ABSTRACT

AN EVALUATION OF PERFORMANCE AS IT RELATES TO
LEADERSHIP TRAINING IN THE UNITED STATES
COAST GUARD

by

Chad Arron Long

Chair: Erich Baumgartner

ABSTRACT OF GRADUATE STUDENT RESEARCH

Dissertation

Andrews University

School of Education

Title: AN EVALUATION OF PERFORMANCE AS IT RELATES TO
         LEADERSHIP TRAINING IN THE UNITED STATES COAST GUARD

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Problem

Training programs that focus on leadership and management are becoming more
prevalent in society with little regard to the training's impact. This study's purpose was
to determine if there was a relationship between leadership training and performance in
the United States Coast Guard.

Method

The sequential mixed-method study examined the impact of a 33-day resident
training course on the graduate's performance. The measurement of performance was
obtained quantitatively through annual performance evaluations and qualitatively through
interviews. The performance evaluations were collected from 40 graduates of the Coast

Guard Chief Petty Officer Academy and analyzed using a repeated measure analysis of variance. The study spanned 4 years, collecting one pre-graduation evaluation and three post-graduation evaluations. For the qualitative portion of the study, four Chiefs were examined with interviews in an effort to expand on the impact of the leadership training.

Results

The results of this study indicated that leadership training significantly increased overall performance as measured through performance evaluation ($p < 0.01$). The portions of the performance appraisal that significantly increased were the leadership abilities and organizational responsibilities sections ($p < 0.01$), whereas the military protocol and professionalism section showed no significant increase ($p > 0.05$). Although leadership training positively impacted performance, the effect was found to be minimal.

Conclusion

The Chief Petty Officer Academy was designed to teach newly promoted Chiefs the leadership and communication skills they need to be successful in their new position. While it was not specifically designed to improve performance, it appears that it has that effect. The Chief Petty Officer Academy could capitalize on this positive effect by focusing aspects of its curriculum more directly on performance-enhancing training, making the program more beneficial to the United States Coast Guard.

Andrews University

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A Dissertation

Presented in Partial Fulfillment

of the Requirements for the Degree

Doctor of Philosophy

by

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CHAPTER I

INTRODUCTION

Training has assumed an ever-increasing status of importance in government and

industry. Technological advances and organizational complexity have created an

environment that forces a corporation to prepare its employees for current and future

developments. This corporate preparation has become extremely costly. In 2005,

employers in the United States spent $51.1 billion on education and formal training

(Dolezalek, 2005).

While expensive, the need for training is apparent to many managers. However,

the impact is often difficult to see. Most employers intuitively feel that training is

valuable yet never measure its benefit to the organization. Phillips (2003) explains,

> [Employers] logically conclude that training can pay-off in important bottom-line
> measures such as productivity improvements, qualities enhancements, cost
> reductions, and time savings. They also believe that training can enhance
> customer satisfaction, improve morale, and build teamwork. Yet, the frustration
> comes from the lack of evidence to show that the process is really working.
> While the payoffs are assumed to exist and training appears to be needed, more
> evidence is needed, or training funds may not be allocated in the future. (p. 2)

Over the past decade, there has been a large increase in the quantity of training

programs that focus on leadership and management. Many organizations are concerned

about the leadership inadequacies of their employees and, as a result, are committing to

education and training that deepens the skills, perspectives, and competencies of their

leaders (Conger & Benjamin, 1999). Gibler, Carter, and Goldsmith (2000) predicted that

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annual budgets for leadership training and development will continue to grow throughout the next decade as companies "recognize the shortage of talented managers, the importance of 'bench strength' and the need to widen perspectives in order to compete globally" (p. xii). This growth in leadership training will be short lived if there is little or no correlation between the money spent on training and performance improvement for the corporation.

All training programs within the United States Coast Guard compete against one another for limited funds. Leadership training programs are at a disadvantage because there is not a direct correlation between the money spent and return on investment. In an effort to adequately contend for future funding, the Coast Guard must see real organizational benefits from their leadership programs.

The solution to this impending crisis is to start evaluating leadership training through appropriate research. Sogunro (1997) describes the poor evaluation most leadership training programs receive in perfect detail:

> Once [leadership training] participants have left the training setting . . . program providers seldom attempt to determine the effects of their program, whether in the immediate, short, or long terms. Few have assessed impacts in terms of effectiveness and efficiency regarding cost and benefits to the funders; many lack assessment of impacts on participants of the program, especially through a combination of pretraining, during-training, posttraining and follow-up evaluation procedures; and most lack in-depth data-gathering strategies involving mixed research methods. . . . Often, evaluations are done at the end of the program with questionnaires, which provide very little information about the real effect of the program on participants' behavior on the job. (p. 714)

Like many other organizations, the Coast Guard has done very little research to evaluate the effectiveness of their leadership development programs. This lack of hard evidence on the benefits of leadership training puts the future of these programs at risk when they compete for limited funds within the organization. Once the Coast Guard has

enough substantiative data documenting the performance benefits of leadership training, there will be less of a threat of these programs being impulsively cancelled during periods of budget shortfall (Martineau, 2004). Alternatively, if leadership training does not prove effective in improving employee performance, the Coast Guard can also make an informed decision to invest in more effective programs.

Background

In an effort to understand the impact of this leadership development study within the United States Coast Guard it is important to be familiar with the history of the organization, its enlisted leadership training program, as well as its performance appraisal system. This section reviews the history of the Coast Guard, the Chief Petty Officer Academy, and the performance evaluation process used on enlisted members.

History of the United States Coast Guard

The United States Coast Guard, one of the country's five armed services, is also one of the most unique agencies in the federal government. Its history can be traced back to August 4, 1790, when the first Congress authorized President George Washington to have built and fitted out "so many boats or cutters, not to exceed ten, as may be necessary to employ for the protection of the revenue" (Johnson, 1987, p. 1). From these simple beginnings, the Coast Guard's history becomes more complicated as the responsibilities of five unique federal agencies were combined. These agencies, the Revenue Cutter Service, Lighthouse Service, Steamboat Inspection Service, Bureau of Navigation, and Life-Saving Service, were originally independent, but had overlapping authorities and had been shuffled around the government. In 1915, under an act of Congress, the

Revenue Cutter Service merged with the Life-Saving Service and was renamed Coast Guard. The other agencies were all finally united under the Coast Guard umbrella in 1946.

The Coast Guard is one of the oldest organizations of the federal government and until the Navy Department was established in 1798, it served as the nation's only armed force afloat. The organization has continued to protect the country throughout history and has proudly served in every one of the nation's conflicts.

In times of peace, the United States Coast Guard operates as part of the Department of Homeland Security, serving as the nation's front-line agency for enforcing our laws at sea, protecting our coastlines and ports, and saving lives. In times of war, or on direction of the President, the Coast Guard serves under the Navy in the Department of Defense.

<div align="center">History of the Chief Petty Officer Academy</div>

The United States Coast Guard Chief Petty Officer Academy (CPOACAD) was created to provide leadership training to senior enlisted personnel similar to the Army's Sergeants Major Academy. The foundation of this program was focused on developing common leadership training and was to act as the pinnacle of formal military schooling for the noncommissioned officer. The CPOACAD graduated its first class in 1982 from Coast Guard Reserve Training Center in Yorktown, Virginia. Class I consisted of six Master Chief Petty Officers (E-9) and four Senior Chief Petty Officers (E-8). As of June 2003, 138 classes totaling over 4,100 Chiefs have graduated from the Academy.

The Chiefs (E-7 and above) who attend the Academy represent both active-duty and reserve components and encompass all the Coast Guard's enlisted rates. Prior to

1995, attendance at the CPOACAD was voluntary. The class was originally designed for E-8s with desire to promote to E-9 as well as recently promoted E-9s. In 1995, attendance became mandatory for anyone who wished to be promoted to E-9.

The direction of the CPOACAD changed in 1998. This was the year the Coast Guard completed its Enlisted Career Development Program (Appendix A), which included the results of a Chief Petty Officer Needs Assessment. This report became the foundation used to create a new 33-day course now designed for recently promoted Chief Petty Officers. The focus of the course shifted from providing the skills and educational experience for promotion to Master Chief Petty Officer (E-9) to developing the managerial and leadership skills desired in a newly promoted Chief Petty Officer (E-7).

The Coast Guard announced this change in July 1998 and made attendance mandatory for all regular members advanced to E-7 on or after January 1, 1999 (USCG, 1998). At the same time it cancelled the previous requirement for all Coast Guard E-8s to complete the Chief Petty Officer Academy for advancement to E-9. A subsequent administrative change was made in June 1999 which stated that all active-duty and Reserve E-7s advanced on or after January 1, 1999, were required to successfully complete the Chief Petty Officer Academy or DOD Senior Enlisted Academy in order to be eligible to participate in the E-8 advancement process.

The basis of the new E-7-focused curriculum was to provide the knowledge, skills, attitudes, and abilities required of newly advanced Chief Petty Officer. The new CPOACAD syllabus was now focused on the transition from E-6 to E-7, the most critical transition in a Coast Guard enlisted career. The Academy's four curriculum terminal performance objectives (Appendix B) and major themes are:

1. Professionalism

2. Leadership

3. Communication

4. Systems Thinking and Lifelong Learning.

The American Council on Education (ACE) has reviewed the Chief Petty Officer Academy's curriculum and recommended the awarding of 3 semester hours in business communication (lower division baccalaureate/associate degree category) and 6 semester hours in organizational development (upper division baccalaureate category).

Each class consists of 64 students, divided into eight groups. Personal and professional growth is emphasized as students complete individual and group requirements, increase self-awareness through formal analysis and facilitated learning, and participate in community service events.

History of the Coast Guard's Enlisted Performance Evaluation System

The Coast Guard's initial enlisted employee review system was created in 1955. Prior to that there was no formal performance appraisal system for enlisted personnel. This first system was based on a 4.0 scale that measured the work performance of all enlisted members from pay grade E-1 through E-9. Patton (1984) explains the evaluation form consisted of three performance evaluation categories: Proficiency, Leadership, and Conduct. The Proficiency category measured an individual's performance on the job. The Leadership subsection of the evaluation form applied only to pay grades E-3 to E-9. It measured the personal qualities which one should possess in performing managerial responsibilities. The Conduct category measured the member's ability to conform to rules, regulations, and military standards. By the early 1980s the evaluation system had

become antiquated and it was determined by the Coast Guard Office of Personnel that it did not provide meaningful feedback on job performance (Patton, 1984).

A new enlisted performance evaluation system was created and implemented June 17, 1983. The specific focus of the new system was to:

1. Capture a valid and reliable assessment of the performance of enlisted members allowing the Coast Guard to promote and assign with a high degree of confidence

2. Provide feedback showing each member how well he or she was performing in the areas measured

3. Emphasize important Coast Guard values.

The selection of performance criteria and the development of performance standards were created by three project field panels, one for each pay grade group: E-1 to E-3 (Nonrated Personnel), E-4 to E-6 (Petty Officers), and E-7 to E-9 (Chief Petty Officers). The three panels provided over 130 personal performance characteristics, which were eventually streamlined into a total of 51 characteristics.

Nonrated personnel, Petty Officers, and Chief Petty Officers had many of the same characteristics assigned. Those characteristics that were the same or had the same meaning were given different performance standards to allow for the different responsibilities among pay grade groups. For example, the low, middle, and high standards for a Chief Petty Officer (E-7) were written higher than for a Seaman (E-3) because the organization expects a higher caliber of performance from the senior member (Patton, 1984).

The enlisted evaluation system was altered again in 1992. This change consisted of reducing the number of performance evaluation factors, primarily by grouping similar factors into a collective factor. During this change, outdated performance factors were removed and factors that better described the current climate in the Coast Guard were added (Table 1). This change reduced the total number of performance factors from 37 to 25.

An in-depth review of the enlisted performance evaluation form was completed on September 1, 1999. A Qualities Action Team (QAT) was formed to review the current evaluation form and make changes for a year 2000 revision. The QAT made many suggestions for the revision to include:

1. Changing the marking system from a 7-point to a 5-point scale

2. Adding new "Future Potential Factor"

3. Reducing performance criteria blocks

4. Updating terminology while creating clear and concise performance standards for each mark.

The QAT suggestions were not used by the Coast Guard. The enlisted evaluation form remained very similar to the 1992 version. The only significant change was the removal of advancement recommendation of "progressing" which was absorbed by "not recommended."

On October 1, 2005, the enlisted evaluation form was changed to its current configuration (USCG, 2005a). These changes sufficiently link the elements of the evaluation to the Coast Guard's 28 Leadership Competencies (Appendix C). For the Chief (E-7/8/9) form, this change merged the Organization and Monitoring Work

Table 1

Change in Enlisted Performance Evaluation Factors From 1985 to 1992 System

1985 performance evaluation factor	1992 performance evaluation factors
Military Factors	Military Factors (Military Protocol)
Grooming	Military Bearing
Uniform	Customs and Courtesies
Conduct	
Customs and Courtesies	Leadership Factors (Leadership Abilities)
	Directing Others
Team Factors	Working With Others
Respecting Others	Developing Subordinates
Promoting Team Efforts	Responsibility
Communication Skills	Evaluations
	Looking out for Others
Work Factors	Setting an Example
Specialty Knowledge	
Administrative Ability	Performance Factor (Organizational Responsibilities)
Determining Priorities	Professional/ Specialty Knowledge
Using Resources	*Professional Development*
Monitoring Work	Administrative Ability
Guidance Required	Organization
Keeping Supervisor Informed	Using Resources
Completing Tasks	Monitoring Work
Meeting Deadlines	Safety and Occupational Health
Enforcing Safety Standards	Stamina
Stamina	Communicating
Leadership Factors	Professional Qualities Factor (Professionalism)
Training Others	*Health and Well Being*
Providing Feedback	Integrity
Enforcing Standards	Loyalty
Evaluating People	Respecting Others
Directing Others	Human Relations
Looking out for Others	Adaptability
Setting an Example	
	Conduct Factor
Representing the Coast Guard Factor	Conduct
Courtesy	
Appearance	
Communicating	
Professionalism	
Even-handedness	
Adaptability	
Judgment	
Responsibility	
Loyalty	
Human Relations	
Integrity	
Sobriety	

Note. **Bold** indicates factor has been deleted from 1992 performance factors. *Italics* indicates factor has been added to 1992 performance factors.

elements into one element (Monitoring Work) in an effort to eliminate redundancies.

Additionally, Judgment and Initiative performance elements were added to both the Petty

Officer and Chief forms.

While these 2005 evaluation changes are important to the Coast Guard, they

occurred after the quantitative data for this study were collected. This study used only

the 1992 version enlisted evaluation forms.

Statement of the Problem

Coast Guard leadership training is primarily focused on expanding the capacities

of individuals. The development of skills and knowledge, changes in attitudes,

perspectives and behavior, and clarification of values and beliefs are all possible

outcomes. While these programs target the individual, the desired impact is improved

organizational effectiveness. There was surprisingly little reported systematic evaluation

of leadership training programs with organizational performance as an outcome

(Sogunro, 1997). The United States Coast Guard leadership training programs are not an

exception to Sogunro's study as they rarely assess the performance results of their

programs. The problem is that the Coast Guard has invested a lot of money into these

leadership programs without a clear picture on their organizational impacts.

Purpose of the Study

All training programs in the Coast Guard compete against one another for limited

funds. The leadership training programs are at a disadvantage because there isn't a

visible link between the money spent and performance improvement. This study's

purpose was to assess the relationship between Coast Guard leadership program

attendance and performance improvement. Specifically, the study focused on evaluating the impact of leadership training by examining the relationship between an individual's completion of the Coast Guard Chief Petty Officer Academy and their individual performance growth within the organization.

Conceptual Framework

The foundation for the conceptual framework in this study was built on Kirkpatrick's training evaluation model (1959a, 1959b, 1960a, 1960b). Alliger, Tannenbaum, Bennett, Traver, and Shotland (1997) describe Kirkpatrick's model as the most prevalent framework for evaluating training research. Although Kirkpatrick's model included four levels, this study was focused primarily on the fourth level, evaluating performance improvement. Evaluations were independently conducted by the CPOACAD for level 1, participant reaction, and level 3, learning transfer. Those summaries can be found in Appendix D. Unfortunately, there has been no level 2, measurement of student learning, information collected. Therefore, that information was absent from this study.

While Kirkpatrick's (1998) model was used as the foundation for this study, additional studies drive the main components of the conceptual framework model (Figure 1). The framework model was designed to prove that leadership training affects performance as measured though performance appraisals. The framework was built on four components with each building on the previous component.

The first component to the conceptual framework was that training leads to learning which ultimately leads to change in behavior (Hamblin, 1974). The belief that
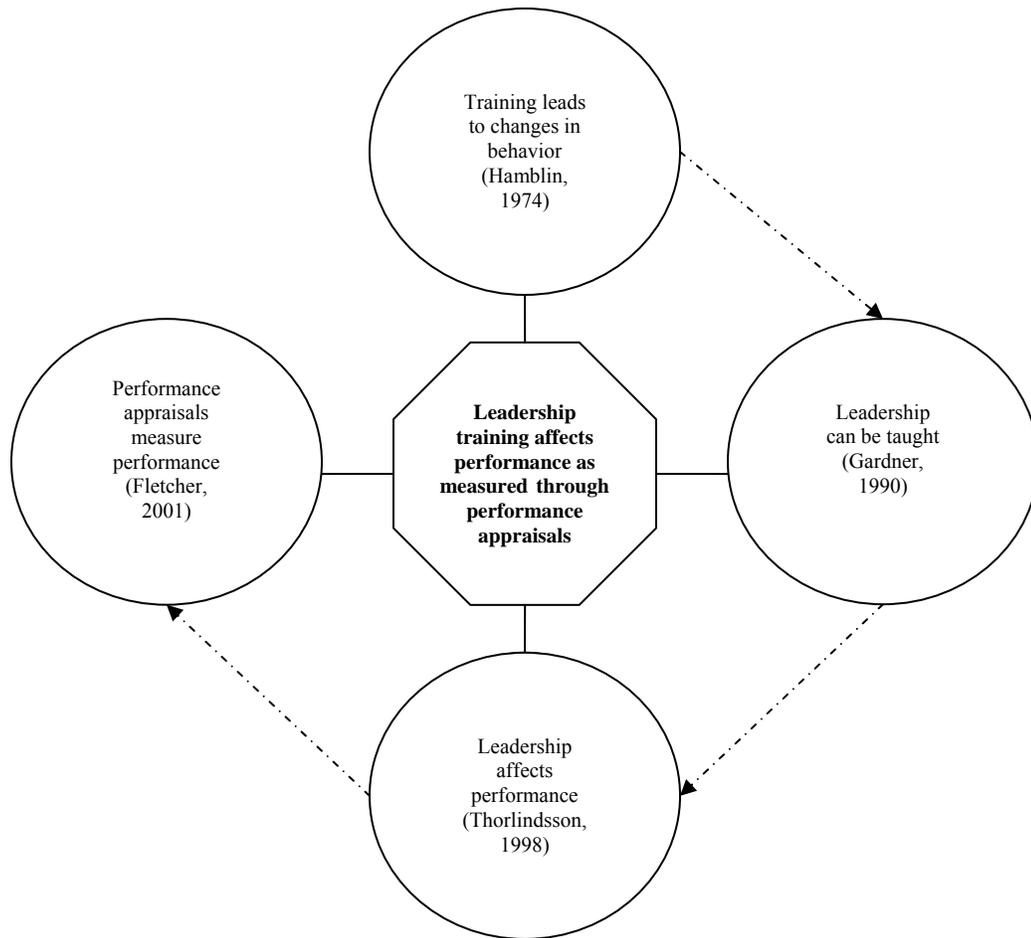
Figure 1. Conceptual framework model.

training leads to behavioral changes was a fundamental factor to showing an increase in

performance. The next component was the principle that leadership can be taught

(Gardner, 1990). This builds on the first component to show that through leadership

training an individual's leadership skill level will be enhanced, ultimately making them a

better leader. The third element of the conceptual framework for this study was that

leadership affects performance (Thorlindsson, 1988). As these individual sections build upon one another, it was apparent that leadership training could have an effect on performance. The fourth component of this framework adds the measurement tool for calculating the performance change. Fletcher (2001) explains that performance appraisals measure an individual's performance. In this study performance appraisals were used to evaluate a change in performance. The assumption that performance appraisals measure performance can be used to conclude that comparing consecutive performance appraisals will show an individual's change in performance.

As these different components were combined, the conceptual framework for this study was developed. When united, the four individual elements describe how leadership training affects performance as measured through performance appraisals.

Research Questions

This study was formulated around an overriding research question and six support research questions. This study focused on answering the six support research questions in an effort to answer the overriding question.

Overriding Research Question. In what ways does the Coast Guard CPOACAD affect its graduates?

Research Question 1. Is there a relationship between graduation from the CPOACAD and performance as documented by yearly performance evaluations (overall performance)?

Research Question 2. Is there a relationship between graduation from the CPOACAD and performance as documented by yearly performance evaluations (leadership abilities section)?

Research Question 3. Is there a relationship between graduation from the CPOACAD and performance as documented by yearly performance evaluations (professionalism section)?

Research Question 4. Is there a relationship between graduation from the CPOACAD and performance as documented by yearly performance evaluations (organizational responsibilities section score)?

Research Question 5. Is there a relationship between graduation from the CPOACAD and performance as documented by yearly performance evaluations (military protocol section)?

Research Question 6. How do graduates of the CPOACAD view their change in performance?

Significance of the Study

Survey results indicate that academicians and practitioners alike agree that leadership is a very important topic within the realm of organizational behavior (Rahim, 1981; Gibler et al., 2000). Leadership training has significantly increased in popularity since the late-1990s. Despite the increase in training, there was very little research to evaluate the effectiveness of these leadership development programs. Leadership training has been viewed as something that was good for an organization, but there was not much data to back up this claim. Many organizations are concerned that they are mistakenly shifting their training away from traditional programs that provide information and skills that can immediately be applied on the job (Egan, 1999).   The primary significance of this study was to provide the Coast Guard an objective analysis on the performance effects of the CPOACAD. With this information, the Coast Guard

can make informed training budgetary decisions in the future. In addition to the financial ramifications, this study also has a curriculum impact. If the Coast Guard Leadership Development Center (LDC) views the study results as positive, many of the CPOACAD curriculum concepts could be used in other leadership development programs. Additionally, if the results are viewed negatively, the Coast Guard LDC could make potential curriculum modifications on the CPOACAD to better align the training with their expectations.

