTC (2.75)

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<b>14. ABSTRACT</b> The United States Army is continually looking for ways to improve the training of its leaders. <i>FM 22-100, Army Leadership: Be, Know, Do</i> (1999), provides the foundation for the Army's leadership training. Its goal is to train leaders who can both accomplish the mission and take care of soldiers and their families. This project is investigating how individuals' leadership opinions may vary according to their year in the Reserve Officer Training Corps program and also compared to non-ROTC students of similar academic standing. Does the leadership training implemented in ROTC effect change in leadership opinions from the MS III (junior) to the MSIV (senior) cadets and do these opinions coincide with the Army's desires? Do the opinions stated by ROTC cadets differ from non-ROTC students? The leadership behaviors being investigated are those defined by Fleishman (1953, 1957): consideration and initiating structure. These leadership behaviors mirror the Army's "Mission First, People Always" motto. Taking care of soldiers and their families is consideration, while accomplishing the mission is initiating structure. The Leadership Opinion Questionnaire developed by Fleishman (1953), contains 40 questions (20 consideration, 20 initiating structure) measuring both elements. Both elements are independent, which means a leader can have varying levels of each (Fleishman, 1989).					
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