Delimitations

The CPOACAD has graduated over 4,100 Chiefs in the last 20 years. The convenience sample for this study was focused on the 399 graduates from 1999. The CPOACAD curriculum changed significantly at the end of 1998. Therefore, graduates from previous classes may not show the same results. The new position may be of greater or lesser responsibility and may affect their performance evaluation. The same supervisor did not normally fill out the performance evaluations over the 4-year period of the study, and variations in evaluations were expected.

Limitations

All input from performance reviews in this study had to be retrievable from People Soft. If an individual's records had been purged from the People Soft database, their performance reviews were not retrievable. Upon graduation from the CPOACAD, the Chiefs may return to their previous job, or be transferred to a new position. The sample data consist of performance reviews for the 1 year prior to graduation from the Chief Petty Officers Academy to 3 years after graduation, a 4-year study. The sample

used data from Chief Petty Officers (E-7). If an individual was promoted at any point during the 4-year study they were eliminated from the sample. The exclusion of promoted enlisted members was based on supervisors recalibrating evaluation scores when an individual was compared against a new peer group.

This study provides empirical support on the long-term benefits of leadership development training in the United States Coast Guard. This study shows the long-term effects of leadership training on individual performance. While organization performance was implied by individual performance in some studies, this study did not make that assumption. The organizational impact of individual performance was outside the scope of this research.

Definition of Terms

The following definitions and descriptions are provided to eliminate context questions and describe otherwise unfamiliar acronyms.

Active Duty (AD): Sailors and officers who are part of the Regular Coast Guard; typically report for duty daily.

Chief: Enlisted member who holds one of the following pay grades: E-7, E-8, or E-9. Additionally, Chief is used as an abbreviation for Chief Petty Officer (E-7).

Chief Petty Officer Academy (CPOACAD): The academy designed to provide newly advanced Chiefs the professional growth and training necessary to succeed as Chief Petty Officers.

Commissioned Officer: All graduates of the Coast Guard Academy (4-year military college) or Officer Candidate School. These graduates become Ensigns (O-1

pay grade) in the United States Coast Guard. Officers supervise all enlisted personnel and warrant officers.

Department of Defense (DoD): The United States department was created in 1789, originally called the War Department. The department consists of the Army, Navy, Marines, and Air Force. Its primary missions are national security and defense.

Department of Homeland Security (DHS): The United States cabinet position and department were created with one single overriding responsibility: to make America more secure. It has three primary missions: prevent terrorist attacks within the United States, reduce America's vulnerability to terrorism, and minimize the damage from potential attacks and natural disasters.

Direct Access: An electronic database used to store all enlisted performance reviews for the United States Coast Guard. This term can be used interchangeably with People Soft.

E-6: Pay grade for a Petty Officer first class; enlisted person who leads a group of approximately 5 to 10 subordinates on a daily basis.

E-7: Pay grade for a Chief Petty Officer; enlisted person who leads and handles administrative functions for a group of approximately 20 subordinates on a daily basis; acts as a conduit of communication between the enlisted personnel and officers.

E-8: Pay grade for a Senior Chief Petty Officer; enlisted person who leads and handles administrative functions for a group of approximately 40 subordinates on a daily basis; acts as a conduit of communication between the enlisted personnel and officers.

E-9: Pay grade for a Master Chief Petty Officer; enlisted person who leads and handles administrative functions for a group of approximately 100 subordinates on a

daily basis; acts as a conduit of communication between the enlisted personnel and the Commanding Officer.

Enlisted: Graduates of Recruit Training (Boot Camp). All graduates become enlisted members (E-2 pay grade) of the United States Coast Guard.

Leadership: The Coast Guard definition of leadership is "the ability to influence others to obtain their obedience, respect confidence, and loyal cooperation." This definition is found in the Coast Guard Commandant Instruction M5351.3 (Leadership Development Framework) and will be the definition of leadership used for this study.

Leadership Abilities Section: The leadership section of the enlisted performance evaluation.

Leadership Development Center (LDC): The Coast Guard division responsible for the Chief Petty Officer Academy

Military Protocol Section: The military section of the enlisted performance evaluation.

Noncommissioned Officer: Enlisted sailor who has attained the rank of E-4 or above. First-line leaders in the United States Coast Guard organization.

Organizational Responsibilities Section: The performance section of the enlisted performance evaluation.

Overall Performance: The total of all sections in the enlisted performance evaluation.

People Soft: An electronic database used to store all enlisted performance reviews for the United States Coast Guard. This term can be used interchangeably with Direct Access.

Performance Evaluation: Annual (E-7 and above) or semi-annual (E-6 and below) evaluations are given to all enlisted personnel. The evaluation provides the supervisor an opportunity to grade their subordinates on approximately 20 categories ranging from professional competence to military bearing. The graphic rating scale evaluation is numerical and used for promotion purposes.

Petty Officers: Enlisted members who hold one of the following pay grades: E-4, E-5, or E-6.

Professionalism Section: The professional qualities section of the enlisted performance evaluation.

Rate: Grade of official standing of enlisted personnel; reflects levels of aptitude, training, experience, knowledge, skill, and responsibility; similar to job title in the civilian community.

Reserve: Sailors and officers who are not part of the Regular Coast Guard. Typically, they report for duty 1 weekend a month and 2 weeks a year.

Seaman (E-3): Enlisted personnel without a rate, or nonrated; usually a graduate of boot camp waiting specialized training for specific rate.

Sergeants Major Academy: United States Army leadership training for senior noncommissioned officers in a staff or administrative position.

United States Coast Guard (USCG): A military, multi-mission, maritime service and one of the nation's five Armed Services. Its mission is to protect the public, the environment, and U.S. economic interests in the nation's ports and waterways, along the coast, on international waters, or in any maritime region as required to support national security.

Warrant Officer: Prior enlisted person who leads and handles administrative functions for a group of approximately 100 subordinates on a daily basis. This officer acts as a conduit of communication between the enlisted personnel and commissioned officers. Warrant officers are senior to all enlisted personnel and junior to all commissioned officers.

Summary

This study provides empirical support on the long-term benefits of leadership development training in the United States Coast Guard. The following chapters follow a traditional research sequence. Chapter 2 discusses relevant literature giving a detailed discussion on leadership training and evaluation research. Chapter 3 reviews the methodology for this study, while chapter 4 displays the results of this research. Lastly, chapter 5 discusses the findings and presents suggestions for further research.

CHAPTER II

REVIEW OF LITERATURE

This study examines the long-term benefits of leadership development training in the United States Coast Guard. The study concentrated on the following areas in a review of the literature, which was divided into three sections: (a) understanding leadership, (b) training leaders, and (c) evaluating leadership training. The first section provides a background to leadership theory. The next section reviews literature on the fundamentals of leadership education and training. The last section examines the methods used to evaluate leadership training. A succinct summary of the three sections concludes the chapter.

Understanding Leadership

Leadership is a complex phenomenon. This becomes evident when one examines the terminology and theories used to conceptualize leadership and describe its many dimensions.

Leadership Terminology

Through the ages, scholars have had a difficult time getting a theoretical grasp on the word *leadership*. Stogdill (1974), followed by Bass (1990), analyzed thousands of studies on the topic of leadership. Stogdill noted that "the endless accumulation of empirical data has not produced an integrated understanding of leadership" (p. vii). An

investigation of leadership research published in *Leadership Quarterly* from 1994 to 2003 found a wide variety of leadership definitions and no explicit patterns or evolutions of a single definition over time (Martin & Ernst, 2005). Leadership may be defined in many ways. Lohmann (1992) defined leadership around the concept of trust with "the formulation of a vision, developing a climate of trust within the organization, and empowering others" (p. 59). Leadership can also be defined around influence, as a process whereby individuals influence groups of individuals to achieve a shared goal or commonly desired outcomes (Northouse, 1997). Rost (1993) examined a total of 587 studies that referred to leadership in their titles and found that 366 of them did not even specify a definition of leadership. Through his studies, Rost eventually settled on a definition for leadership that best explained its complexity by adding the component of change. "Leadership is an influence relationship among leaders and followers who intend real changes that reflect their mutual purposes" (p. 102). The United States Coast Guard has a more authoritarian definition for leadership. They define it as "the ability to influence others to obtain their obedience, respect, confidence, and loyal cooperation" (USCG, 2006, p. 1). Although the field of leadership has developed since Stogdill's research, it is still a field that is "riddled with paradoxes, inconsistencies, and contradictions" (Klenke, 1993, p. 112).

Leadership Theories

The confusion that encompasses the field of leadership can be traced to the complexity and opposing directions of leadership theories. To have an appreciation for the convolution that surrounds leadership, a historical review of leadership theories need to briefly be examined.

Great Man Theory

In general, leadership theories have been built around astute observations and assumptions (Bass, 1990). The first leadership studies were based on the study of people, mostly men, who were already great leaders. At first, leaders were primarily seen as coming from aristocratic families and there was a notion that leadership had to do with breeding. Wiggams (1931) claims that when the survival-of-the-fittest concept was combined with intermarriage among the nobles, a class of society that is biologically different and more advanced was produced. Great Man theory was based on the assumption that leaders are born, not made. A second assumption was that great leaders arise when there is great need.

James (1880) asserts that the foremost changes in society were due to great men. They initiate movements and prevent others from leading society in a different direction. Examples of this concept can be found throughout history, from Moses leading the Jews out of Egypt, Eisenhower's military leadership in WWII, to more recent events with Giuliani's leadership in New York after the 9-11 attack on the World Trade Center (Guiliani, 2002). While the individuals who make up society possess different levels of intelligence, energy, and moral force, they are always led by a superior few (Dowd, 1936).

Trait Theory

Building on the Great Man theory, if leaders were endowed with superior qualities that separate them from their followers, researchers assumed it could be possible to identify these qualities. This concept gave rise to the trait theory of leadership (Kohs & Irle, 1920). Pure trait theory focused on three fundamental assumptions. Individuals

are born with inherited traits, some traits are particularly suited for leadership, and people

who make good leaders have the right, or sufficient, combination of traits. Until the mid-

1940s, trait leadership literature focused on identifying what traits distinguished leaders

from other people and to what extent these differences were significant (Bird, 1940). The

studies examined almost every trait conceivable including: physical traits, intelligence,

liberalism/conservatism, excitability, humor, and originality. Stogdill (1948) completed a

survey of all the available leadership trait studies in an effort to shed light on this field of

study. Bass (1990) describes Stogdill's findings:

> A person does not become a leader by virtue of the possession of some
> combination of traits, but the pattern of personal characteristics of the leader must
> bear some relevant relationship to the characteristics, activities and goals of the
> followers. Thus, leadership must be conceived in terms of the interaction of
> variables that are in constant flux. (p. 76)

Stogdill's research explained that for every trait that was deemed important for a leader to

own, there were multiple examples of great leaders who did not possess the trait and

many non-leaders who did possess the attribute. Stogdill's 1948 study temporarily

stopped the trait leadership debate and directed subsequent research into the study of

leadership behaviors. It is important to note that the trait leadership theory did not expire

with this study, it just lost popularity. Stogdill (1974) completed a follow-up study in

1974 which brought life back to this theory and will be discussed in the leadership

dimension section of this literature review.

Behavior Theory

The behavior, or style, theory of leadership was developed at the Ohio State

University and the University of Michigan in the late 1940s. This theory was a reaction

to Stogdill's 1948 trait study and focused on what leaders do, not what inborn traits or

capacities they possess (McCall, Lombardo, & Morrison, 1988). The theory was based on two assumptions. The first is that leaders can be made and is not a set of innate traits received at birth. Second, successful leadership is based on definable and learnable behavior. Klenke (1993) explained that the behavior theory allowed all people the opportunity to become a leader by learning a set of behaviors, by participating in leadership situations, or by seeking leadership development opportunities, rather than developing personality traits.

Situational Theories

In the late 1960s, two new theories, contingency and situational, were developed that moved beyond just examining a leader's behaviors or traits. The contingency theory (Fiedler, 1967) is a class of behavior theory that contends that there is not one best way of leading and that a leadership style that is successful in one situation may not be successful in another. Fiedler explains that some leaders are more task-oriented while others are more relations-oriented and the key to successful leadership is developing a work environment that supports their style or they adjust their style. The contingency theory assumption is that the leader's ability to lead is contingent upon various situational factors, including the leader's preferred style, and the behaviors of the followers.

The situational theory of leadership (Hersey & Blanchard, 1969) is similar to Fiedler's contingency theory as both are situationally based. While Fiedler's theory looked solely at the leader's task- or relationship-orientation, situational leadership examined leadership styles in view of the development level of the follower. The motivation and the capacity of the follower is the primary driver of the leader's behavior under the situational theory (Northouse, 1997). As a subordinate's maturity and

knowledge levels increase, the supervisor moves from a "telling" behavior all the way to a "delegating" behavior. While situational leadership theory draws on behavior theory, it is important to see that its focus is on when to use which behavior with followers at different levels of readiness.

Interactive Leadership Theories

Three of the building blocks of most leadership theories are trait, behavior, and situational aspects. There are many complex and hybrid leadership theories that expand on components of the fundamental three theories. For example, leader-role theory brings together trait and situational theory to explain that "the characteristics of the individual and the demands of the situation act in such a manner as to permit one or perhaps a few persons to emerge as leaders" (Bass, 1990, p. 44). Path-goal theory (House, 1971) describes how leaders motivate subordinates to accomplish designated goals and emphasize relationships between the leaders' style and situational variables in the organization (Yukl, 2006). This theory brings together the interactive properties of the situational and behavioral theories. There are many additional leadership theories, which bring together two or more of the theories, but the popularity of transformational leadership demands more detailed attention.

Transformational Leadership

To completely understand transformational leadership, transactional leadership must first be explained. A transactional leader motivates through reward and punishment where a trade or transaction is made for the followers' support. The transactional leader works through creating clear structures whereby it is understood what is required of their

subordinates, and the rewards that they get for following orders. Punishments are not always mentioned, but they are also well-understood and formal systems of discipline are usually in place. Under transactional leadership, there is a virtual contract between the leader and follower that states the follower cedes all authority to the leader and is willing to do what the leader requests. Transactional leadership should not be viewed as negative; it is just a relationship between a leader and follower that is more focused on performing work than the growth, development, and understanding of the follower. Burns (1978) presented an alternate to transactional leadership called transformational leadership. He explained that a transformational leader asks followers to transcend their own self-interest for the good of the group or organization. To make this change, the followers need to consider the long-term needs to develop themselves rather than just react to the needs of the moment, ultimately becoming aware of what is truly important. Transformational leaders inspire their followers to reach new heights and achieve great things. This leadership theory interweaves trait, behavior, and situational leadership theories.

Transformational leadership is built on four fundamental factors (Bass, 1985). The factors are charismatic leadership, inspirational leadership, intellectual leadership, and individual consideration. Charismatic leadership is the personal display of charm and grace that attracts followers with a level of admiration. Inspirational leadership sends a clear message of purpose and mission to the followers. It gives them a sense of passion and confidence to achieve their goals. Intellectual leadership gives the followers an idea that the leader is more interested in ideas than in process. A transformational leader looks to their followers to be part of the problem-solving effort not just an end-user

following direct orders. Individual consideration is a level of empathy created by the leader who cultivates intense one-on-one relationships with their followers. This individual attention keeps the follower motivated and constantly engaged with the organization's mission.

These four fundamental factors work together to create a transformational leadership effect. Bass (1990) completed an extensive study on 1,500 general managers, leaders of technical teams, government and educational administrators, and senior U.S. Army officers. He found that (a) transformational leaders were judged to have better relationships with their superiors, (b) subordinates stated they exerted extra effort for these leaders, and (c) the organizations they led were more likely judged to be highly effective.

Leadership Dimensions

When reviewing the positive effects of transformational leadership, it is understandable that many organizations are interested in attracting these types of leaders (Sansone & Schreiber-Abshire, 2006). In this regard, the Coast Guard is no different from most commercial organizations as it is always looking to recruit and promote individuals with transformational leader characteristics. Three of the four transformational leadership factors can easily be located within the Coast Guard's 28 leadership competencies. These leadership competencies are the knowledge, skills, and expertise the Coast Guard expects of its leaders.

The Coast Guard wants inspirational leaders who "persuade and motivate others to achieve the desired outcome [and] create change" (USCG, 2006, p. 3.9). They also desire intellectual leaders.

> The Coast Guard leaders react to crises immediately and routinely solve urgent problems. [T]he [leader] must also consider multiple time horizons and very complex interactions. This requires thinking strategically, which consists of adopting a systems view, focusing on intent – what are we really trying to accomplish?, thinking across time horizons, creating and testing hypotheses, and being intellectually opportunistic – taking advantage of current conditions. (USCG, 2006, p. 3.28)

Additionally, the Coast Guard wants a leader who is willing to provide individual attention to their subordinates, when appropriate. "Drawing on their experience and knowledge, leaders deliberately assist others in developing themselves . . . and help identify professional potential, strengths, and areas of improvement" (USCG, 2006, p. 3.13).

The Coast Guard has no component for charismatic leadership in its desired leadership competencies. The Coast Guard's desire to have transformational leaders is based on a fundamental concept of military leadership (Sashkin & Rosenbach, 2000). In the military, it is understood that the leader's subordinates are the future of the organization. The subordinates must be trained and developed to one day take the leader's position.

There are many dimensions, traits, and behaviors, which combined make an individual a transformational leader. As mentioned earlier, Stogdill completed a follow-up study on leadership traits. The new study found that certain traits and characteristics actually increased a leader's chance of success (Van Fleet & Yukl, 1986). Trait theory changed its focus from finding universal leadership traits to locating characteristics that contributed to a person's success as a leader in a wide variety of situations. These characteristics are no longer strict traits, but are now a mix of both traits and behaviors. Stogdill's 1974 study is the largest and most referenced study on traits and behavior

(Bass, 1990). For the purpose of this study, the leadership characteristics in Stogdill's

1974 study will be called leadership dimensions.

Admiral James Loy, the retired Commandant for the Coast Guard, wrote a book

with Donald Phillips about leadership in the Coast Guard called *Character in Action: The*

U.S. Coast Guard on Leadership. In this book, the authors discuss recruitment in the

Coast Guard stating, "Coast Guard recruiters search for people who have a predisposition

for strong leadership. . . . It is imperative to choose people who already have certain traits

that allow them to more naturally fit into [the organization]" (Phillips & Loy, 2003, p.

19). The Coast Guard looks for certain characteristics when it recruits new members as

well as when it assesses promotion. The Coast Guard uses the Enlisted Performance

Evaluation System to examine the performance and leadership abilities of its enlisted

members in an effort to promote the best in the organization (Patton, 1984).

The 24 Chief Petty Officer evaluation categories closely mirror the 28 leadership

competencies earlier compared to transformational leadership factors. When the Chief

Petty Officer evaluation categories are compared against Stogdill's leadership dimensions

(Table 2), it is apparent that there is a strong relationship between the two. Twenty of the

24 enlisted evaluation categories match up with one of Stogdill's dimensions. The only

exceptions are safety and occupational health, evaluations, work-life sensitivity/expertise,

and customs and courtesies. While these characteristics are important to the Coast Guard

on an organizational level, they have little to no connection to leadership literature.

Additionally, there are some leadership dimensions that are not encompassed by the

Coast Guard performance evaluation form. Characteristics such as creativity, self-

Table 2

Leadership Dimensions: Stogdill's Survey of Findings Compared to Coast Guard Performance Evaluation Categories

Coast Guard Evaluation Categories	Leadership Dimensions
Organizational Responsibilities Section	
Professional Specialty Knowledge	Knowledge
Professional Development	Education
Administrative Ability	Administrative Ability
Organization	Task Organization
Using Resources	Resourcefulness
Monitoring Work	Responsibility in the pursuit of objectives
Safety and Occupational Health	----
Stamina	Persistence against obstacles
Communication	Fluency of speech
Leadership Abilities Section	
Directing Others	Dominance
Working with others	Cooperativeness
Developing subordinates	Nurturance
Responsibility	Drive for Responsibility
Evaluations	----
Work-life Sensitivity/ Expertise	----
Setting the Example	Maintaining a standard of performance
Military Protocol Section	
Military Bearing	Appearance/ Grooming
Customs and Courtesies	----
Professionalism Section	
Health and Well Being	Activity/ Energy
Integrity	Personal Integrity
Loyalty	Belonging, Identification, and Loyalty
Respecting Others	Tolerance of follower's freedom of action
Human Relations	Diplomacy
Adaptability	Adaptability

Note. **Bold** indicates that an evaluation category matches up with one of Stogdill's leadership dimensions. Coast Guard evaluation section headings are given in *italics*. The data in column 2 are from *Bass & Stogdill's Handbook of Leadership*, by B. M. Bass, 1990, New York: Free Press. Copyright 1990 by the Free Press. Adapted with permission.

confidence, enthusiasm, and sociability are some of the important leadership dimensions in the literature that are not part of the Coast Guard performance evaluation.

As a military organization, the Coast Guard has a slightly different, more authoritarian view on leadership. While the preferred Coast Guard leader is transformational, there are times that a transactional leadership philosophy is necessary to complete a mission. The future of Coast Guard leadership is not based on these transactional experiences, but on the transformational characteristics of its leaders.

Impact of Leadership

History has shown time and again that leadership does make a difference. Examples can be cited in which brilliant military leaders have won battles against superior forces and where dedicated managers have turned around failing organizations (Iacocca & Novak, 1984; Puryear, 2003). Thorlindsson's (1988) study of over 200 nearly identical ships in the Icelandic herring-fishing fleet is a prime example of the outstanding effect of leadership on performance. These ships, usually with an 11-man crew, compete for the herring catch under identical conditions. Thorlindsson found that the captains accounted for 35 to 49% of the variation of the catch over a 3-year period. Since the effectiveness of a leader has frequently determined the survival or demise of a group, organization, or entire nation it seems logical that training would be imperative to all corporations.

Training Leaders

Given the need of so many organizations, including the Coast Guard, to develop leaders exemplifying strength in all leadership dimensions, the question arises whether

they can be developed through training. This section looks at research on the impact of training. It specifically reviews leadership training terminology, learning and leadership training, teaching leadership, purpose of leadership training, and leadership training effectiveness.

<div align="center">Leadership Training Terminology</div>

Training is defined as the effective and continuing application of newly acquired skills (Broad, 1997; Ford & Weissbein, 1997; May & Kahnweiler, 2000). But training differs from education. Swanson and Torraco (1995) explain that "education is for rounding out of the individual and the good of the society; it is general, provides background, increases understanding. Training is for the good of [industrial] plant production – it is a way to solve production problems through people; it is specific and helps people acquire skill through the use of what they learned" (p. 2). Education is for creating a better person, while training is for creating new skills in the current person. Education is less concerned about skill transfer, while this transfer is the primary focus of most training programs. Leadership training is somewhat of an enigma. Leadership training lies somewhere between traditional education and training programs.

The confusion that encompasses the definition and study of leadership has been transferred to the study of leadership training (Day, 2000). Current literature often refers to leadership training as leadership education, managerial leadership development, management development, leadership development, leadership skills development, leadership skills training, leader development, or just leadership training (Babitch & Chinsky, 2005; Bell, 2006; Collins & Holton, 2004; Corrigan, Lickey, Campion, & Rashid, 2000; Lingham, Richley, & Rezania, 2006; Rees & Porter, 2006).

Leadership development is primarily described as "the expansion of a person's capacity to be effective in leadership roles and processes" (McCauley, Moxley, & Van Velsor, 1998, p. 4). Leadership skills training often has a more specific definition. Corrigan et al. (2000) define it as "skills for transformational leadership includ[ing] inspiration, intellectual stimulation, individualized consideration, participative decision making, and elective delegation" (p. 56). The other leadership training characterizations have a wide variety of definitions from very specific to very vague, depending on the author and specific program. Additionally, the descriptions also have major inconsistencies as some definitions discuss the expansion of a person's leadership capacity and performance over a lifetime whereas others defined it as a short-term developmental event.

Klenke (1993) believes that the distinction between leadership education, leadership training, leader development, management development, leadership skills training, leadership development, and managerial leadership development is often blurred. Leadership training programs differ significantly between organizations, but these differences are not necessarily directly related to their program's title. The Coast Guard's Chief Petty Officer Academy is classified as a leadership development program, but will be referred to as leadership training throughout this study.

<div align="center">Learning and Leadership Training</div>

In an effort to better understand leadership training programs, the concept of learning must be briefly explored. Driscoll (2000) defines learning as a "persisting change in performance or performance potential that results from experience and interaction with the world" (p. 3). While there are numerous theories on learning

discussing everything from the source of knowledge to the relationship between the learner and their environment, the Coast Guard is predominately focused on adult learning (Kolb, 1984) emphasizing primarily a behaviorist and cognitive approach to training and embracing a transformational model of learning.

Kolb's model is one of the most common adult, or experiential, learning models (Wagner, 1999). The Kolb model is based on four elements often arranged in a cycle: (a) concrete experience, (b) observation and reflection, (c) the formation of abstract concepts, and (d) experimental testing in new situations. Kolb and Fry (1975) argue that the learning cycle can begin at any one of the four points and that it should really be approached as a continuous spiral. However, it is suggested that the learning process often begins with a person carrying out a particular action and then seeing the effect of the action. Kolb goes on to explain that the learner must understand the effects of the action and then formulate a principle under which the particular instance falls. This learning model can be used to make sense of any concrete experience.

The Coast Guard uses Kolb's model along with three orientations towards learning in its training: behaviorist, cognitive, and humanistic (Merriam, Caffarella, & Baumgartner, 2006). Of these three orientations, the Coast Guard training programs focus primarily on the behaviorist and cognitive orientations. The humanist orientation, where the learner moves towards fulfilling their potential by developing the whole person (Tennant, 1997), is important to the Coast Guard, but not specifically the focus of most instruction. Coast Guard training is principally focused on changing behaviors and increasing skills. Coast Guard entry-level training programs such as recruit training (boot camp) and officer candidate school are primarily behaviorist orientation. Their focus is

to produce appropriate behavior changes in the new members in an effort to acclimate the new recruits into their new military work environment. Theorists such as Thorndike (1913) and Skinner (1938) have completed extensive research on the stimulus-response theory of learning. This stimulus-response theory of learning has expanded and matured since its introduction and is now a major component of learning and training programs. One example is Hamblin's (1974) view on training as learning leading to changes in behavior, an approach still popular today.

While behaviorists look at the learner's environment, the cognitive orientation to learning is focused on an individual's mental processes (Hartley, 1998). The cognitive orientation to learning is focused on information processing, memory, and mental development. The Coast Guard's training and education programs are very focused on knowledge and skill building. While these three orientations of learning are presented separately, the practical application of these theories will explain the true connectivity between the orientations.

When developing a successful training program, behaviorist, cognitive, and humanistic learning orientations need to be combined. It is difficult to change behaviors if you do not provide additional knowledge that inspires the transformation. The effectiveness of formal training programs depends greatly on how well they are designed and how they encompass multiple aspects of learning (Yukl, 2006). When deciding what type of training program to use, the developer must consider the topic of the training. There are a large variety of methods that have been used successfully for leadership training (Burke & Day, 1986). Lectures, demonstrations, case studies, simulations,

videotapes, role playing, and group exercises are used to learn leadership conceptual and interpersonal skills.

Two of the most popular techniques for leadership training are behavior role modeling and case discussion (Yukl, 2006). Behavior role modeling is actually a combination of two older training methods, demonstration and role playing. This process is used to enhance interpersonal skills by demonstrating how to handle a particular problem and then allowing the learner the opportunity to apply the principle in a similar situation. Many researchers (Burke & Day, 1986; Smith-Jentsch, Salas, & Baker, 1996) found this to be a very effective method for training managers, but other researchers feel the method is too inflexible and does not promote adaptive behavior (Robertson, 1990). To ensure the success of this technique, the instructors must educate the students on the general principles on which the behavior model is based.

Similar to behavior role modeling, case discussions are very prevalent in leadership training. Case discussions are detailed descriptions of events in the organization presented in a manner that allows the learner to make leadership decisions. The students develop recommendations on how they would solve the problem, which are then evaluated and compared to what was actually done by the organization (Yukl, 2006). There is little research on the effectiveness of using cases for leadership training, yet it still remains very popular in most training programs. The Coast Guard Chief Petty Officer Academy uses behavior role modeling, case discussion, group exercises, lectures, and procedural manuals in its formal training program.

Many residential leadership training programs look to capitalize on the vast experience of the leaders in the training program through informal education. Formal

education is the classroom-based training provided by teachers, while informal education

is what happens outside the training environment. Group projects, community

involvement, and interpersonal relationships allow the educational experience to flow

outside the ridged constraints of the classroom. This freedom allows the situation to drive

the curriculum, unlike formal education where the curriculum drives the experience (Jeffs

& Smith, 1996). The Coast Guard Chief Petty Officer Academy is a mixed program

using both formal and informal training.

Organizations in the United States invest over $50 billion a year on education and

formal training (Dolezalek, 2005). This money is spent with the hope that the

participants will move beyond gaining factual knowledge alone to instead become

changed by what they learn in some meaningful way. These programs are looking for a

transformation in the learner. Mezirow (2000) developed the theory of transformational

learning out of his perspective on transformation theory. Transformational learning can

be defined as

> a deep, structural shift in the basic premises of thought, feelings, and actions. It is
> a shift of consciousness that dramatically and irreversibly alters our way of being
> in the world. Such a shift involves our understanding of ourselves and our self-
> locations; our relationships with other humans and with the natural world; our
> understanding of relations of power in interlocking structures of class, race and
> gender; our body awarenesses, our visions of alternative approaches to living; and
> our sense of possibilities for social justice and peace and personal joy.
> (O'Sullivan, 2003, p. 324)

Transformational learning goes beyond just learning and applying the material presented

outside the training environment. It is the learner's ability to change their frame of

reference by critically reflecting on their assumptions and beliefs in a way that redefines

their world (Mezirow, 2000). Critics of this theory believe that it places too much

emphasis on critical reflection on the learning process (Cranton, 1997). Nevertheless,

this theory is very prominent in adult education and embraced by the Coast Guard Chief

Petty Officer Academy.

Teaching Leadership

On a conceptual level, leadership training is built on two fundamental premises.

The first is that human beings are capable of learning, and the other is that leadership can

be taught. While few people question that humans can learn, some still doubt whether

leadership can be taught. Those who do not believe it can be learned view leadership as a

set of innate abilities and advocate the view that great leaders are "born, not made,"

similar to the Great Man theory of leadership. Fortunately for those not well endowed

with the natural qualities of a successful leader, social science has repeatedly

demonstrated that leadership can be taught (Horner, 1995). John Gardner, an eminent

scholar, author, and counselor to six United States presidents, was asked the question,

"Can leadership be taught?" Gardner (1990) answered this question with:

> An emphatic but qualified "Yes"— emphatic because most of the ingredients of
> leadership can be taught, qualified because the ingredients that cannot be taught
> may be quite important. The notion that all the attributes of a leader are innate is
> demonstrably false. No doubt certain characteristics are genetically determined–
> level of energy, for example. But the individual's hereditary gifts, however
> notable, leave the issue of future leadership performance undecided, to be settled
> by later events and influence. (p. 157)

Gardner goes on to explain that capabilities that allow an outstanding leader to lead are

normally the end product of a lifetime of learning. President Ronald Reagan's

extraordinary communication skills were the outcome of his professional experience, and

General Douglas MacArthur's strategic and tactical brilliance in World War II were the

outcome of intense study. Some talents express themselves freely with little need for

encouragement, while others require the combination of motivation, character, and opportunity to properly develop.

Through leadership training people learn about appropriate and inappropriate leader actions so they can modify and engage in more sound leadership behavior. In a Coast Guard enlisted career an individual can expect exposure to three formal leadership experiences. Every enlisted member's first 7 weeks in the Coast Guard are identical. New members attend recruit training, commonly called boot camp, where they are exposed to military training and leadership/followership basic fundamentals. Approximately 5 years later, the member will be exposed to leadership and management theory through a week-long Leadership and Management School. After the 10-year mark in their career, enlisted members are expected to attend the Chief Petty Officer Academy where they spend a month developing their leadership skills.

On a fundamental level, leadership training revolves around describing leadership tasks and specifying acceptable performance standards. This process allows people to develop their leadership capacities in ways that increase their capability to lead. If the assumption that leadership can actually be both taught and learned is accepted, then the following question must be examined: What is the purpose of leadership training?

<div align="center">Purpose of Leadership Training</div>

The purpose of leadership training differs from organization to organization, but the primary purpose of most leadership development interventions is to improve individual managerial skills and on-the-job performance (Burke & Day, 1986). Burke and Day completed a meta-analysis of 70 published and unpublished studies spanning over 30 years on the topic of managerial leadership development. Collins (2002)

completed a follow-up meta-analysis on the Burke and Day research, evaluating 83

studies over a 19-year period. Collins found that more and more organizations were

looking at leadership training programs to have a positive effect on both the individual

and the organization. The results of these two studies are discussed in detail in the

Evaluation of Performance Improvement's section of this literature review.

When discussing leadership, organizations can buy it through hiring, or they can

develop the skills through training and education (Olian, Durham, Kristof, & Brown,

1998; Sansone & Schreiber-Abshire, 2006). The purpose of leadership training is to

educate the employee allowing them to grow and improve their abilities, ultimately

improving job performance (Burke & Day, 1986; Thomas & Cheese, 2005; Wexley &

Baldwin, 1986). McCauley et al. (1998) explain the purpose of leadership training by

describing the three phases of leadership development education. The first phase is the

improvement of an individual's capacities, even when the training is directed at teams or

organizations. From there, the training focuses on making an individual effective in a

variety of leadership roles and processes. This phase does not create a leader, but it

focuses on giving the trainee the skills they need to act in both formal and informal

leadership positions. Lastly, the goal of training is to expand an individual's leadership

capacities. The purpose of the Coast Guard Chief Petty Officer Academy leadership

training is "to assist newly advanced Chief Petty Officers' transition into the Chief's

community by developing the leadership, communication, and administrative skills

required" (USCG, 2003, p. 1). Unlike other organizations, the Coast Guard cannot hire

new people to come into its organization at the Chief, or supervisor, level. All enlisted

personnel must start at the bottom of the organization and work their way up over time.

If the Coast Guard wants to increase the leadership skills of its employees it must use leadership training programs that develop the behaviors, skills, and characteristics it desires for its members.

Leadership Training Effectiveness

While the purpose of leadership training programs is normally to improve the trainee's abilities, ultimately increasing the performance on the job, not all training programs are equal. There are many factors that influence the transfer of leadership information and the ultimate effectiveness of the program. Items such as the attributes of the trainee, the composition of the training program, follow-up strategies, the trainer's behavior, and the congeniality of the environment to which the person returns are some of the numerous factors that impact behavior after instruction (Bass, 1990). Each of these factors can significantly reduce the effectiveness of the training program, but follow-up reinforcement practice and congruence of the training and operational environment have a greater impact on most training programs and need to be explored in more detail (Burke & Day, 1986).

Positive transfer of training is defined as the degree to which the trainees effectively apply the knowledge, skills, and attitudes gained in a training context to the job (Wexley & Latham, 1981). Many companies believe that their training investments are largely wasted due to inadequate transfer, especially in the "soft skills" area of leadership and management development (Georges, 1996). A widely respected conceptual framework for analysis of the transfer problem suggests that transfer is a function of three factors: the trainee's desire to learn, the ability to use the training in the work environment, and learning retention (Baldwin & Ford, 1988). Baldwin and Ford go

on to discuss two distinctive concepts in understanding the transfer of training: maintenance and generalization. Maintenance refers to the amount of time that the newly trained skills continue to be used on the job. Generalization refers to the extent to which the skills and behaviors learned during training are exhibited in a job situation. The effectiveness of training is based on both of these factors. Leadership training is under particular scrutiny when it comes to generalization and maintenance.

The maintenance and generalization of a training program are imperative to its effectiveness. Even if the information gained from training is initially used in the work environment, the success of the training program is measured by its long-term effects. The knowledge and skills used in many training programs commonly erode over time, slowly returning to pre-training levels (Baldwin & Ford, 1988). To stop this slow decay, many programs use follow-up reinforcement of the training fundamentals to re-obtain initial post-training levels. Follow-up training slows this reduction and keeps the material fresh in the trainee's mind.

While a lack of follow-up training can reduce the effectiveness of a training program, having dissimilarity between the training and operational environment can leave a training program completely ineffective. The most important factor on whether training will modify behavior back on the job is the trainee's immediate supervisor (Bass, 1990). The contents of the program may be nullified if they are irrelevant to the organization's daily work regiment or the supervisor's philosophy. For training programs to be successful, they must be supported by organizational management and be congruent with operational philosophies.

Hall (2005) analyzed the top training priorities for nonprofit, for-profit, and governmental organizations. He found that 21% of the organizations surveyed planned to make leadership and managerial development the top training priority in the coming year. It is clear that leadership training is important to a large portion of businesses and organizations. With all the money dedicated to leadership training, many organizations feel it is necessary to evaluate the effectiveness of their programs.

Evaluating Leadership Training

The effectiveness of a training program is not something that is always apparent to the coordinators or stakeholders. In an effort to understand that a training program is effective and actively contributing to fulfillment of the organization's mission, the training program may need to be evaluated.

Why Evaluate Training?

Organizations and governmental entities have been evaluating training programs in a systematic manner for some time. Early formal evaluations were largely externally funded studies of large-scale educational programs; unfortunately, the results of these early studies often went unused (Torres & Preskill, 2001). During the last three decades, the number of laws and executive directives that mandate performance measurements and reporting has increased in all levels of government, significantly increasing the amount of evaluation and performance measurement in the United States (Scheirer & Newcomer, 2001). The purpose behind all this evaluation is "to decide if a program should be continued, to decide if a program should be modified, and to demonstrate the value of training—and thus justify [the program's] existence" (Kirkpatrick, 2005, p. 19).

Organizations invest billions of dollars into education and training programs and the sponsors want to know that their investment is being put to good use (Bassi, Benson, & Cheney, 1996; Gibler et al., 2000). Even with a lack of empirical proof, organizations have continued investing in leadership training (Alapander, 1986; Boyett & Boyett, 1998; Brinkerhoff & Montesino, 1995; Dolezalek, 2005; Hall, 2005). The primary method to determine the effect of a program is through evaluation. The evaluation findings are then used to determine if a program is producing its intended results (Torres & Preskill, 2001). If a program is not producing the desired results it should be modified or discontinued. If a program is producing the anticipated outcomes, these results can be used to compare it with similar programs in an effort to standardize products or to give feedback to the program administrators so the program can benefit from the evaluation and be improved. Many companies are using the results of program evaluations also to improve organizational performance and determine the return on investment of the program (Phillips, 2003).

While there are many positive aspects to program evaluation, they must be weighted against a potential negative side effect. Unfortunately, the drive to evaluate the learning and training process has shifted some programs' curriculum away from items that cannot be assessed (Stake, 2001). Many program directors struggle trying to explain the multiplicity of values and whether or not it is possible to measure the more abstract impacts of their programs. While there are a lot of positives that come out of evaluation, they must be tempered and examined for their limitations.

Performance measurements, a common evaluation tool, are widely touted as an effective way to ensure a focus on results and to maintain accountability on expenditures.

Some of the limitations to performance measures are the possible use of meaningless or irrelevant measures, varying interpretation of the "same" terms or concepts, and goal displacement. Perrin (1998) describes how goal displacement can negatively affect an organization. "In Poland under communism, the performance of furniture factories was measured in the [tons] of furniture shipped. As a result, Poland now has the heaviest furniture on the planet" (p. 238). Before evaluations are used to make decisions, it must be understood that they all have limitations. The best evaluations rely on more than one source of information, if available, usually balancing qualitative and quantitative information (LeMay & Ellis, 2007; Perrin, 1998).

The United States Coast Guard does not have a systematic process to evaluate its training programs. Currently, a few training programs, including the Chief Petty Officer Academy, routinely evaluate their training programs' effectiveness and make appropriate changes as they see necessary.

How to Evaluate Training

Interest in evaluation has stimulated many scholars to develop their own conceptual points of view. The field of evaluation has expanded to include "a wide variety of approaches to judgment of merit and worth of programs, personnel, learning, policies, and other evaluands" (Mathison, 2004, p. 273). The vast amount of evaluation models can be separated into two major categories, program improvement and program evaluation. The models focused on program improvement are more holistically designed, examining all aspects of the program, in an effort to give feedback to the program sponsors. The program evaluation models are more focused on purely

evaluating the effectiveness of the program rather than interweaving this evaluation into program improvements.

Two of the more popular program improvement models used are the CIPP (Context, Input, Process, and Product) model (Stufflebeam et al., 1971) and the Fourth Generation Evaluation model also called the Constructionist Evaluation model (Guba & Lincoln, 1989). These models are designed as decision-focused approaches to evaluation, commonly used in the educational environment. They take a system's approach to evaluation, aiming to paint a broad picture of a program ultimately understanding the project and its context (Guba & Lincoln, 1989; Stake, 1975; Stufflebeam et al., 1971). While the models' strengths are their flexible framework, allowing the user to examine different cases or situations within the whole project, they do have their limitations. They are, for the most part, limited to pure evaluation of the effectiveness of a training program.

For purely measuring program effectiveness, the Results Assessment System and Kirkpatrick's four-level model are better suited. Swanson and Holton (1999) created the Results Assessment System to analyze the outcomes of training from both a learning and a performance perspective. The Results Assessment System model enables practitioners to measure results within three domains: performance, learning, and perception. Each of these domains has various sub-domains that allow the researcher to examine the effects of training on multiple levels. According to Swanson and Holton (1999), "within the performance domain, . . . a complex organization can have a variety of performance outcomes" (p. 64), but a "unit of performance must be selected as the focal point of the

assessment" (p. 67). The attraction to the Results Assessment System lies in its

flexibility and the variety of applications within complex training programs.

While the Results Assessment System prides itself on its complexity,

Kirkpatrick's four-level model is praised for its simplicity. Kirkpatrick's four-level

model (1959a, 1959b, 1960a, 1960b) is the most prevalent framework for evaluating

training (Alliger et al., 1997; Behrens & Benham, 2007). It measures the effectiveness of

a training program on four levels. Each level builds upon the next. Level 1 measures

participant reaction to the training material. This section of the evaluation provides

direction for improving the program and gives the student's reaction to the learning

material. A positive reaction does not guarantee learning, but a negative reaction almost

certainly reduces the possibility. Level 2 measures the student level of learning. This

information is normally attained through pre- and post-intervention testing. The third

level in Kirkpatrick's model is the measurement in learning transfer or generalization

(Baldwin & Ford, 1988). A training program whose participants use many of the

techniques learned during training in their daily routine would score well in this level.

Level 4, the final level, measures the results of the training. This level is focused on

performance improvement such as, increased production, improved quality, reduced

frequency of accidents, and even higher profits. Performance improvement is the apex in

Kirkpatrick's training effectiveness model. The reason most researchers select

Kirkpatrick's model over the Results Assessment System is that they do not need the

diversity that the latter system provides (Holton, 1996).

While Kirkpatrick's model give guidelines on the type of evaluations and when

the data should be collected, there are different methods to experimentally collect the

information. Once Kirkpatrick's model is selected for a training program, it is important

to design a test to quantify the effects. "The goal of most experimental designs is to

determine if there is a difference among groups with regard to some variable of interest

after imposition of an intervention" (Bonate, 2000, p. 3). The three most popular

leadership training test designs are posttest only with control group (PTCG), pretest-

posttest with control group (PPCG), and single group pretest-posttest (SGPP) (Collins &

Holton, 2004). There are benefits and sources of invalidity to each of these designs. The

benefit to PTCG and PPCG designs is that they have comparison groups that control for

outside variables affecting the intervention (Gay & Airasian, 2000). The benefit of the

PPCG and SGPP designs is that each group has a baseline value (pretest) which the

effects of the intervention can be compared against (Bonate, 2000). The sources of

invalidity for PTCG and PPCG designs are that they do not know to what degree the

experiment and control group are equivalent. This difference between groups could

positively or negatively skew the results of the study. The source of invalidity for the

SGPP design is that there is no control for outside variables affecting the intervention

(Gay & Airasian, 2000). While there are positives and negatives to each experimental

design, the researcher must choose a design that best complements the specific research.

This study used the single group pretest-posttest technique. This format was selected

based on necessity, as the Chief Petty Officer Academy is mandatory and there was not a

suitable control group available.

Evaluation of Performance Improvements

Burke and Litwin (1992) define performance as "the outcome or result as well as

the indicator of effort and achievement" (p. 533). These outcomes include productivity,

profit, service quality, and customer or employee satisfaction (Collins & Holton, 2004).

One of the primary purposes of leadership training is to improve an individual's

performance. Piotrowski and Armstrong (2005) state that leadership development is a

foremost topic in business literature and one of the most prolific and fastest-growing

areas of interest in organizational development. Unfortunately, the increase in leadership

literature is primarily focused on trainee reaction to leadership training and rarely focused

on the performance effects of such training, which is the focus of this study.

Three studies have completed a large-scale analysis of the performance effects of

leadership training. These meta-analysis studies are Burke and Day (1986), Zhang

(1999), and Collins (2002). These studies, when combined together, evaluate most all of

the leadership development literature on performance, both published and unpublished,

from 1956 to 2001. They encompass leadership development programs in the majority of

major industries in the United States and throughout the world including: automotive,

financial, manufacturing, technology, utilities, education, government, medical, military,

and many others. Burke and Day's meta-analysis found that although leadership training

resulted in a moderate increase in knowledge of prescribed leadership principles and

behaviors in most studies, some also showed negative effects. Collins repeated Burke

and Day's meta-analysis 16 years later, also finding leadership training minimally

effective on improving performance. All three studies used effect sizes to evaluate the

impact of performance. Several standards exist in the literature to assess the

meaningfulness of effect size. Cohen (1977) suggests 0.2 as a minimal effect, 0.5 as a

moderate effect, and 0.8 as a meaningful effect. In Collins's (2002) study, the

organizational performance effect sizes ranged from 0.02 to 0.79, yielding a mean of 0.39

(418 participants). The mean effect size for organizational performance improvement in Burke and Day's (1986) study was 0.67 (2,298 participants) and for Zhang's (1999) meta-analysis study the mean was 0.49 (392 participants). The three also studied leadership training effects on individual performance. In Collins's (2002) study, the personal performance effect sizes ranged from 0.04 to 2.10, yielding a mean of 0.38 (2,638 participants). The mean effect size for individual performance improvement in Burke and Day's (1986) study was 0.49 (2,298 participants), and for Zhang's (1999) meta-analysis study the mean was 0.50 (392 participants). The consistent effect range from upper minimal to moderate levels is encouraging, but the shortage of performance-based studies on the issue is distressing. The results of this CPOACAD study will be compared against Collins's study, one of the most recent comprehensive analyses of the performance effects of leadership training

<center>Performance Appraisals</center>

From a research perspective, performance appraisals are occasionally used to evaluate the effects of a training program on individual performance (Zhang, 1999). In this study, performance appraisals from the graduates of the CPOACAD are used to evaluate their change in performance. To have a deeper understanding of the complex nature of performance appraisals, an evaluation of literature on this topic must briefly be reviewed.

Performance appraisals, often called performance evaluations, are frequently used in organizations as a basis for administrative decisions, such as employee promotion, transfer, and allocation of financial rewards (Barrett, 1966; Fletcher, 2001). Since their inception, performance appraisals have changed from purely measurement-focused to a

development tool used to increase employee productivity and allow for constructive

feedback on performance (Keeping & Levy, 2000).

Performance appraisal systems are normally broken down into three primary

groups: non-quantitative analysis, semi-quantitative analysis, and quantitative analysis

(Chen & Hsieh, 2007). Generally, the more subjective the job being evaluated, the less

quantitative the performance appraisal system. Performance ratings based on subjective

judgments often raise concerns about accuracy. While facets such as user acceptance and

performance appraisal flexibility are important criteria for assessing appraisal

effectiveness, accuracy continues to be the critical criterion of appraisal effectiveness

(Jelley & Goffin, 2001).   For reasons of accuracy, quantitative performance appraisal

systems have become more popular with organizations. Two of the more popular

quantitative performance appraisal systems are behavior-based, also called trait-based,

and effectiveness-based systems.

Trait-based systems normally use a multidimensional, or graphic, approach to

measure performance.   With this tool, the rater indicates on a numerical scale the degree

to which the person rated possesses certain personality traits. The performance

dimensions are usually traits such as leadership, initiative, cooperation, judgment,

creativity, resourcefulness, innovativeness, dependability, or similar items.   If the

performance dimension is vague, the rater is forced to link observed behavior with the

abstract personality trait, increasing the number of errors in the performance appraisal.

Yet, because this kind of system is relatively easy to develop and administer it has been

used by companies for decades. The results are quantifiable and can be standardized to

compare individuals and across divisions (Cascio, 1991). In 1952, Benjamin reported

that 87% of a sample of 130 companies used this type of rating scales and they continue to be one of the most common rating tools in use today (Wiese & Buckley, 1998). Based on the multiple uses of performance appraisals, there is an increasing trend in using "mixed" formats to evaluate employees (Murphy & Cleveland, 1995).   The mixed formats normally encompass trait- and effectiveness-based systems.

Effectiveness-based systems are normally based on objective results, not activity or behavior. Management by Objectives is a popular example of this type of performance-appraisal format. Levinson (1970) discovered a tendency for objective-setting measures, such as sales dollars or number of units produced, to result in a disregard for less quantifiable aspects of job performance such as customer service and quality work. Thus, a high degree of job analysis and inferential skills are needed to determine which performance dimensions to measure and the goal achievement standards to use (Murphy & Cleveland, 1995). Today, effectiveness-based systems are the preferred format for assessing executives, managers, and professional employees.

The Coast Guard enlisted performance appraisals are classified as a "mixed" format with the predominate focus on trait-based evaluation. The appraisals contain both quantitative and non-quantitative analysis, but only the quantitative material was used for this study to determine the performance improvement of the Chief Petty Officers after CPOACAD graduation.

Summary of Literature Review

Companies and organizations are spending a lot of money on leadership training and the stakeholders in these programs intuitively believe that their investment is making a positive change in their employees. Currently, few companies, including the United

States Coast Guard, actually measure the transformation in their employees because leadership is such a difficult characteristic to quantify. While challenging to quantify, the most common process is to measure leadership through the traits and behaviors of those being evaluated. One of the purposes of leadership training is to develop positive leadership traits and behaviors in the participants in the program. The task of evaluating the post-training increase in leadership skills can be completed through the use of several different models. The most common is the Kirkpatrick four-level model which can be used to measure the increase in performance attributed to leadership training. The use of performance appraisals has shown to be an effective method for evaluating the performance changes in individuals after the completion of a leadership training program.

The Coast Guard Chief Petty Officer Academy is an example of a leadership training program. The CPOACAD is currently using Kirkpatrick's four-level model (1998) to evaluate its program's effectiveness. This study uses a single group pretest-posttest design to evaluate a change in the performance appraisal scores for the leadership training program graduates. The methodology for this study will be explained in the next chapter.

CHAPTER III

METHODOLOGY

This study provides empirical support on the long-term benefits of leadership development training in the United States Coast Guard. The purpose of this chapter is to give a description of the procedure used in obtaining performance data for this study. The chapter was organized to discuss the following: (a) design of the study, (b) the population, (c) the sample, (d) generalizability, (e) quantitative instrumentation and qualitative interview protocol, (f) data collection, (g) training program, (h) null hypotheses, (i) data analysis and examination, and (j) summary of methodology.

Design of the Study

This study has a mixed-method design. The format of the study was sequential where the quantitative section was performed before the qualitative segment. The quantitative portion evaluated enlisted performance evaluations and then qualitative interviews were used to describe the results in more detail.

Quantitative Design

The quantitative design of the study focused on the change in performance evaluations after completing the Chief Petty Officer Academy (CPOACAD). The CPOACAD curriculum delivers critical leadership knowledge and management skills

required of newly advanced Chief Petty Officers (USCG, 2003). The month-long, intense resident course can be classified as a leadership development program.

The Coast Guard has a mandatory attendance policy for the CPOACAD, making it unfeasible to have a control group for the study. For functional reasons, the quantitative section of this study used a single group pretest-posttest design. Collins and Holton (2004) state that there should be more single group pretest-posttest studies in the area of leadership development. The pretest was composed of the performance information prior to graduation, while the posttests were focused on performance information after graduation. The CPOACAD graduates Chief Petty Officers every 33 days, resulting in multiple graduations in 1999. To compensate for the various graduations, the study was based on a staggered one-group pre-posttest design. The performance evaluations spanned from approximately 1 year before a Chief graduates from the CPOACAD to 3 years after their graduation, for a total of four performance evaluations.

Three years is the standard amount of time required to determine whether a change in performance has occurred as a result of an intervention (Collins, 2002). A one-way repeated measure analysis of variance (ANOVA) was used to establish if there were any significantly different performance appraisal totals over the 4-year time periods. Additionally, a pairwise analysis was conducted to establish which time periods were statistically unique.

<p style="text-align:center">Qualitative Design</p>

For the qualitative portion of the study, four Chiefs were probed in-depth with qualitative interviews. The four Chiefs were a purposive sample (Merriam, 1988)

consisting of two graduates who show a significant increase in overall performance and two graduates with limited overall performance change. The interviews were coded, looking for similarities and differences in experience among the four Chiefs. The qualitative data were compared against the quantitative results in an effort to better describe the performance effects of the CPOACAD.

The Population

The population for the study was the 1999 graduates of the Chief Petty Officer Academy. The population consisted of all CPOACAD graduates from January 1, 1999, to December 31, 1999. Table 3 represents the monthly graduation rates in 1999. The year 1999 was chosen for three reasons. The first was that the CPOACAD changed significantly in 1999. In 1998, the CPO Needs Assessment survey was published (Appendix A). This survey showed evidence that the Coast Guard needed a program to transition its members from E-6 to E-7. In 1999, the CPOACAD shifted its focus from training future E-9s to developing the leadership skills required by a junior E-7. This study reflects the current curriculum and was more valuable to the CPOACAD than a study done prior to 1999. Second, enough time has passed to evaluate the long-term effects of the leadership development program on the 1999 graduates. This study uses three post-graduation performance evaluations to evaluate the effects of the program. These post-graduation evaluations were compared against pre-graduation performance evaluations. Lastly, the training became mandatory to a larger group in 1999, so the enrollment significantly increased allowing for a larger sample.

Table 3

Chief Petty Officer Academy Monthly Graduation Rates in 1999

Month	Total Number of Graduates
January	0
February	59
March	17
April	45
May	55
June	28
July	59
August	3
September	45
October	28
November	29
December	31
Total	399

The Sample

In this mixed-method study, there were two distinct samples. The first sample was derived from the usable enlisted performance evaluations for the 1999 graduates of the Chief Petty Officer Academy. The second sample queried four specifically selected Chiefs from the quantitative sample with qualitative interviews.

Quantitative Sample

From January 1, 1999, to December 31, 1999, three hundred and ninety-nine Chief Petty Officers graduated from the Chief Petty Officer Academy. However, this study included only a portion of those individuals in the sample. The Chiefs excluded fell into two categories: irretrievable data and those promoted during the period of the study. The ability to retrieve the Chief Petty Officers' data was paramount for the quantitative section of the study. The primary reasons that an individual would have

irretrievable data were retirement or resigning from the Coast Guard. An individual's data were no longer available when they retired or departed from the Coast Guard.

The second reason that a Chief Petty Officer was excluded from the sample was promotion during the 4-year study. When a First Class Petty Officer (E-6) is promoted to a Chief Petty Officer (E-7) he or she is evaluated with a different performance evaluation form. The major difference between evaluations is that the E-7 evaluation has two additional categories under the professionalism section. A minor difference between the two evaluation forms is in the wording used to describe the performance standard in several categories (e.g., directing others and developing subordinates). Not all of the wording has been changed and the changes that have been made were slight. While the differences were small between the E-6 and E-7 evaluations, they do create a problem when comparing the two evaluations against one another.

Additionally, individuals promoted from Chief Petty Officer (E-7) to Senior Chief Petty Officer (E-8) were also excluded from the study. While the performance evaluation forms are the same between the two Chiefs, the newly promoted E-8 is now being evaluated against a different set of peers. The interpretation on how this newly promoted E-8 performs against his or her new peer group sometimes results in a decrease in performance evaluation scores. Some supervisors automatically decrease performance evaluation levels upon promotion, while others do not. To alleviate the confusion around promotion, all individuals promoted during the 4-year period of the study were excluded.

Of the 399 Chiefs who graduated in 1999, one hundred and thirty-nine Chief Petty Officers agreed to participate in the study. The sample was reduced to 71 Chiefs when it was discovered that 68 Chiefs had data that were irretrievable. Of the 71 with retrievable

data only 40 met the requirement of not being promoted during the 4-year study. The effective sample for this study was the 40 Chiefs who met all the required conditions of the study.

<div align="center">Qualitative Sample</div>

According to Merriam (1988) the needs of qualitative research are best met by purposeful sampling. Merriam described purposive sampling as "based on the assumption that one wants to discover, understand, gain insight; therefore one needs to select a sample from which one can learn the most" (p. 48). Miles and Huberman (1994) indicated that a small group of subjects studied in their context make up a purposive sample. In addition, they indicated that initial choices of participants in the research study can lead to unlike or like subjects, which helps the researcher further describe the entity.

Four Chiefs from the quantitative sample were probed in-depth with qualitative interviews. The four Chiefs were separated into two categories: Chiefs with no significant overall performance variation, as measured through their enlisted evaluation totals, and Chiefs with significant positive overall performance variation, as measured through their enlisted evaluation totals. The criteria for the no-significant-performance variation sample consideration included those CPOACAD graduates who had a Wilks' Lambda significance of more than 0.05, whereas the criteria for the significant-positive performance sample variation consideration included those CPOACAD graduates who had a Wilks' Lambda significance of less than 0.05. The final two Chiefs for the no-significant-performance variation were selected because they had the least amount of change in performance after CPOACAD graduation. The two significant variation Chiefs

were not selected because they had the largest increase in performance after graduation, but because their performance increase mirrored the significant increase found in the quantitative sample. A detailed analysis describing the selection of the qualitative sample can be found in Appendix E.

Generalizability

The generalizability of this quantitative sample is applicable for all CPOACAD classes in 1999. It is assumed that the sample will also be applicable to all classes after 1999 as long as there is not a change in the format or curriculum for the program. Currently, the CPOACAD is operating under the same curriculum that was evaluated in this study.

While the previous paragraph discusses the generalizability of the quantitative section of the study, the qualitative portion can also be used for generalization. Using Eisner's (1998) three aspects of generalization, the skills, images, and ideas from the study can be transferred outside the CPOACAD class of 1999. The graduates' feelings for the program and the personal changes it inspired can be applicable to classes after 1999 as long as there has not been a significant change in the curriculum or the instructional techniques of the program.

Quantitative Instrumentation and Qualitative Interview Protocol

In this mixed-method study, two different instrumentations were deployed. The quantitative instrumentation was the United States Coast Guard enlisted performance evaluations form and the qualitative data was collected through in-depth interviews.

Quantitative Instrumentation

The instrumentation for the quantitative section of this study was the enlisted employee review system, or enlisted evaluation performance form. The Coast Guard enlisted appraisal system uses both quantitative and qualitative analysis. The system is mixed between trait-based and effectiveness-base, with the majority of the evaluation focused on trait-based performance dimensions. There are three versions of the evaluation form; this study uses the Master, Senior, and Chief Petty Officer form, CG-3788C (Appendix F). The performance appraisal uses a 7 point, graphic rating scale with narrative comments. The scale goes from a low score of 1 to a high of 7. Narrative comments are required only for ratings of 1, 2, or 7. This study evaluated only the numerical scores used on the performance evaluation and did not address narrative comments.

The Chief Petty Officer performance appraisal form is computer generated with 24 categories divided into four sections of performance. The Coast Guard enlisted evaluation sections of performance are leadership, professional qualities, performance, and military. For ease of understanding and to avoid confusion in this study, the titles of the Coast Guard enlisted evaluation sections have been altered. Table 4 gives a summary of the redesignation of titles.

The sections are defined by the enlisted evaluation portion of the *Coast Guard Personnel Manual* (USCG, 2005b) as,

> *Leadership Abilities*. Measures a member's ability to direct, guide, develop, influence, and support others' performing work.
> *Professionalism*. Measures those qualities the Coast Guard values in its people.
> *Organizational Responsibilities*. Measures a member's willingness to acquire knowledge and the ability to use knowledge, skill, and direction to accomplish work.

Military Protocol. Measures a member's ability to bring credit to the Coast Guard through personal demeanor and professional actions. (p. 10.b.3)

The sections of performance evaluation are further divided into seven leadership abilities categories, six professionalism categories, nine organizational responsibilities categories, and two military protocol categories. While each category must be evaluated independently, it was possible and even likely that there may be correlations between certain categories, where actions that lead to attainment of a certain level of performance in one category may influence the rating in another category.

Table 4

Enlisted Performance Evaluation Section Title Redesignation

Coast Guard Evaluation Section Title	Redesignated Section Title
Total Evaluation	Overall Performance
Leadership	Leadership Abilities
Professional Qualities	Professionalism
Performance	Organizational Responsibilities
Military	Military Protocol

Leadership Abilities Section

The Leadership Abilities section consists of seven categories. The categories and definitions are:

Directing Others: The effectiveness of this member in influencing and guiding others in the completion of tasks.

Working with Others: The degree to which this member promoted a team effort in accomplishing work goals.

Developing Subordinates: The extent this member used coaching, counseling, training, and education to increase the knowledge and performance of subordinates or others; the degree of this member's sensitivity and responsiveness to the goals and achievements of others.

Responsibility: This member's ability and willingness to enforce standards on self, subordinates, and others; to support policies and decisions; and to hold one's self accountable for own and subordinates' actions.

Evaluations: The extent to which this member conducted, or required others to conduct, evaluations that were objective, accurate, fair, timely, and consistent with actual performance; evaluations treated as an ongoing process versus an event.

Work-life Sensitivity/Expertise: The acquisition and use of both knowledge and skills to enhance the overall quality of life and general welfare of Coast Guard members and their families: the member's interest in and level of support for Coast Guard Work-life and related programs regardless of billet.

Setting the Example: This member's ability and willingness to seek responsibility and display positive judgment in making decisions.

Professionalism Section

The Professionalism section consists of six categories. The categories and definitions are:

Health and Well-being: The degree to which this member exercised moderation in the use of alcohol; the degree to which this member maintained weight standards.

Integrity: The degree to which this member demonstrated the qualities of honesty and fair-mindedness in personal relationships and actions, on and off duty.

Loyalty: The degree to which this member was committed to the Coast Guard, unit, supervisor, and shipmates.

Respecting Others" The degree to which this member cooperated with other people or units to achieve common goals.

Human Relations: The degree to which this member fulfilled the letter and spirit of the Coast Guard's Human Relations/Sexual Harassment policy in personal relationships and actions.

Adaptability: The degree to which this member adjusted and managed change.

Organizational Responsibilities Section

The Organizational Responsibilities section consists of nine categories. The categories and definitions are:

Professional/Specialty Knowledge: The degree to which this member demonstrated technical competency and proficiency for rating or special assignment.

Professional Development: The degree to which this member continued to professionally develop, acquire new skills, or improve current skills and knowledge.

Administrative Ability: The degree to which this member completed written work, including correspondence and reports.

Organization: The degree to which this member identified what needed to be done, set priorities, and kept supervisor informed.

Using Resources: The degree to which this member used personnel and material resources.

Monitoring Work: The degree to which this member monitored status of work and met deadlines.

Safety and Occupational Health: The degree to which this member identified, evaluated, and managed risks to personnel.

Stamina: The degree to which this member thought and acted effectively under conditions that were stressful and mentally and physically fatiguing.

Communicating: The degree to which this member listened, spoke, and expressed thoughts clearly and logically.

Military Protocol Section

The Military Protocol section consists of two categories. The categories and definitions are:

Military Bearing: The extent to which this member appeared neat, smart, and well groomed in uniform; and set standards for subordinates.

Customs and Courtesies: The extent to which this member conformed to military traditions, customs, and courtesies; and set standards for subordinates' performance and behavior.

Category Evaluation

While the evaluation sections separate the performance appraisal into logical segments, the Chief Petty Officer is evaluated only on the categories that compose each section. When the supervisor reviews the graphic rating scale for the individual categories, he or she is looking for sentences and paragraphs that properly describe the employee. Figure 2 displays the standard criteria for the Using Resources category.

Using Resources
The degree to which this member used personnel and material resources.

1
| 2 | Occasionally wasted materials or unable to properly and effectively use tools, publications, and equipment. Sometimes wasted time. Did not delegate well. Often failed to follow-up. |
3
| 4 | Successfully used available resources, personnel, and material. Delegated well. Made good use of available personnel and their skills. Materials, tools, equipment, and publications effectively used. Followed-up to ensure tasks properly completed. |
5
| 6 | Expertly used all resources. Personnel and their skills maximized to capacity. Sought out better ways to accomplish tasks. Used sound management practices and achieved optimum efficiency and effectiveness. |
7

Figure 2. Enlisted evaluation standard criteria for the Using Resources category.
From Coast Guard Enlisted Evaluation Form CG-3788C.

The standard criteria for all categories can be found in Appendix F. The supervisor must

pay strict and conscientious adherence to the specific wording of the standards for it was

essential to the enlisted performance evaluation process.

The category criteria have specific standards established for a mark of 2, 4, and 6.

To earn a mark of 2, 4, or 6, the member must meet these standards and no others in the

next higher performance standard. A mark of 4 represents the expected performance

level of all enlisted personnel. To earn a mark of 3 or 5, the employee must consistently

exhibit at least one component of the higher wording group. To earn a mark of 7, the

employee must exceed the specific wording in the mark of 6 paragraph. If the employee

earns a mark of 1, 2, or 7, a narrative comment is required to define the performance.

The marks are described as follows:

1. Unacceptable

2. Poor

3. Below Standard

4. Average

5. Above Average

6. Excellent

7. Superior.

Performance Evaluation Process

The performance evaluation process assessed an enlisted member's performance and value to the Coast Guard through a system of multiple evaluators who present independent views and thus ensured accurate, prompt, and correct reporting (USCG, 2005b). It reinforced decentralization by placing responsibilities for development and performance review at lower levels within the command structure. It ensures the evaluee was evaluated annually and the performance appraisal was based on how the evaluee performed in each category consistently throughout the period.

The employee review begins with the evaluee's supervisor and was progressively reviewed and modified, as necessary, by higher supervisory levels until finally approved by the approving official, normally the unit's Commanding Officer. Through this process, the performance evaluation has a built-in check and accountability system to ensure supervisory personnel were aware of the importance of employee reviews and gave them incentive to be totally objective and accurate (USCG, 2005b). The supervisor gathered all written and oral reports on the evaluee's performance and ascertained the status of the evaluee's performance qualifications for next higher pay grade. The marking official, normally the evaluee's Department Head, reviewed the recommended marks and

discussed with the supervisor any recommendations considered inaccurate or inconsistent with the member's actual performance. The approving official was responsible for overall consistency between assigned marks and actual performance without using any type of forced distribution process (USCG, 2005b). While the process was designed to be totally objective, a rater's knowledge of prior performance may affect his or her final judgment (Huber, Neale, & Northcraft, 1987).

The enlisted evaluation process was designed to be as objective as possible. However, when one human being evaluates another, there will be some subjectivity. Normally, a single, isolated event (either positive or negative) should not drastically affect the marks assigned during the employee review period. If the evaluee felt that the performance appraisal contained incorrect information or had disproportionately low marks for the particular evaluation period, he or she can appeal the performance evaluation. The multiple evaluators and appeal process allow for a consistent and standard evaluation process.

Reliability

The enlisted performance evaluation process has been verified to produce reliable data (USCG, 2005b). The instrument has been pronounced reliable by the United States Coast Guard based on stability. To test the reliability of the Coast Guard enlisted evaluation form, an independent test-retest study was performed for this study. This stability study used 30 randomly selected Chief Petty Officers' performance evaluations. The randomly selected individuals were from the pool of 139 Chiefs who agreed to participate in the study. The test-retest correlation was based on total performance evaluation scores for a 1-year retest time period. A test-retest reliability study indicated a

correlation of 0.80 between annual evaluations. Viswesvran, Ones, and Schmidt (1996) completed a comparative analysis of the reliability of job performance ratings and found the intrarater reliability to be between 0.70 and 0.90. The interrater reliability range was 0.50 to 0.65. The enlisted evaluation form was reliable as determined by Coast Guard assessment and this study's independent test-retest research.

Validity

The enlisted performance evaluation process produces valid content (USCG, 2005b). The instrument has been pronounced valid by the United States Coast Guard based on content validity. The enlisted evaluation form was designed by a panel of competent officers and enlisted personnel who were selected from field units. The panel developed personal performance characteristics and mixed anchored rating scales for each characteristic. This "critical incident technique" (Flanagan, 1954) resulted in a series of performance scales for the Chief Petty Officer. A similar method was used in developing the Canadian Forces Performance Appraisal System in 1981 (Shields, 1982). The panel's final evaluation characteristics and rating scales were then passed to an advisory group. This group was made up of enlisted assignment managers, personnel management policy decision makers, and other evaluation experts. The advisory group made the ultimate decision on which personal performance characteristics would be assessed in the enlisted evaluation final product. The enlisted evaluation form is valid as determined by Coast Guard expert judgment and is currently a major factor used in determining promotions (USCG, 2005b).

Additionally, the qualitative and quantitative sections of the study use the categories of the Coast Guard enlisted evaluation form to categorize their information.

This allows the quantitative and qualitative results to be compared to test the validity of the study.

Interview Protocol

The interviews consisted of five questions. The first four of the five questions were derived from McCauley and Hughes-James's (1994) study on the effects of a leadership development program on 38 school superintendents. The questions were chosen because they were specifically directed towards the impact of leadership training. The first two questions were general questions aimed at examining how the CPOACAD impacted the participants (Mason, 1996). The next two questions gave the participants the opportunity to discuss the good and bad aspects of the program, regardless of its personal impact. The last question was created to examine the relationship between the CPOACAD and enlisted performance evaluations. The interviews were formulated around the following five questions.

1.   What are the two or three most important ways the CPOACAD has had an impact on you?

2.   If I asked those who work with you what you are doing differently compared to 6 to 7 years ago, what would they say? How much would you attribute these differences to the CPOACAD?

3.   What were the highlights or most positive aspects of the CPOACAD for you?

4.   What were the lowlights or least positive aspects of the CPOACAD for you?

5.   What effect do you think that the CPOACAD had on your performance as measured through your enlisted evaluations?

Although the interview was formulated around five questions, follow-up questions were used occasionally to better understand the participant's answers. The interview process was carried out as equally as possible between the four participants to ensure maximum uniformity.

Data Collection

In this mixed-method study, two different methods of data collection were deployed. The quantitative collection focused on the United States Coast Guard enlisted performance evaluations retrieval and the qualitative collection was directed towards interviews.

Quantitative Collection

The quantitative information for this study was collected from data available on Chief Petty Officers' annual Coast Guard performance evaluation forms. Prior to collecting any data, advance permission (Appendix G) was obtained from the Coast Guard Leadership Development Center.

After permission was obtained from the Coast Guard, each Chief Petty Officer who graduated the CPOACAD in 1999 was individually contacted before their data could be used in this study. In 1999, three hundred ninety-nine Chiefs graduated from the CPOACAD. The 399 members were contacted via electronic mail to request they release their records for participation in the study (Appendix H). The message included information about the study and a release form. Only individuals who replied to the message, authorizing usage of their enlisted evaluation information, were included in the study.

The data collection for this study was based on a staggered pretest-posttest design. It was staggered because the Chief Petty Officer Academy graduates Chief Petty Officers every month (Table 3). The data for each participant were segmented into four sections. This segmentation was based on when the Chief Petty Officer graduated from the CPOACAD and the enlisted evaluation marking cycle date. The CPOACAD graduated a class every month, which did not directly correspond with the enlisted evaluation marking cycle in the Coast Guard. A Chief Petty Officer is evaluated once a year, and it was unrealistic to think that an evaluation received shortly after graduation would allow a Chief enough time to implement and be evaluated on his or her new skills.

Empirical research on training commonly measures performance after a 3-month to 1-year time lag (Morin & Renaud, 2004). For this study, the first year post- evaluation was a minimum of 3 months after CPOACAD graduation. This allowed the supervisor enough time to properly evaluate performance changes the Chief may have after graduation. If the evaluation date was before graduation it was classified as a pre-graduation evaluation. Additionally, if the performance evaluation date was less than or equal to 90 days after the graduation date, then it was classified as a pre-graduation evaluation. All performance evaluations that occur after 90 days were considered post-graduation evaluations. Figure 3 shows the flowchart for classifying pre- and post-graduation evaluations.

While the Chief performance evaluations are normally given annually, there are exceptions to the yearly rule. If a Chief Petty Officer transfers, he or she receives a special performance evaluation when departing the unit. These departure evaluations may occur sooner than a year from the previous performance evaluation. The next

evaluation will return the Chief into the normal annual performance cycle. If the next

annual evaluation was within 184 days of the transfer evaluation, it was not required by

the Coast

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        ┌─────────────────────────────┐
        │ Days between evaluation and │
        │ CPOACAD graduation          │
        └─────────────────────────────┘
                       │
       ┌───────────────┼───────────────┐
       ▼               ▼               ▼
 ┌───────────┐  ┌───────────────┐  ┌───────────┐
 │ < 0 Days  │  │ 0 to 90 Days  │  │ > 90 Days │
 └───────────┘  └───────────────┘  └───────────┘

     PRE              PRE             POST 1
```
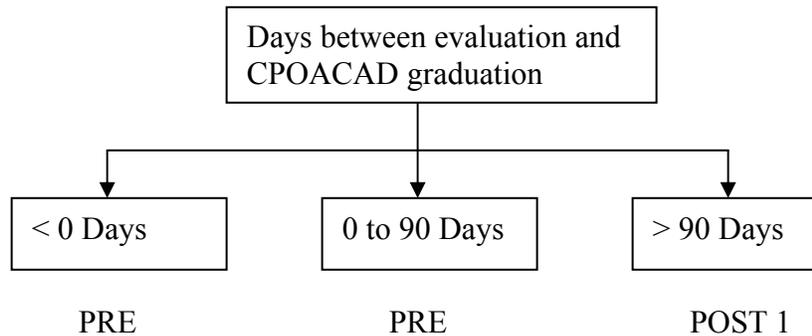
Figure 3. Flow chart for classifying pre and post-graduation evaluations.

Guard (USCG, 2005b), but can be requested by the Chief Petty Officer. For

this study, if the performance evaluations were less than 90 days apart, they were

averaged together and considered one evaluation.

It was important that four sequential performance evaluation data points were

considered for this study. These four data points need to contain a pre-graduation

evaluation and the following three post-graduation evaluations for the study to be

effective. Table 5 displays the sample mean and standard deviation for days since

graduation for pre- and post-evaluations. While all Chiefs graduated and were evaluated

at different times during the study, this table summarizes the data in relationship to each

Chief's graduation date. For the sample, it appears that the pre-graduation evaluation

mean was approximately a month before graduation and the three post-graduation

evaluation means occur the 3 consecutive years after graduation.

Table 5

Mean and Standard Deviation for Days Since Graduation for Pre- and Post-Evaluations
(n = 40)

	M Days from Graduation	*SD*
Pre	-23	100.7
Post1	370	103.6
Post2	717	137.4
Post3	1078	204.5

Note. A negative number represents days before the graduation date, while a positive
number represents days after the graduation date.

Qualitative Collection

The data for the qualitative section of this study were collected from personal

interviews. Four of the 40 quantitative participants were contacted to participate in the

qualitative section of the study. The purposive sample for the qualitative section was

separated into two categories: two Chiefs with no significant overall performance

variation and two Chiefs with significant positive overall performance variation.

The qualitative interviews were conducted via phone conversation, audiotape

recorded, and transcribed. Within each interview, respondents were asked a variety of

open-ended questions regarding their change in performance since graduation. They

were asked to provide a detailed description of how the CPOACAD affected their

leadership knowledge, style, and interaction with subordinates. The transcripts were then

coded, looking for similarities and differences in knowledge and experience among the

four Chiefs. Additionally, the interviews were categorized into broad themes which were

then compared against the Coast Guard's enlisted evaluation form. Each interview

participant gave verbal permission to use their responses in the study.

Training Program

The Chief Petty Officer Academy has evolved its leadership development training curriculum significantly since its conception in 1982. The Coast Guard's current instruction on the CPOACAD (Appendix I) states,

> The Chief Petty Officer Academy Course is designed to assist newly advanced Chief Petty Officers (CPO) transition into the Chief's community by developing leadership, communication, and administrative skills required to become an effective Chief Petty Officer. (USCG, 2003, p. 1)

The general course outline can be broken into five topics (Table 6). The five topics are self, co-workers, organization, community, and reflection. The focus of the 33-day leadership development school was to provide the knowledge, skills, attitudes, and abilities required of newly advanced Chief Petty Officers. The Chief Petty Officer Academy's curriculum terminal performance objectives and enabling objectives are found in their entirety in Appendix B. Table 7 summarizes the terminal performance objectives. The CPOACAD general course schedule and curriculum mirrors many of the categories of the Chief Petty Officer yearly performance evaluation (Table 8). Table 8 illustrates that the curriculum parallels 21 of the 24 categories of the enlisted performance evaluation. The only excluded categories were professional/specialty knowledge, safety and occupational health, and loyalty. The long-term goal of the academy was to personally and professionally benefit the senior enlisted graduates for the remainder of their career.

Table 6

Chief Petty Officer Academy General Course Outline

Topic	General Description
Self	Myers-Briggs Type Indicator (MBTI); Learning Style Inventory; Increasing Human Effectiveness; College Level Examination Program (CLEP); Educational Assessment; Wellness/Nutrition; Ropes; Global Ethics
Co-workers	Diversity; Leadership; Motivation; Coaching; Counseling; Facilitation/ Team Building; Networking; Generations
Organization	System Thinking; Change Management; Unit Briefs; System and Leadership Case Studies; Partnerships; Briefing by Headquarters; Risk Management
Community	Community-service Project
Reflection	Learning Journal; Leadership Paper; Case Study Briefing

Note. From *Chief Petty Officer Academy (COMDINST 1500.15F).* Washington, DC: U.S. Government Printing Office.

Table 7

Chief Petty Officer Academy Terminal Performance Objective Summary

Topic	General Description
Professionalism	1.1. Given the Coast Guard's core values, the Chief's Creed, the Roles and Responsibilities of Chief Petty Officers, and a Personal Wellness Profile, DEMONSTRATE the professionalism required of a Chief Petty Officer.
	1.2. Given an ethical dilemma, PARTICIPATE in discussions which include consequences, advantages, and potential individual unit, and organizational impact for each resolution.
Communication	2.1. Given scenarios, writing assignments, and a standard workstation, WRITE and/or EDIT the administrative items for spelling, grammar, punctuation, and content.
	2.2. Given a Coast Guard Process Improvement Guide, FACILITATE a group through a meeting.
Military Leadership	3.1. Given a leadership case study, PRESENT (as a member of a team) an analysis in a 30-45 minute presentation incorporating the team's findings on how Coast Guard's core values, ethical dilemmas, and principles of leadership and motivation models potentially impacted the performance of the entities in the case study. Provide solutions the team recommends to compensate deficiencies identified.
	3.2. Given leadership and motivational models, the Learning Style Inventory, an educational assessment, and Myers-Briggs Type Indicator, WRITE a paper (minimum 3 pages) which outlines how you will use the leadership and motivational models to help you achieve your professional and personal goals.
	3.3. Given experiential team building and problem solving exercises, ANALYZE how team roles and interpersonal interaction impacted the performance of the group.

Table 7– *Continued.*

Topic	General Description
	3.4. Given a scenario requiring a counseling session, DEMONSTRATE the skills and characteristics necessary to provide assistance with a specific problem, exploring alternative behaviors and means to cope with, or avoid problems, issues, or situations for groups and individuals.
System Thinker/ Lifelong Learner	4.1. Given the Commandant's Criteria for Performance Excellence General Business Factor's worksheet, PRESENT a 15 minute Unit Analysis Brief.
	4.2. Given a Coast Guard Process Improvement Guide, FACILITATE a group through a module of the Process Improvement Roadmap.
	4.3. Given a scenario, CONDUCT (as a member of a team) a 30-45 minute presentation of a systems diagram which shows the system, impact, risks, consequences, and linkages on other parts of the systems from the perspective of the individual, unit, Coast Guard organization, and community which incorporates a Change Management Plan.

Note. From *Chief Petty Officer Academy Curriculum Terminal Performance Objectives and Enabling Objectives*.

Table 8

Chief Petty Officer's Performance Evaluation Categories Compared to CPOACAD Course Objectives

Performance evaluation categories	CPOACAD course objective
Professional/ Specialty Knowledge	No
Professional Development	Yes
Administrative Ability	Yes
Organization	Yes
Using Resources	Yes
Monitoring Work	Yes
Safety and Occupational Health	No
Stamina	Yes
Communicating	Yes
Directing Others	Yes
Working with Others	Yes
Developing Subordinates	Yes
Responsibility	Yes
Evaluations	Yes
Work-life Sensitivity/ Expertise	Yes
Setting an Example	Yes
Military Bearing	Yes
Customs and Courtesies	Yes
Health and Well-Being	Yes
Integrity	Yes
Loyalty	No
Respecting Others	Yes
Human Relations	Yes
Adaptability	Yes

Note. From *CPOACAD Curriculum Terminal Performance Objectives and Enabling Objectives, CPOACAD General Course Outline,* and *Coast Guard Enlisted Evaluation Performance Form (CG-3788C).*

Null Hypotheses

The null hypothesis was a statistical hypothesis that was tested under the assumption that it was true. The null hypotheses for this study were rejected if there was a 95% probability that the μs were not equal to one another. If rejected, it was assumed that the μs were not equal to each other and there was either an increase or decrease over the period of the study. The hypotheses tested are overall performance, leadership ability, professionalism, organizational responsibilities, and military protocol.

Null Hypothesis 1

There is not a relationship between the CPOACAD graduation and an individual's overall performance.

$$H_{op0}: \mu_{op1} = \mu_{op2} = \mu_{op3} = \mu_{op4}$$

where:

μ_{op1} = overall performance 1 year before CPOACAD graduation.

μ_{op2} = overall performance 1 year after CPOACAD graduation.

μ_{op3} = overall performance 2 years after CPOACAD graduation.

μ_{op4} = overall performance 3 years after CPOACAD graduation.

Null Hypothesis 2

There is not a relationship between the CPOACAD graduation and an individual's performance (leadership abilities section).

$$H_{l0}: \mu_{l1} = \mu_{l2} = \mu_{l3} = \mu_{l4}$$

where:

μ_{l1} = leadership abilities section 1 year before CPOACAD graduation.

μ_{l2} = leadership abilities section 1 year after CPOACAD graduation.

μ_{l3} = leadership abilities section 2 years after CPOACAD graduation.

μ_{l4} = leadership abilities section 3 years after CPOACAD graduation.

Null Hypothesis 3

There is not a relationship between the CPOACAD graduation and an individual's performance (professionalism section).

$$H_{p0}: \mu_{p1} = \mu_{p2} = \mu_{p3} = \mu_{p4}$$

where:

μ_{p1} = professionalism section 1 year before CPOACAD graduation.

μ_{p2} = professionalism section 1 year after CPOACAD graduation.

μ_{p3} = professionalism section 2 years after CPOACAD graduation.

μ_{p4} = professionalism section 3 years after CPOACAD graduation.

Null Hypothesis 4

There is not a relationship between the CPOACAD graduation and an individual's performance (organizational responsibilities section).

$$H_{or0}: \mu_{or1} = \mu_{or\,2} = \mu_{or\,3} = \mu_{or\,4}$$

where:

$\mu_{or\,1}$ = organizational responsibilities section 1 year before CPOACAD graduation.

$\mu_{or\,2}$ = organizational responsibilities section 1 year after CPOACAD graduation.

$\mu_{or\,3}$ = organizational responsibilities section 2 years after CPOACAD graduation.

$\mu_{or\,4}$ = organizational responsibilities section 3 years after CPOACAD graduation.

Null Hypothesis 5

There is not a relationship between the CPOACAD graduation and an individual's performance (military protocol section).

$$H_{m0}: \mu_{m1} = \mu_{m2} = \mu_{m3} = \mu_{m4}$$

where:

μ_{m1} = military protocol section 1 year before CPOACAD graduation.

μ_{m2} = military protocol section 1 year after CPOACAD graduation.

μ_{m3} = military protocol section 2 years after CPOACAD graduation.

μ_{m4} = military protocol section 3 years after CPOACAD graduation.

Data Analysis and Examination

The intervention's effect on the Chief Petty Officer Academy graduates was analyzed in a mixed-method format. The quantitative section was evaluated with a repeated measure analysis of variance and effect size while the qualitative section was examined with interviews.

Quantitative Analysis

The null hypotheses associated with the first five research questions were designed to find a significant relationship between the graduation from the CPOACAD (independent variable) and increased performance (dependent variable) as documented by performance evaluations. Inferential statistics were used in testing the five null hypotheses. The goal for the inferential statistics was to predict if there had been a change in performance over the 4-year period of the study. One-way repeated measure analysis of variance (ANOVA) was used to assess the individual's yearly performance

evaluations. The repeated measure ANOVA was selected to test the equity of means

within each of the null hypotheses because all members of the sample are measured under

a number of different, consecutive conditions. As the sample was exposed to each

condition in turn, the measurement of the dependent variable was repeated. Using a

standard ANOVA in this case was not appropriate because it failed to model the

correlation between the repeated measures. The data would have violated the ANOVA

assumption of independence (Green & Salkind, 2003). Additionally, the standard

univariate ANOVA F test was not recommended when the within-subject factors have

more than two levels because one of its assumptions, the sphericity assumption, would be

violated (Stevens, 1996). Sphericity refers to the equality of variances of the differences

between level factors. The one-way repeated measure analysis of variance (ANOVA)

was the appropriate inferential statistic for this study because it was a multivariate test

that produces meaningful data for a non-independent group evaluated repeatedly over

time. As defined in the previous section, the following five null hypotheses were

evaluated.

(Overall performance) H_{op0}: $\mu_{op1} = \mu_{op2} = \mu_{op3} = \mu_{op4}$

(Leadership abilities section) H_{l0}: $\mu_{l1} = \mu_{l2} = \mu_{l3} = \mu_{l4}$

(Professionalism section) H_{p0}: $\mu_{p1} = \mu_{p2} = \mu_{p3} = \mu_{p4}$

(Organizational responsibilities section) H_{or0}: $\mu_{or1} = \mu_{or\,2} = \mu_{or\,3} = \mu_{or\,4}$

(Military protocol section) H_{m0}: $\mu_{m1} = \mu_{m2} = \mu_{m3} = \mu_{m4}$

A null hypothesis was rejected if it did not receive a p value of 0.05 or less. If a null

hypothesis was rejected, then a paired sample t-test was then completed. This t-test

determined which years the means were significantly different. The pairwise comparison

was completed using Wilks' Lambda. The paired sample *t*-test was rejected if the *p* value was 0.05 or less.

The effect size for the study was determined using Carlson and Schmidt's (1999) formula $d= (T_2- T_1)/ST_1$ (p. 852). T_1 represents the pre-graduation mean and T_2 was the average of the three post-graduation means. ST_1 represents the pre-graduation standard deviation. A d represents the effect size. Several standards exist in literature to assess the meaningfulness of effect size. For the purpose of this study, Cohen's (1977) assessment was used. Cohen suggests .2 as a minimal effect, .5 as a moderate effect, and 0.8 as a meaningful effect.

Missing data would create an unbalanced design within the data and create special difficulties for the analysis of variance. To eradicate this problem, Chiefs with missing data were excluded from the sample.

Qualitative Examination

The qualitative data collection was the second half of the mixed-method sequential exploratory design (Creswell, 2003). The qualitative section builds on the information gathered from the quantitative data analysis. The data analysis for this portion of the study used qualitative interviews. The interviews allowed the respondents to elaborate, in their own words, on their feelings about the Coast Guard Chief Petty Officer Academy. These qualitative, open-ended responses were evaluated by grouping "meaning themes" which were compared against the Chief Petty Officer performance evaluation form (CG-3788C).

This data collection employed purposive sampling from the original 40-member sample used in the quantitative study. The purposive sample was then separated into two

categories: Chiefs with no significant overall performance variation, as measured through their enlisted evaluation totals, and Chiefs with significant positive overall performance variation, as measured through their enlisted evaluation totals. The criteria for the no-significant-performance variation sample consideration included those CPOACAD graduates who had a Wilks' Lambda significance of more than 0.05. The two members selected to represent this group showed minimal change in enlisted evaluation totals over the 4-year period of the study.

The criteria for the significant positive overall performance sample variation consideration included those CPOACAD graduates who had a Wilks' Lambda significance of less than 0.05. The two members selected to represent this group displayed a large increase the first 2 years after graduation and then a leveling out. The goal was to select two members who exhibited similar results to the quantitative results. A detailed description of the selection criteria for choosing the four members for the qualitative section is presented in Appendix E.

Qualitative interviews were used to expand on the impact of the leadership training. The interviews allowed the respondents to elaborate, in their own words, on their feelings about the Coast Guard Chief Petty Officer Academy. Sources of data were analyzed for content using Lincoln and Guba's (1985) constant comparative method. Based on Glaser and Strauss's (1967) method, Lincoln and Guba (1985) added operational refinements to the step-by-step procedure in an effort to arrive at concise comparisons of the qualitative data. This method involved the process of unitizing and categorizing information into emergent themes.

The data were divided into the simplest feasible units of information to define the categories. This process was repeated until all the data were broken up into units of information. Next, each piece of information was coded by a predetermined participant's number. This system was used to detect useful information, specifically the difference between high and low performers.

Once the information was divided into units and coded, the data were sorted to discover recurring text that represented patterns. A file for each category was established. Each category was checked to ensure that it was internally homogeneous, externally heterogeneous, and mutually exclusive. The categories were also checked to determine if relationships existed among categories. Unitizing and categorizing was continued until the sources were exhausted, the categories were saturated, regularities emerged, or over-extension occurred as described by Lincoln and Guba (1985). Thereafter, all the categories were reviewed several times to see if any data were omitted.

The broad themes that developed were very similar to many of the 24 categories in the Coast Guard's enlisted evaluation form. Onwuegbuzie and Teddlie (2003) state that quantifying qualitative data for statistical analysis was a means to legitimize and assist with the interpretation of mixed-method results. To better complement the quantitative data, the interviews were recoded using the Coast Guard enlisted evaluation categories to sort the data. A file for each enlisted evaluation category was established. Each category was checked to ensure that it was internally homogeneous, externally heterogeneous, and mutually exclusive. The categorizing was continued until the sources were exhausted and the categories were saturated.

The open-ended comments from the interviews were analyzed and compared to the quantitative aspects of the study. These comments were categorized and evaluated to check validity through methodological triangulation.

Summary of Methodology

This chapter discussed the design of the study, the population, the sample, generalizability of the study, quantitative instrumentation and qualitative interview protocol, data collection, intervention, null hypotheses, and data analysis and examination. The purpose of this chapter was to give a description of the procedure used in obtaining data for this study. The data collected from this study were used to evaluate the connection between leadership development training and performance. The next chapter provides the results of the comprehensive statistical analysis and the narratives derived from the interviews.

CHAPTER IV

DATA ANALYSIS AND DISCUSSION OF RESULTS

The purpose of this chapter was to explore the data and provide a detailed

discussion on the results. The chapter was organized as follows: (a) an overview of the

participants of the study, (b) Coast Guard rate analysis, (c) treatment of the data, (d) an

evaluation of the hypothesis for each null hypothesis, and (e) qualitative section results.

Detailed statistical tables on the individual categories not included in this chapter can be

found in Appendix J.

The Participants

From January 1, 1999, to December 31, 1999, three hundred and ninety-nine

Chief Petty Officers graduated from the Chief Petty Officer Academy. However, this

study includes data from only 40 of those individuals. This study was conducted 6 years

after the Chief Petty Officers graduated from the CPOACAD, which negatively impacted

the response rate. Of the 359 Chief Petty Officers who were excluded from the study: 49

could not be located to ask for participation, 15 declined participation, 194 did not

respond to the request for participation, 68 had data that were irretrievable, and 31 were

not used because they were promoted within the 4-year period of the study.

The difficulty recovering data coupled with the exclusion of Chiefs who were

promoted during the 4 years of the study also significantly affected participation. Of the

139 Chief Petty Officers who agreed to participate in the study, only 71 Chiefs, or 48.9%, had data that were retrievable. Of the 71 with retrievable data, only 40 Chiefs, or 43.7% of the Chiefs who agreed to participate in the study, met the requirement of not being promoted during the 4-year study. If the same restrictions were placed on the original 399 Chief Petty Officers and all agreed to participate in the study, theoretically only 85, or 21.3%, could be used.

Forty of the 399 Chief Petty Officers who graduated the CPOACAD in 1999 had usable, recoverable data and allowed their information to be used in the study. With 139 Chief Petty Officers agreeing to take part in the study by releasing their employee evaluations, participation level equates to 34.8% of the total graduating class of 1999. Employee performance evaluations are considered personal and sensitive in nature. Korkeila et al. (2001) found that personal data and sensitive information lead to increased non-response rates in studies. With this mitigating factor in mind, it was not surprising that this study's response rate was below the 50% considered minimally adequate for traditional research (Babbie, 1998). Additionally, all the research for this study was completed via e-mail, a component of on-line research. Patrick, Black, and Whalen (1995) found response rates around 20% were not uncommon for unsolicited surveys, and response rates to online research were normally 10% or lower. This study exceeds the typical response rates for online research.

Coast Guard Rate Analysis

The demographic data collected on the sample were focused primarily on the jobs, or enlisted rate, held by the participating Chief Petty Officers. The 40 Chief Petty

Officers in the sample represent 65% of all the Coast Guard enlisted rates. Table 9

presents a detailed summary of the enlisted rates for the study's sample.

There was a large rate consolidation on July, 1, 2003, in the Coast Guard. This

consolidation dissolved the Quartermaster and Telecommunication Technician rates. The

Information System Technician, Operations Specialist, Electronic Technician, and a

redefined Boatswain's Mate were also created during the rate regrouping. Eleven of the

40 sample participants' rates were changed as the result of this rate consolidation.

Table 9

Enlisted Rates for the Total Sample of 40 Chief Petty Officers

Enlisted Rate	Frequency	%
Aviation Electrical Technician	3	7.5
Aviation Maintenance Technician	3	7.5
Aviation Survival Technician	0	0.0
Boatswain's Mate	7	17.5
Damage Controlman	3	7.5
Electrician's Mate	0	0.0
Electronic Technician	2	5.0
Food Service Specialist	1	2.5
Gunner's Mate	0	0.0
Health Service Technician	2	5.0
Information System Technician	2	5.0
Investigator	0	0.0
Machinery Technician	3	7.5
Marine Safety Technician	3	7.5
Musician	0	0.0
Operation Specialist	4	10.0
Port Security	0	0.0
Public Affairs Specialist	0	0.0
Storekeeper	2	5.0
Yeoman	5	12.5
Total	40	100.0

Note. This table reflects enlisted rates after the 2003 rate consolidation.

The rates in Table 9 represent the sample Chief Petty Officers' enlisted rates after the 2003 rate consolidation. The rates not represented in the sample are: Aviation Survival Technician, Gunner's Mate, Electrician's Mate, Public Affairs Specialist, Musician, Investigator, and Port Security. Investigator and Port Security rates are only available to enlisted reserve members. The other rates are available to active duty members.

While there were seven rates absent from the sample, the missing rates represent a very small percentage of the Coast Guard enlisted population. Of the 30,000 enlisted members in the Coast Guard, the missing rates represent approximately 2,000 members. The majority, approximately 93%, of the Coast Guard enlisted population was represented by the sample.

Treatment of the Data

The instrument used to evaluate the Chief Petty Officers' performance was the Coast Guard enlisted evaluation form. In higher education, there is talk of grade inflation (Johnson, 2003). The same phenomenon exists in performance appraisals of the American workforce (Glover, 1996). The Coast Guard's enlisted evaluation system also displayed inflation over time. The mean evaluation total for Chief Petty Officers who took the service-wide exam between 1999 and 2002 showed a consistent annual increase (Table 10). The service-wide exam is a test that enlisted members must take to be eligible for promotion. The scores for this test and a member's evaluation totals are the primary factors for promotion. The service-wide statistics represent the population data for all Coast Guard E-7s. Over the 4-year period, evaluation totals increased from a

Table 10

Mean Evaluation Totals for Chief Petty Officers Who Took the Coast Guard Annual Service Wide

Year	*n*	*M*	% increase over 1999
1999	743	128.32	--
2000	992	131.61	1.77
2001	876	132.47	2.44
2002	750	134.79	4.21

Note. Approximately 2,200 active duty and reserve Chief Petty Officers in the United States Coast Guard.

mean of 129.32 to 134.79. The 4-year period after 1999 displayed up to a 4.21% increase

in evaluation totals. In an effort to focus the results of this study on just the effects of the

CPOACAD's impact, the annual increase in a Chief's evaluation totals was removed.

The data in this study were adjusted by reducing the Chief's evaluation totals relative to

service-wide annual increase.   Specifically, the 24 individual evaluation category marks

were reduced relative to the service-wide annual increase. This reduction allowed for

each of the categories (e.g., leadership abilities, organizational responsibilities, etc.) to be

evaluated with the inflation creep removed.

Hypotheses

The hypotheses for this study were broken down into five quantitative null

hypotheses. The quantitative null hypotheses include overall performance, leadership

abilities, professionalism, organizational responsibilities, and military protocol sections.

Null Hypothesis 1 (Overall Performance)

Null hypothesis 1 predicted there would not be a relationship between

CPOACAD graduation and an individual's performance (overall performance).

H_{op0}: $\mu_{op1} = \mu_{op2} = \mu_{op3} = \mu_{op4}$

where:

μ_{op1} = overall performance 1 year before CPOACAD graduation.

μ_{op2} = overall performance 1 year after CPOACAD graduation.

μ_{op3} = overall performance 2 years after CPOACAD graduation.

μ_{op4} = overall performance 3 years after CPOACAD graduation.

The yearly Coast Guard enlisted evaluation form was the instrument used to test hypothesis 1. The overall performance included all 24 categories of the enlisted evaluation. To easily compare the overall performance with the section scores (null hypotheses 2 to 5), the total score was presented as the mean of all 24 categories, not the sum of all the categories. All of the means were corrected for the annual creep in scores found in the Chief Petty Officer service-wide data.

The statistical procedure used to test this hypothesis was an SPSS general linear model using a repeated measures analysis of variance (ANOVA). The sample of 40 CPOACAD graduates from the original pool of 399 was evaluated 1 year before graduation and the 3 years following graduation.

A one-way repeated measures ANOVA was conducted with the factor being time interval since the year prior to CPOACAD graduation and the dependent variable being the mean enlisted evaluation total score or overall performance, corrected for population inflation. The mean and standard deviation for the enlisted evaluations are presented in Table 11, while the mean and 95% confidence interval are presented in Figure 4. Table 12 presents the results of the repeated measures ANOVA. The results for the ANOVA indicated a significant time effect, Wilks' $\Lambda = 0.96$, $F(3, 2877) = 15.07$, $p < 0.01$. These

results suggest that leadership training positively impacts overall performance as measured through enlisted evaluations. Table 13 presents the mean, standard deviation, and ANOVA results for each of the subordinate categories of overall performance.

The results for effect size indicated less than minimal effect, $d = 0.18$. These results suggest that while leadership training positively impacts performance as measured through enlisted evaluations, the impact of the training on enlisted evaluations was minor.

Follow-up polynomial contrasts indicate a significant linear and quadratic effect with means increasing over time, $F(1,959) = 30.87$, $p < 0.01$, Partial $\eta^2 = 0.03$ and $F(1,959) = 7.85$, $p < 0.01$, Partial $\eta^2 = 0.01$, respectfully. The cubic polynomial contrast was nonsignificant.

Table 11

Mean and Standard Deviation at Four Time Intervals for Enlisted Evaluations (Overall Performance)

Time	M	SD
1 Yr PRE	5.19	0.81
1 Yr POST	5.30	0.82
2 Yrs POST	5.36	0.83
3 Yrs POST	5.35	0.77

Table 12

The Results of the Repeated Measures ANOVA for Overall Performance

Source	SS	df	MS	F	p
Between Subjects	1397.36	959	1.46		
Within Subjects	17.30	3	5.77	15.07	.000
Error	1100.71	2877	0.38		
Total	2515.37	3839			

Table 13

Mean, Standard Deviation, and ANOVA p *Values at Four Time Intervals for All Enlisted Evaluation Categories*

Category	Pre M (SD)	Post 1 M (SD)	Post 2 M (SD)	Post 3 M (SD)	p
Leadership Abilities					
Directing Others	5.19 (.80)	5.39 (.99)	5.45 (.75)	5.48 (.85)	0.30*
Working with Others	5.20 (.73)	5.31 (.96)	5.45 (.78)	5.45 (.82)	0.26*
Developing Subordinates	5.36 (.84)	5.44 (.68)	5.60 (.87)	5.63 (.79)	0.42*
Responsibility	5.26 (.88)	5.44 (.79)	5.50 (.86)	5.43 (.76)	0.45*
Evaluations	5.07 (.78)	5.24 (.77)	5.13 (.82)	5.03 (.79)	0.58
Work-life Sensitivity	4.77 (.76)	5.03 (.84)	5.13 (.85)	5.05 (.83)	0.15*
Setting the Example	5.12 (.81)	5.29 (.96)	5.48 (.93)	5.43 (.70)	0.07*
Professionalism					
Health and Well-Being	4.82 (.76)	4.96 (.89)	4.93 (.86)	4.85 (.87)	0.85
Integrity	5.49 (.85)	5.54 (.67)	5.40 (.85)	5.55 (.52)	0.63
Loyalty	5.60 (.74)	5.56 (.66)	5.50 (.70)	5.60 (.62)	0.81
Respecting Others	5.31 (.65)	5.44 (.68)	5.45 (.67)	5.45 (.60)	0.55*
Human Relations	4.73 (.74)	4.86 (.66)	4.93 (.73)	4.80 (.59)	0.60
Adaptability	5.67 (.65)	5.64 (.98)	5.70 (.77)	5.75 (.68)	0.89
Organizational Responsibilities					
Professional/ Specialty Knowledge	5.61 (.78)	5.69 (.76)	5.75 (.93)	5.73 (.87)	0.83
Professional Development	5.09 (.78)	5.24 (.80)	5.10 (.93)	5.28 (.87)	0.54
Administrative Ability	5.11 (.72)	5.06 (.75)	5.18 (.87)	5.20 (.82)	0.79
Organization	5.25 (.88)	5.31 (.84)	5.40 (.79)	5.40 (.70)	0.66
Using Resources	5.25 (.82)	5.39 (.75)	5.65 (.76)	5.53 (.70)	0.02*
Monitoring Work	5.14 (.79)	5.06 (.78)	5.40 (.78)	5.25 (.68)	0.07
Safety	4.71 (.81)	5.04 (.73)	5.08 (.80)	4.88 (.76)	0.15*
Stamina	5.37 (.85)	5.61 (.82)	5.63 (.87)	5.58 (.75)	0.23*
Communication	5.20 (.77)	5.16 (.79)	5.20 (.74)	5.40 (.73)	0.32
Military Protocol					
Military Bearing	5.02 (.67)	5.09 (.72)	5.18 (.77)	5.25 (.75)	0.34*
Customs and Courtesies	5.20 (.62)	5.36 (.60)	5.43 (.50)	5.35 (.58)	0.28*

Note. The multivariate *p* value was calculated through a one-way repeated measures ANOVA. An "*" represents an effect size (pre compared to the mean of post1, post 2, and post 3) greater than 0.2 or minimum effect. There were no effect sizes greater than 0.5 or moderate effect.
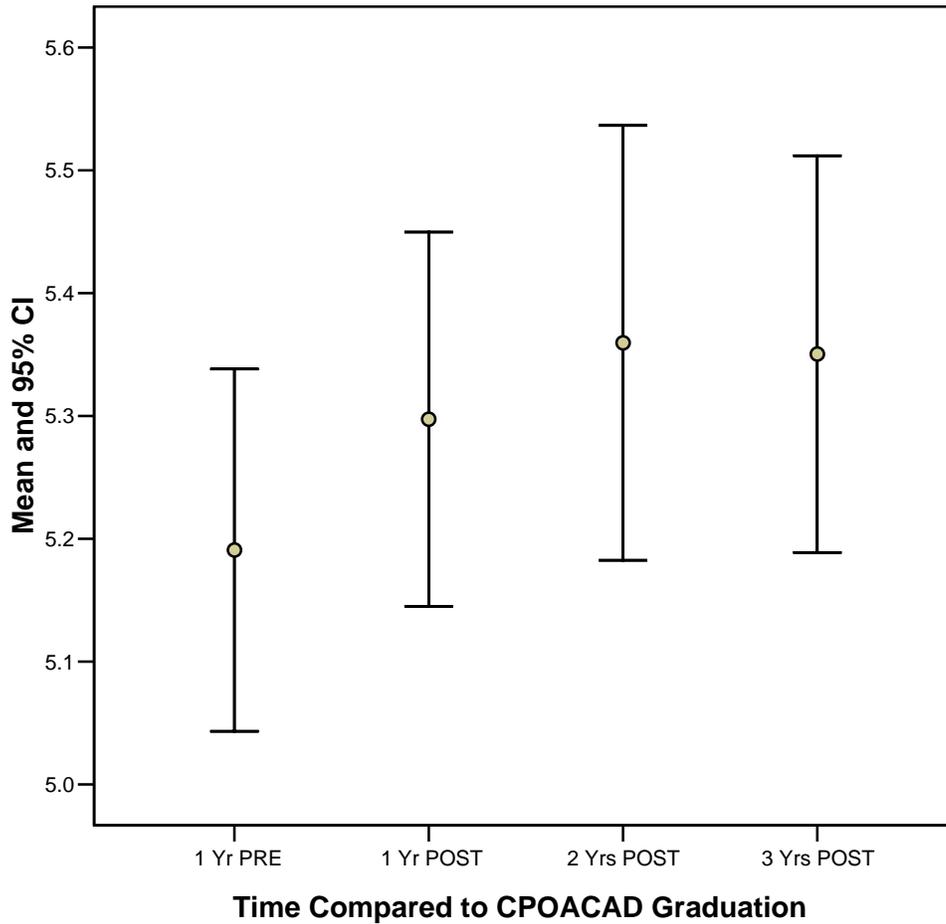
Figure 4. Mean and 95% confidence interval for enlisted evaluations (overall performance).

While the repeated measures ANOVA shows that there was a significant difference between the means, the paired sample *t*-test examines when the significant difference was occurring. The *t*-test results are presented in Table 14. The results indicate the pre-graduation evaluation ($M = 5.19$, $SD = 0.81$) was significantly less than all three post-graduation evaluations. The post 2 ($M = 5.36$, $SD = 0.83$) evaluation totals

Table 14

Paired Sample t-*test Comparing the Four Time Intervals of Enlisted Evaluations (Overall Performance)*

Pair	*M* Diff	*SD*	*SE*	*t*
1PRE-1POST	-0.11	0.88	0.03	-3.76**
1PRE-2POST	-0.17	0.89	0.03	-5.90**
1PRE-3POST	-0.16	0.94	0.03	-5.26**
1POST-2POST	-0.06	0.77	0.02	-2.50*
1POST-3POST	-0.05	0.93	0.03	-1.77
2POST-3POST	0.01	0.83	0.03	0.34

*The *t*-test was significant at the 0.05 level. ** 0.01 level.

were significantly higher than the 2 previous years in the study but statistically equivalent to post 3 ($M = 5.35$, $SD = 0.77$). Post 3 was considered statistically equivalent to both post 1 ($M = 5.30$, $SD = 0.82$) and post 2. In summary, the effects of the CPOACAD training continually increased evaluation totals the first 2 years after graduation and then returned to somewhere between the post 1 and post 2 levels on the 3rd year.

This research shows that Chief Petty Officers increased in total performance when they were given leadership development training. The overall increase in performance was 2.8%. This measurement was an average of each of the three post CPOACAD graduation years. All measurements were adjusted for evaluation inflation. The increase in overall performance the first post-graduation year was larger than the subsequent 2 years. The performance peaked on the 2nd year after graduation with an overall gain of 3.3%. The effect size was 0.18 for this study, which was slightly less than Collins found ($M = 0.38$) in her research on the effects of leadership development training on personal performance (Collins, 2002).

Null Hypothesis 2 (Leadership Abilities Section)

Null hypothesis 2 predicted there would not be a relationship between CPOACAD graduation and an individual's performance (leadership abilities section score).

H_{l0}: $\mu_{l1} = \mu_{l2} = \mu_{l3} = \mu_{l4}$

where:

μ_{l1} = leadership abilities section 1 year before CPOACAD graduation.

μ_{l2} = leadership abilities section 1 year after CPOACAD graduation.

μ_{l3} = leadership abilities section 2 years after CPOACAD graduation.

μ_{l4} = leadership abilities section 3 years after CPOACAD graduation.

The yearly Coast Guard enlisted evaluation form was the instrument used to test hypothesis 2. The leadership abilities section score included seven categories of the enlisted evaluation. To easily compare the overall performance with the section scores (null hypotheses 1, 3, 4, and 5), the total score was presented as the mean of all seven categories, not the sum of the category. The mean was corrected for the annual creep in scores found in the Chief Petty Officer service-wide data.

The statistical procedure used to test this hypothesis was an SPSS general linear model using a repeated measures analysis of variance. The sample of 40 CPOACAD graduates from the original pool of 399 was evaluated 1 year before graduation and the 3 years following graduation.

A one-way repeated measures ANOVA was conducted with the factor being time interval since the year prior to Chief Petty Officer Academy graduation and the dependent variable being the mean enlisted evaluation score leadership abilities section,

corrected for population inflation. The mean and standard deviation for enlisted

evaluations are presented in Table 15, while the mean and 95% confidence interval are

presented in Figure 5. Table 16 presents the results of the repeated measures ANOVA.

The results for the ANOVA indicated a significant time effect, Wilks' $\Lambda = 0.93$, $F(3,$

$837) = 7.83$, $p < 0.01$. These results suggest that leadership training positively impacts

leadership as measured through enlisted evaluations.

The results for effect size indicate a minimal effect, $d = 0.26$. These results

suggest that while leadership training positively impacts leadership as measured through

enlisted evaluations, the impact of the training on enlisted evaluations was minor.

Table 15

*Mean and Standard Deviation at Four Time Intervals for Enlisted Evaluations
(Leadership Abilities Section)*

Time	M	SD
1 Yr PRE	5.14	0.81
1 Yr POST	5.30	0.86
2 Yrs POST	5.39	0.85
3 Yrs POST	5.36	0.81

Table 16

The Results of the Repeated Measures ANOVA for the Leadership Abilities Section

Source	SS	df	MS	F	p
Between Subjects	409.63	279	1.47		
Within Subjects	10.28	3	3.43	7.83	.000
Error	366.23	837	0.44		
Total	786.14	1119			
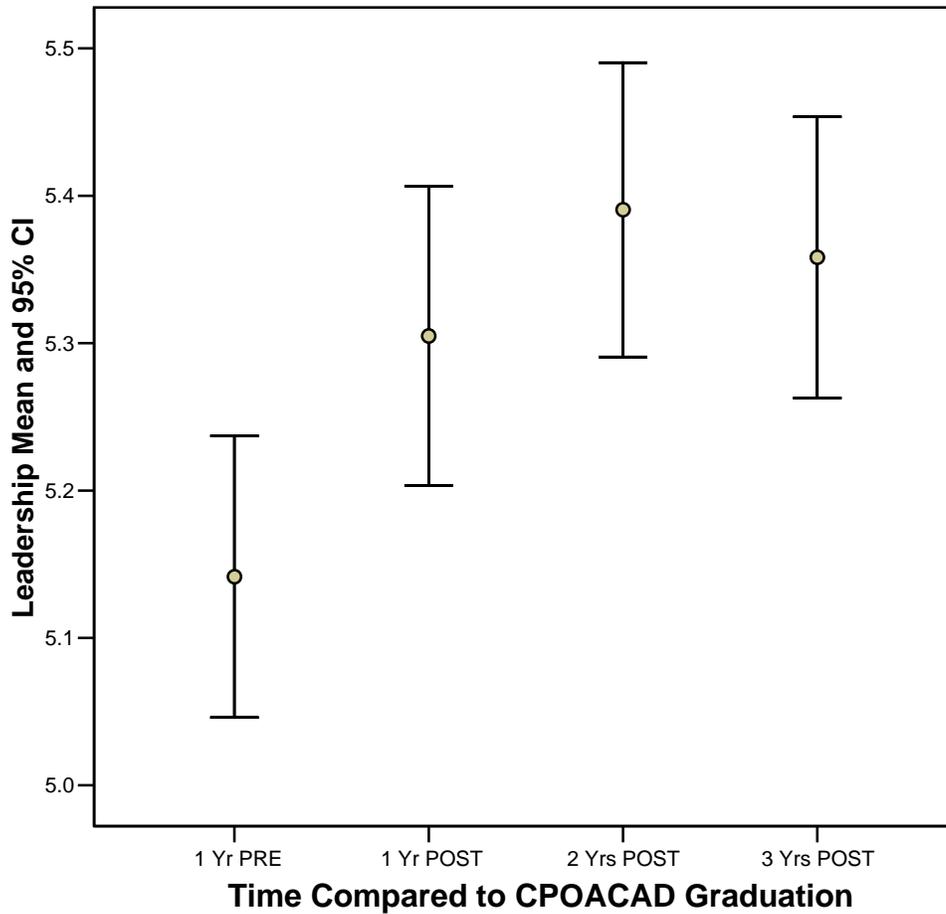
Figure 5. Mean and 95% confidence interval for the enlisted evaluations (leadership abilities section).

While the repeated measures ANOVA shows that there was a significant difference between the means, the paired sample *t*-test examines when the significant difference was occurring. The *t*-test results are presented in Table 17. The results indicate the pre-graduation leadership abilities section evaluation ($M = 5.14$, $SD = 0.81$) was significantly less than all three post-graduation evaluations. Additionally, the post 1 ($M = 5.30$, $SD = 0.86$), post 2 ($M = 5.39$, $SD = 0.81$), and post 3 ($M = 5.36$, $SD = 0.81$) year leadership abilities section evaluation means were considered statistically

Table 17

Paired Sample t-*test Comparing the Four Time Intervals of the Enlisted Evaluations Leadership Abilities Section.*

Pair	$\underline{M}$ Diff	SD	SE	t
1PRE-1POST	-0.16	0.93	0.06	-2.95**
1PRE-2POST	-0.25	0.93	0.06	-4.46**
1PRE-3POST	-0.22	1.02	0.06	-3.54**
1POST-2POST	-0.09	0.82	0.05	-1.76
1POST-3POST	-0.05	1.02	0.06	-0.87
2POST-3POST	-0.03	0.87	0.05	0.62

**The *t*-test was significant at the 0.01 level.

equivalent. In summary, the effects of the CPOACAD training increased leadership

abilities section evaluations the year after graduation and then leveled off, showing no

additional increase.

The leadership abilities section consisted of the following seven categories:

directing others, working with others, developing subordinates, responsibility,

evaluations, work life sensitivity/expertise, and setting the example. With the

CPOACAD focusing the majority of its instruction on leadership training, it was

expected that this section would show improvement over the 4-year period. This research

shows that Chief Petty Officers increased in leadership performance when they were

given leadership development training. The overall increase in leadership performance

was 4.1%. This measurement was an average of each of the three post-CPOACAD

graduation years. All measurements were adjusted for evaluation inflation. The

leadership-abilities increase the first post-graduation year was larger than the subsequent

2 years. The performance peaked on the 2nd year after graduation with an overall

increase of 4.9%. The effect size was 0.26 for this study, which was slightly less than

Collins (2002) found ($M = 0.38$) in her research on the effects of leadership development training on personal performance.

<center>Null Hypothesis 3 (Professionalism Section)</center>

Null hypothesis 3 predicted there would not be a relationship between CPOACAD graduation and an individual's performance (professionalism section score).

$H_{p0}: \mu_{p1} = \mu_{p2} = \mu_{p3} = \mu_{p4}$

where:

μ_{p1} = professionalism section 1 year before CPOACAD graduation.

μ_{p2} = professionalism section 1 year after CPOACAD graduation.

μ_{p3} = professionalism section 2 years after CPOACAD graduation.

μ_{p4} = professionalism section 3 years after CPOACAD graduation.

The yearly Coast Guard enlisted evaluation form was the instrument used to test hypothesis 3. The professionalism section score included six categories of the enlisted evaluation. To easily compare the overall performance with the section scores (null hypotheses 1, 2, 4, and 5), the professionalism score was presented as the mean of all six categories, not the sum of the category. The mean was corrected for the annual creep in scores found in the Chief Petty Officer service-wide data.

The statistical procedure used to test this hypothesis was an SPSS general linear model using a repeated measures analysis of variance. The sample of 40 CPOACAD graduates from the original pool of 399 was evaluated 1 year before graduation and the 3 years following graduation.

A one-way repeated measures ANOVA was conducted with the factor being time interval since the year prior to Chief Petty Officer Academy graduation and the

dependent variable being the mean enlisted evaluation score professionalism section, corrected for population inflation. The mean and standard deviation for enlisted evaluations are presented in Table 18, while the mean and 95% confidence interval are presented in Figure 6. Table 19 presents the results of the repeated measures ANOVA. The results for the ANOVA indicated a nonsignificant time effect, Wilks' $\Lambda = 0.99$, $F(3, 717) = 0.64$, $p = 0.60$. All follow-up polynomial contrasts were also nonsignificant. The results for effect size indicate less than minimal effect, $d = 0.07$.

Table 18

Mean and Standard Deviation at Four Time Intervals for Enlisted Evaluations (Professionalism Section)

Time	M	SD
1 Yr PRE	5.27	0.81
1 Yr POST	5.33	0.82
2 Yrs POST	5.32	0.82
3 Yrs POST	5.34	0.75

Table 19

The Results of the Repeated Measures ANOVA for the Professionalism Section

Source	SS	df	MS	F	p
Between Subjects	366.83	239	1.54		
Within Subjects	0.66	3	0.22	0.64	.589
Error	245.11	717	0.34		
Total	612.60	959			
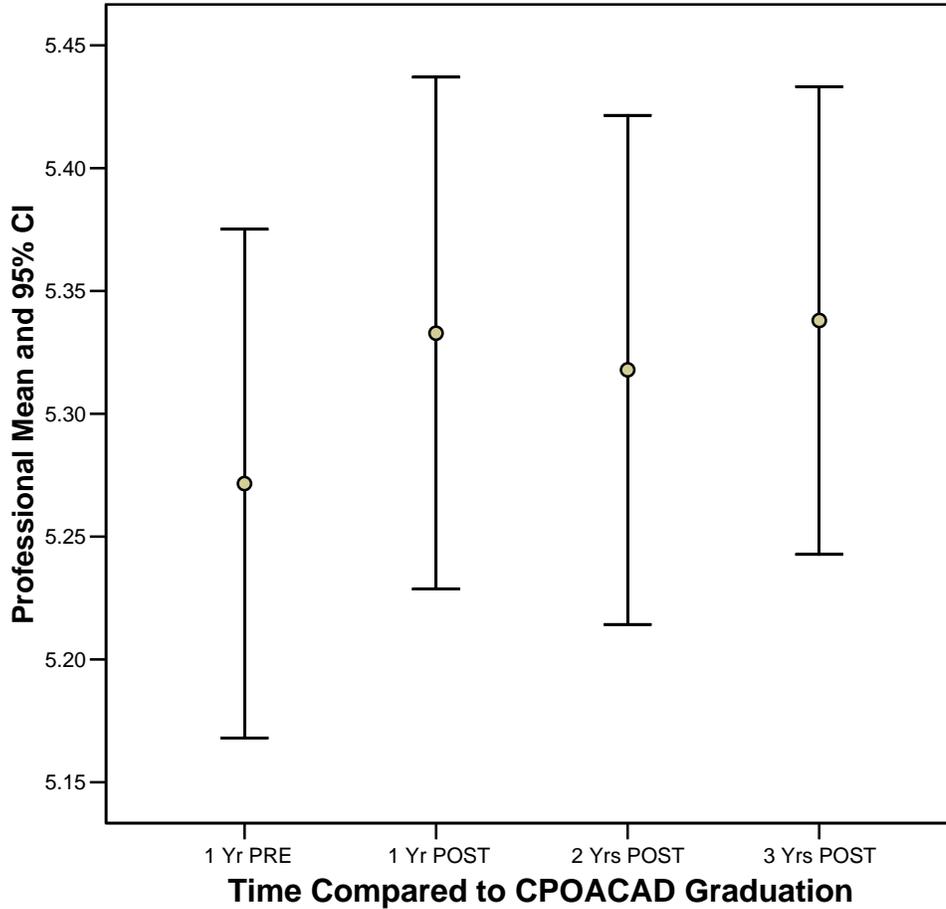
Figure 6. Mean and 95% confidence interval for the enlisted evaluations (Professionalism Section).

The professionalism section consisted of the following six categories: health and well-being, integrity, loyalty, respecting others, human relations, and adaptability. With the CPOACAD focusing the majority of its instruction on leadership training, it was not expected that this section would show significant improvement over the 4-year period. While many of these subjects were discussed during the month-long program, the intrinsic nature of the professionalism categories made the subject matter more difficult to transfer.

The CPOACAD graduates in the study did not show a significant relationship between their professionalism section performance as documented by yearly performance evaluations and CPOACAD graduation. The effect size was 0.07 for this study, which is at the bottom range of what Collins (2002) found (range = 0.04 to 2.10) in her research on the effects of leadership development training on personal performance.

Null Hypothesis 4 (Organizational Responsibilities Section)

Null hypothesis 4 predicted there would not be a relationship between CPOACAD graduation and an individual's performance (organizational responsibilities section score).

H_{or0}: $\mu_{or1} = \mu_{or\,2} = \mu_{or\,3} = \mu_{or\,4}$

where:

$\mu_{or\,1} =$ organizational responsibilities section 1 year before CPOACAD graduation.

$\mu_{or\,2} =$ organizational responsibilities section 1 year after CPOACAD graduation.

$\mu_{or\,3} =$ organizational responsibilities section 2 years after CPOACAD graduation.

$\mu_{or\,4} =$ organizational responsibilities section 3 years after CPOACAD graduation.

The yearly enlisted evaluation form was the instrument used to test hypothesis 4. The organizational responsibilities section score included nine categories of the enlisted evaluation. To easily compare the overall performance with the section scores (Null Hypotheses 1, 2, 3, and 5), the performance score was presented as the mean of all nine

categories, not the sum of the category. The mean was corrected for the annual creep in

scores found in the Chief Petty Officer service-wide data.

The statistical procedure used to test this hypothesis was an SPSS general linear

model using a repeated measures analysis of variance. The sample of 40 CPOACAD

graduates from the original pool of 399 was evaluated 1 year before graduation and the 3

years following graduation.

A one-way repeated measures ANOVA was conducted with the factor being time

interval since the year prior to Chief Petty Officer Academy graduation and the

dependent variable being the mean enlisted evaluation score organizational

responsibilities section, corrected for population inflation. The mean and standard

deviation for enlisted evaluations are presented in Table 20, while the mean and 95%

confidence interval are presented in Figure 6. Table 21 presents the results of the

repeated measures ANOVA. The results for the ANOVA indicated a significant time

effect, Wilks' $\Lambda = 0.95$, $F(3, 357) = 6.62$, $p < 0.01$. These results suggest that leadership

training positively impacts performance as measured through enlisted evaluations.

Table 20

*Mean and Standard Deviation at Four Time Intervals for Enlisted Evaluations
(Organizational Responsibilities Section)*

Time	*M*	*SD*
1 Yr PRE	5.19	0.83
1 Yr POST	5.28	0.80
2 Yrs POST	5.38	0.86
3 Yrs POST	5.36	0.79

Table 21

The Results of the Repeated Measures ANOVA for Organizational Responsibilities Section

Source	SS	df	MS	F	p
Between Subjects	549.54	359	1.53		
Within Subjects	7.70	3	2.57	6.62	.000
Error	417.29	1077	0.39		
Total	974.53	1439			
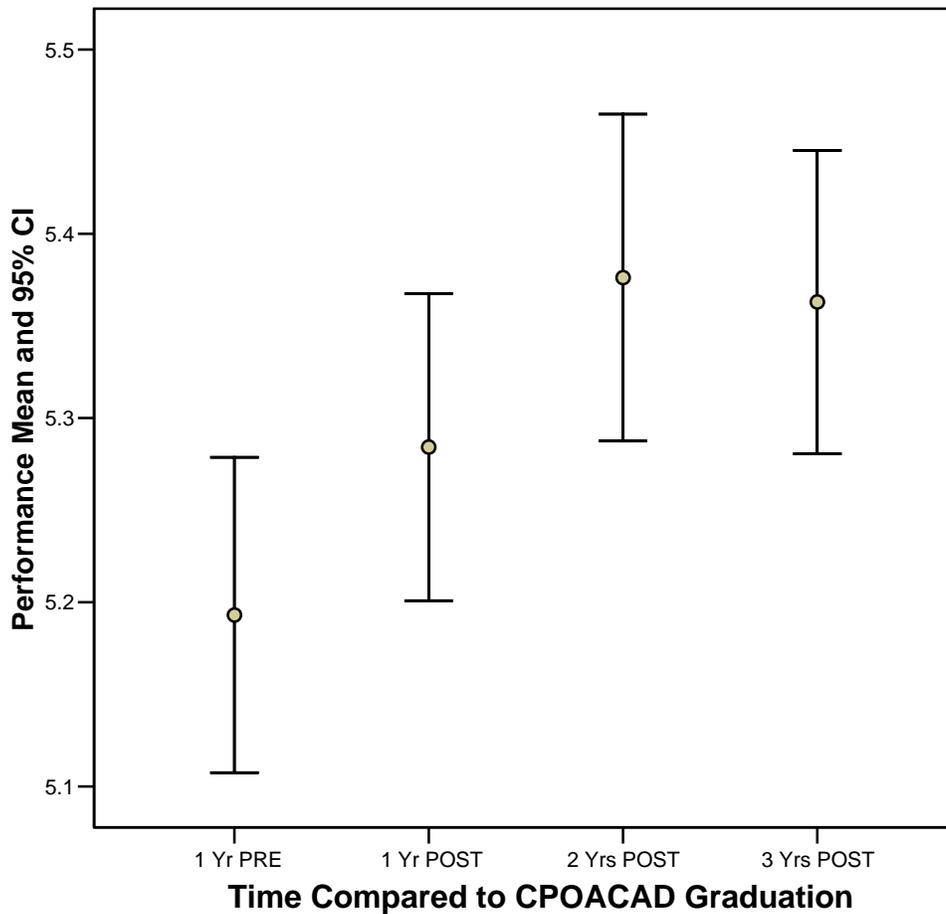
Figure 7. Mean and 95% confidence interval for enlisted evaluations (Organizational Responsibilities section).

The results for effect size indicate less than minimal effect, $d = 0.18$. These results suggest that while leadership training positively impacts performance as measured through enlisted evaluations, the impact of the training on the organizational responsibilities section of the enlisted evaluations was minor.

Follow-up polynomial contrasts indicate a significant linear effect with means increasing over time, $F(1,1077) = 14.01$, $p < 0.01$, Partial $\eta^2 = 0.04$. The quadratic and cubic polynomial contrasts were nonsignificant.

While the repeated measures ANOVA shows that there was a significant difference between the means, the paired sample *t*-test examines when the significant difference was occurring. The *t*-test results are presented in Table 22. The results indicate the pre-graduation organizational responsibilities section evaluation ($M = 5.19$, $SD = 0.83$) was significantly less than the last two post-graduation evaluations. The pre-graduation and post 1 ($M = 5.28$, $SD = 0.80$) evaluation means were considered statistically equivalent indicating no change in organizational responsibilities the 1st year after graduation. The post 2 organizational responsibilities section evaluations were significantly higher than the 2 previous years in the study but statistically equivalent to post 3 ($M = 5.36$, $SD = 0.79$). Post 3 was considered statistically equivalent to both post 1 and post 2 ($M = 5.38$, $SD = 0.86$). In summary, the organizational responsibilities section evaluation does not increase the 1st year after graduation, but does increase the next year returning to a level somewhere between post 1 and post 2.

The organizational responsibilities section consisted of the following nine categories: professional/specialty knowledge, professional development, administrative ability, organization, using resources, monitoring work, safety, stamina, and

Table 22

Paired Sample t-*test for Four Time Intervals of Enlisted Evaluations Organizational Responsibilities Section*

Pair	*M* Diff	SD	SE	t
1PRE-1POST	-0.10	0.89	0.05	-1.95
1PRE-2POST	-0.18	0.89	0.05	-3.90**
1PRE-3POST	-0.17	0.94	0.05	-3.42**
1POST-2POST	-0.09	0.81	0.04	-2.16*
1POST-3POST	-0.08	0.93	0.05	-1.61
2POST-3POST	0.01	0.82	0.04	0.31

*The *t*-test was significant at the 0.05 level. ** 0.01 level.

communication. With the CPOACAD focusing the majority of its instruction on

leadership training, it was plausible that this section would show improvement over the 4-

year period. This research shows that Chief Petty Officers increased in performance

when they were given leadership development training. The overall increase in

organizational responsibilities section performance was 2.9%. This measurement was an

average of each of the three post-CPOACAD graduation years. All measurements were

adjusted for evaluation inflation. The increase in organizational performance the 1st post-

graduation year was larger than the subsequent 2 years. The organizational

responsibilities section peaked on the 2nd year after graduation with an overall increase of

3.7%. The effect size was 0.18 for this study, which is slightly less than Collins (2002)

found (*M* = 0.38) in her research on leadership training's effect on personal performance.

Null Hypothesis 5 (Military Protocol Section)

Null hypothesis 5 predicted there would not be a relationship between

CPOACAD graduation and an individual's performance (military protocol section score).

H_{m0}: $\mu_{m1} = \mu_{m2} = \mu_{m3} = \mu_{m4}$

where:

μ_{m1} = military protocol section 1 year before CPOACAD graduation.

μ_{m2} = military protocol section 1 year after CPOACAD graduation.

μ_{m3} = military protocol section 2 years after CPOACAD graduation.

μ_{m4} = military protocol section 3 years after CPOACAD graduation.

The yearly Coast Guard enlisted evaluation form was the instrument used to test hypothesis 5. The military protocol section score included two categories of the enlisted evaluation. To easily compare the military protocol with the section scores (null hypotheses 1, 2, 3, and 4), the military protocol was presented as the mean of the two categories, not the sum of the category. The mean was corrected for the annual creep in scores found in the Chief Petty Officer service-wide data.

The statistical procedure used to test this hypothesis was an SPSS general linear model using a repeated measures analysis of variance. The sample of 40 CPOACAD graduates from the original pool of 399 was evaluated 1 year before graduation and the 3 years following graduation.

A one-way repeated measures ANOVA was conducted with the factor being time interval since the year prior to Chief Petty Officer Academy graduation and the dependent variable being the mean enlisted evaluation score military protocol section, corrected for population inflation. Table 23 presents the results of the repeated measures ANOVA.

The mean and standard deviation for enlisted evaluations are presented in Table 24, while the mean and 95% confidence interval are presented in Figure 8. The results for the

ANOVA indicated a nonsignificant time effect, Wilks' $\Lambda = 0.93$, $F(3, 237) = 2.27$, $p = 0.08$. The results for effect size indicate a minimal effect, $d = 0.26$.

Follow-up polynomial contrasts indicate a significant linear effect with means increasing over time, $F(1,79) = 4.67$, $p = 0.03$, Partial $\eta^2 = 0.06$. The quadratic and cubic polynomial contrasts were nonsignificant.

The military protocol section consisted of the two categories: military bearing and customs and courtesies. With the CPOACAD focusing the majority of its instruction on military leadership training, it was plausible that this section would show improvement over the 4-year period. The CPOACAD graduates in the study did not show a significant relationship between their military protocol as documented by yearly performance evaluations and CPOACAD graduation. The effect size was 0.26, which slightly less than Collins (2002) found ($M = 0.38$) in her research on the effects of leadership development training on personal performance.

Table 23

Mean and Standard Deviation at Four Time Intervals for Enlisted Evaluations (Military Protocol Section)

Time	M	SD
1 Yr PRE	5.11	0.65
1 Yr POST	5.22	0.67
2 Yrs POST	5.30	0.66
3 Yrs POST	5.30	0.67

Table 24

The Results of the Repeated measures ANOVA for Military Protocol Section

Source	SS	df	MS	F	p
Between Subjects	69.79	79	0.88		
Within Subjects	1.98	3	0.66	2.27	.081
Error	68.76	237	0.29		
Total	140.53	319			
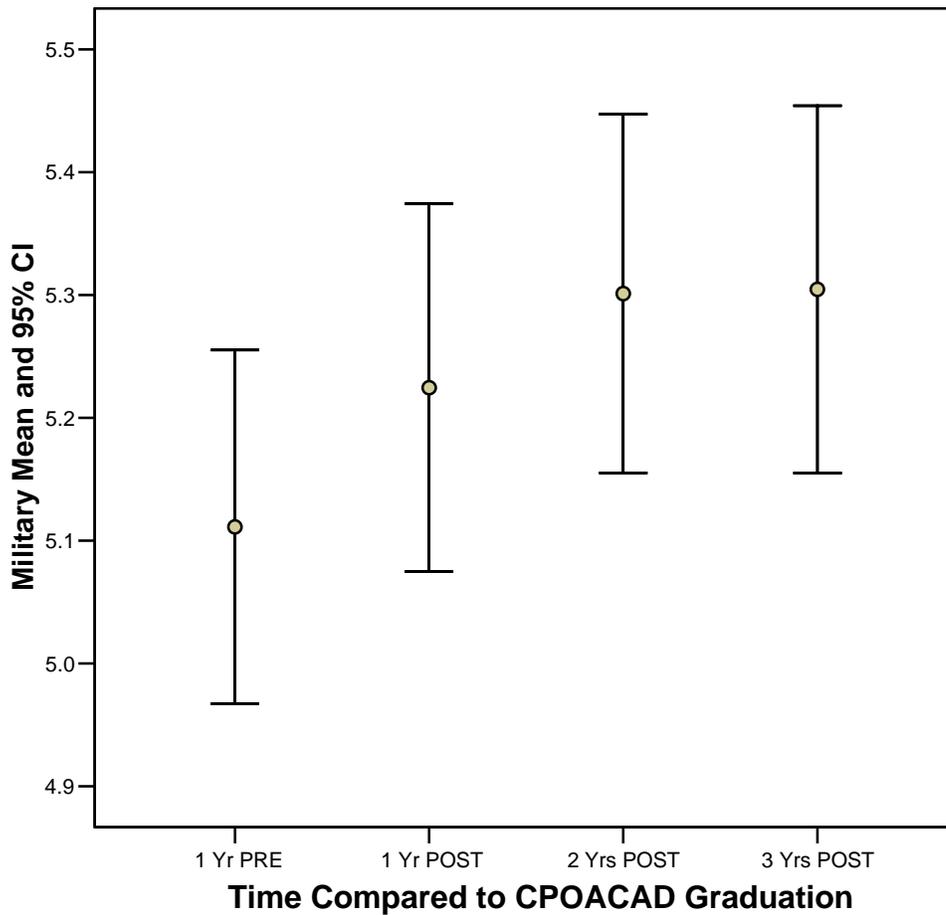
Figure 8. Mean and 95% confidence interval for enlisted evaluations (Military Protocol Section).

Qualitative Section Results

Before the qualitative results are presented, a brief summary of the Chief Petty Officer Academy program was necessary to give context to the information. The intended framework of the program was very similar to an undergraduate college/ corporate training environment. While it was not as militaristic as some Coast Guard training, the training was held in a military environment by primarily military instructors, so aspects of military protocol were interweaved through the program. The normal routine was physical exercise in the morning followed by approximately 8 hours of class. Group tasks and projects were completed after class and on weekends. At times, these group projects were quite time intensive.

The leadership training was focused on the practical application of leadership, group dynamics, conflict resolution/mediation, and personal introspection. Additionally, there were many lectures and discussions on writing techniques, Coast Guard work-life programs, Commandant's Criteria for Performance Excellence, and other non-leadership-specific items critical for a successful Chief. The majority of training focused on providing information and techniques that could immediately be used in the work environment with less focus on abstract theory. The enlisted capstone course was designed to be more humanist and transformational than most Coast Guard instruction. There was a significant amount self-examination and reflection throughout the program. The final project, due at graduation, was a reflective paper explaining the impact the CPOACAD had on the students' personal and professional lives. An example of a CPOACAD graduate's reflective paper can be found in Appendix K.

With this transformational focus of the CPOACAD program in mind, the qualitative results can be explored. The qualitative data collection was the second half of the mixed-method sequential exploratory design (Creswell, 2003). This data collection employed purposive sampling from the original 40-member sample used in the quantitative study. The purposive sample was then separated into two categories: Chiefs with no significant performance variation, as measured through their enlisted evaluation overall performance, and Chiefs with significant positive performance variation, as measured through their enlisted evaluation overall performance. A detailed description of the selection criteria for choosing the four members for the qualitative section is presented in Appendix E.

The qualitative results were based on graduate interviews. The interviews allowed the respondents to elaborate, in their own words, on their feelings about the Coast Guard Chief Petty Officer Academy. This method involved the process of unitizing and categorizing information into emergent themes.

The broad themes that were developed were very similar to many of the 24 categories in the Coast Guard's enlisted evaluation form. The Coast Guard enlisted evaluation form for the Chief Petty Officer consists of 24 categories which are grouped into four sections, or meta-themes. The four meta-themes are leadership abilities, organizational responsibilities, military protocol, and professionalism. Fifteen of the 24 enlisted evaluation categories, or 62.5%, were discussed in the qualitative interviews. The structure of the meta-themes and discussed subordinate themes are represented in Figure 9. These meta-themes are equivalent to the quantitative sections evaluated in hypotheses 2 through 5.
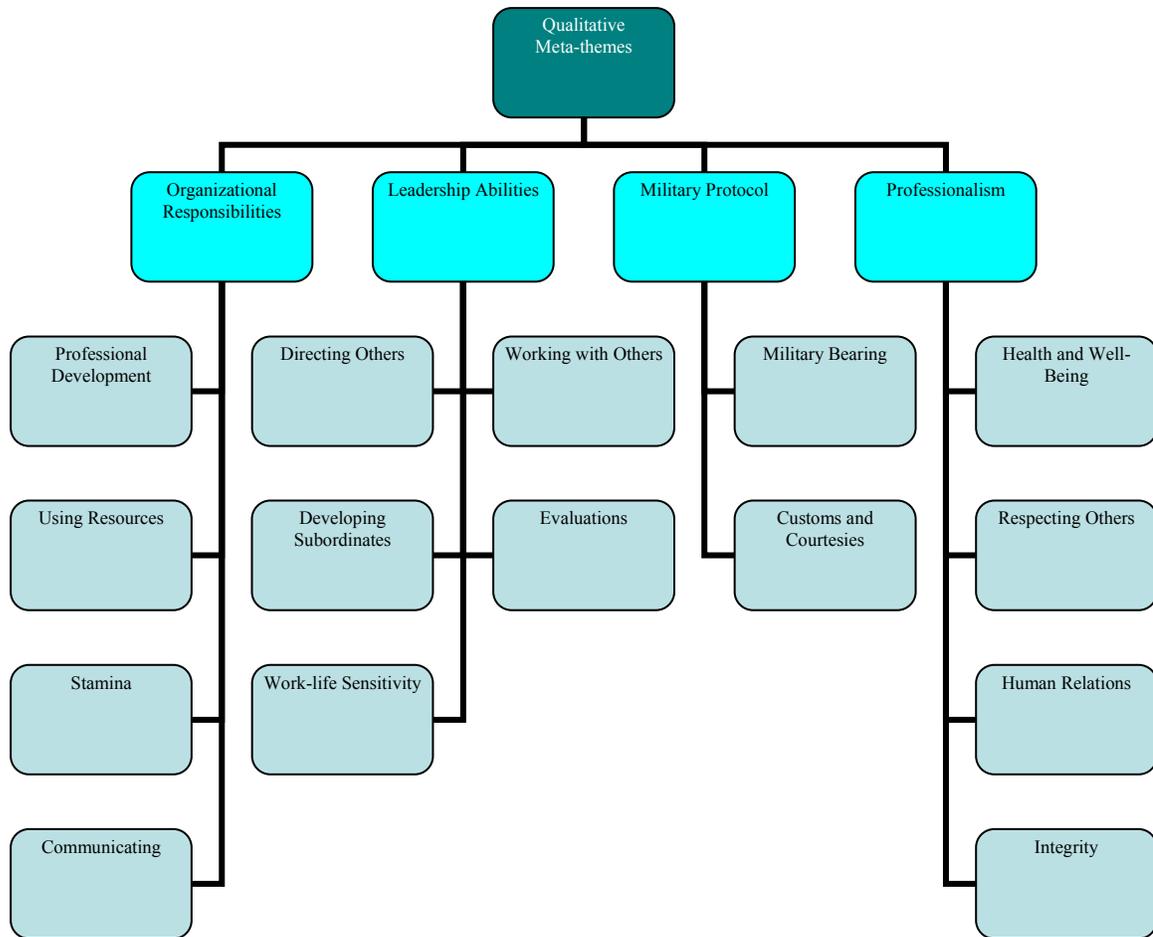
Figure 9. The structure of qualitative meta-themes.

To determine the amount of interview discussion, two types of manifest effect sizes were calculated on the qualitative results (Onwuegbuzie & Teddlie, 2003). The frequency of occurrence was obtained by tabulating the number of times a theme or meta-theme was mentioned during the interviews. The intensity effect size was calculated by converting the frequency of occurrence in each theme into a percentage. The manifest effect sizes for all four meta-themes are calculated and displayed in Table 25. Table 26 illustrates the results for the computation of the manifest effect size for each of the categories or themes.

Each of the meta-themes was examined in-depth. The data that did not fall into a meta-theme were also examined in an effort to discover common themes. The following segments are a summary of the four meta-themes and additionally discovered themes.

Table 25

Manifest Effect Size and Frequency Distribution for the Four Meta-themes Associated With the Chief Petty Officer Academy

Meta-themes	Number of themes within each meta-theme	Frequency of occurrence (units)	Intensity effect sizes (% of total)
Leadership Abilities	5	29	51.8
Organizational Responsibilities	4	19	34.0
Military Protocol	2	4	7.1
Professionalism	4	4	7.1
Total	15	56	100.0

Leadership Abilities

The USCG Commandant Instruction 1500.15F establishes the policy and procedure for the Chief Petty Officer Academy. It states that the ultimate goal of the CPOACAD is to provide the critical leadership skill set needed by all Chief Petty Officers (USCG, 2003). With this primary focus it was understandable that the leadership abilities meta-theme was the most prominent category with a manifest effect size of 51.8%. The Coast Guard describes the leadership abilities section as "a member's ability to direct, guide, develop, influence, and support others performing work" (USCG, 2005b, p. 10.b.3). The leadership abilities meta-theme was not defined by a single definition. The meta-theme was defined by seven subordinate themes (directing others, working with others,

Table 26

Manifest Effect Size and Frequency Distribution of the Meta-themes Associated With the Chief Petty Officer Academy

Theme	Meta-Theme	Frequency of occurrence (units)	Intensity effect sizes (% of total)
Directing Others	Lead. Abilities	10	17.8
Working with Others	Lead. Abilities	15	26.8
Developing Subordinates	Lead. Abilities	2	3.7
Responsibility	Lead. Abilities	0	0.0
Evaluations	Lead. Abilities	1	1.8
Work-life Sensitivity	Lead. Abilities	1	1.8
Setting an Example	Lead. Abilities	0	0.0
Prof./ Specialty Knowledge	Org. Responsibilities	0	0.0
Professional Development	Org. Responsibilities	1	1.8
Administrative Ability	Org. Responsibilities	0	0.0
Organization	Org. Responsibilities	0	0.0
Using Resources	Org. Responsibilities	5	8.8
Monitoring Work	Org. Responsibilities	0	0.0
Safety and Occ. Health	Org. Responsibilities	0	0.0
Stamina	Org. Responsibilities	4	7.1
Communicating	Org. Responsibilities	9	16.1
Military Bearing	Military Protocol	1	1.8
Customs and Courtesies	Military Protocol	3	5.3
Health and Well-being	Professionalism	1	1.8
Integrity	Professionalism	0	0.0
Loyalty	Professionalism	0	0.0
Respecting Others	Professionalism	1	1.8
Human Relations	Professionalism	1	1.8
Adaptability	Professionalism	1	1.8
Total		56	100.0

developing subordinates, responsibility, evaluations, work-life sensitivity, and setting the example) and their Coast Guard evaluation definitions which are found in Appendix F. Five themes were present in the qualitative interviews; responsibility and setting the example were the only subordinate themes absent (Table 26).

The syllabus for the CPOACAD is built around four sections of training performance objectives and 120 subordinate enabling objectives. One of the four sections of terminal performance objective categories for the Chief Petty Officer Academy is military leadership (Appendix B). This terminal performance objective category has the largest percentage, 40.8%, of enabling objectives and it was understandable that leadership abilities meta-theme would receive a large intensity effect size.

The leadership abilities meta-theme was also examined to establish the depth of personal endorsement (Table 27). The personal endorsement statistic represents the percentage of interviewees who discussed a particular theme or meta-theme during the course of the interview. One hundred percent endorsement signifies that all four interviewees discussed a particular theme or meta-theme. The leadership abilities meta-theme was endorsed by all those interviewed, or 100% endorsement. The endorsement level was also inspected on the leadership abilities subordinate theme level (Table 28). The only subordinate category endorsed by all those interviewed was Directing Others.

One Chief discussed his experience with directing others while at the Chief Petty Officer Academy:

> I was a team leader for our group. We had six or seven, maybe eight, in our team. [I spent a lot of the time] just managing [my group] so they didn't fall behind and end up in a high stress pressure cooker due to all these projects being due at the same time. Keeping the team together as a team was difficult.

Another interviewee echoed similar thoughts and praised the CPOACAD for opening his

eyes to the thought processes and theories behind good leadership.

Table 27

Participant Endorsement for the Four Meta-themes Associated With the Chief Petty Officer Academy

Meta-themes	Number of themes endorsed within each meta-theme	Frequency of occurrence (units)	Percentage endorsement ($n = 4$)
Leadership Abilities	5	29	100.0
Organizational Responsibilities	4	19	100.0
Military Protocol	2	4	50.0
Professionalism	4	4	50.0
Total	15	56	

The theme of working with others was discussed more than any other category

with a frequency of occurrences of 15 units. Although it was frequently discussed, it was

endorsed only by three of the four interviewees. This theme dovetailed nicely with the

previously mentioned theme of directing others. When the Chiefs were not directing

others, they were working with their classmates to solve problems and finish projects.

The Chiefs felt that the leadership course work helped them to better understand the

benefits of patience, to better comprehend generational attitudes and motivations, and to

maximize the synergy that teamwork creates. One Chief discussed how the CPOACAD

impacted his ability to understand the motivation of the people on his team.

Table 28

Participant Endorsement for the Evaluation Category Themes Associated With the Chief Petty Officer Academy

Theme	Meta-theme	Frequency of occurrence (units)	Percentage endorsement ($n = 4$)
Directing Others	Lead. Abilities	10	100.0
Working with Others	Lead. Abilities	15	75.0
Developing Subordinates	Lead. Abilities	2	25.0
Responsibility	Lead. Abilities	0	--
Evaluations	Lead. Abilities	1	25.0
Work-life Sensitivity	Lead. Abilities	1	25.0
Setting an Example	Lead. Abilities	0	--
Prof./ Specialty Knowledge	Org. Responsibilities	0	--
Professional Development	Org. Responsibilities	1	25.0
Administrative Ability	Org. Responsibilities	0	--
Organization	Org. Responsibilities	0	--
Using Resources	Org. Responsibilities	5	50.0
Monitoring Work	Org. Responsibilities	0	--
Safety and Occ. Health	Org. Responsibilities	0	--
Stamina	Org. Responsibilities	4	50.0
Communicating	Org. Responsibilities	9	100.0
Military Bearing	Military Protocol	1	25.0
Customs and Courtesies	Military Protocol	3	50.0
Health and Well-being	Professionalism	1	25.0
Integrity	Professionalism	0	--
Loyalty	Professionalism	0	--
Respecting Others	Professionalism	1	25.0
Human Relations	Professionalism	1	25.0
Adaptability	Professionalism	1	25.0

> I think probably [my] understanding [of] the motivation of people improved greatly. How [did the training] have an impact on me? I'm [now] able to understand better why people do what they do. And I may not agree with [them] but at least I can understand [them] better. I understand why they make the decisions they made.

The developing subordinates, evaluations, and work-life sensitivity subordinate themes were each discussed at a minimal level by the participants. Each category was endorsed by only one candidate (Table 28). The addition of these categories added to the total effect of the leadership abilities meta-theme, but each subordinate theme displayed little insight individually.

<div align="center">Organizational Responsibilities</div>

The organizational responsibilities meta-theme was the second most prominent category with a manifest effect size of 34.0% (Table 26). The Coast Guard describes the organizational responsibilities section as "a member's willingness to acquire knowledge and the ability to use knowledge, skill, and direction to accomplish work" (USCG, 2005b, p. 10.b.3). The meta-theme is defined by nine subordinate themes (professional/ specialty knowledge, administrative ability, organization, using resources, monitoring work, safety and occupational health, stamina and communicating) and the Coast Guard evaluation definitions, which are found in Appendix F. The organizational responsibilities category is the largest section in the Coast Guard enlisted evaluation form with 37.5% of all the categories. Of the nine subcategories, only four themes were discussed during the qualitative interviews. The subordinate categories present were professional development, using resources, stamina, and communicating (Table 26).

The organizational responsibilities meta-theme was also examined to establish the depth of personal endorsement (Table 27). The organizational responsibilities meta-

theme was endorsed by all those interviewed. The endorsement level was also evaluated

on the subordinate theme level (Table 28). Communicating was the only organizational

responsibilities subordinate category endorsed by all those interviewed.

The CPOACAD made a conscious effort to improve the communication skills of

the Chief Petty Officers during their month-long training. One of the four terminal

performance objective categories for the Chief Petty Officer Academy was

communication (Appendix B). One Chief discussed his communication skills

transformation since the Chief Petty Officer Academy:

> I communicate a lot better with folks. I don't wait until it's too late and the
> problems become worse. I try to address issues right off the bat. Before [the
> Chief Petty Officer Academy], I waited too long before I talked to people and
> addressed issues.

Two other interviewees discussed their writing improvement and their ability to produce

better quality reports and PowerPoint presentations. The CPOACAD collected Level 1

and 3 survey data from the participants and their supervisors following graduation

(Kirkpatrick, 1998). The supervisors' survey response, level 3 data, with the greatest

post-graduation improvement was the Chiefs' ability to properly write and edit

correspondence. The level 1 data showed the Chiefs also ranked their writing

development as one of the top five most improved areas (Appendix D).

The using resources theme was endorsed by two of the four interviewees. This

theme primarily involved networking. The Chief Petty Officer network is an unofficial

line of communication used to answer personnel and technically based questions.

Although not endorsed by all the Chiefs, the development of networking skills was

stressed as one of the best parts of the CPOACAD by the two interviewees who

mentioned the training. Additionally, using resources was the only subordinate category

to show a significant increase between the year before graduation and the year after graduation in the quantitative data (Appendix J). Networking is described in four enabling objectives in the system thinker/lifelong learner terminal performance objective (Appendix B).

The stamina theme had an intensity effect of 7.1% and was endorsed by two of the interviewees, or 50% endorsement. Unlike the previously mentioned subordinate themes, stamina was not mentioned entirely for its positive effects. One Chief discussed his Chief Petty Officer Academy experience:

> The stressors and the pace they kept you at taught you time management and made sure that you did your projects [on or ahead] of schedule so they wouldn't build up. It would cause a lot of stress in people. In the old days you would literally see people break out into fist fights because of the stress.

The building of stamina by the participants was a collateral benefit to the CPOACAD's difficult schedule and large amount of material the Chiefs were expected to learn.

The professional development theme was discussed at a minimal level by one participant but it provided little insight to the organizational responsibilities meta-theme. Administrative ability, organization, monitoring work and safety, and occupational health were not mentioned specifically by any of the Chiefs interviewed.

<center>Military Protocol</center>

The military protocol meta-theme was tied with professionalism for the least prominent category with a manifest effect size of 7.1% (Table 26). The Coast Guard describes the military protocol section as "a member's ability to bring credit to the Coast Guard through personal demeanor and professional actions" (USCG, 2005b, p. 10.b.3). The meta-theme is defined by two subordinate themes (military bearing, and customs and

courtesies) and the Coast Guard evaluation definitions which are found in Appendix F.

Both subcategories were present in the qualitative interviews (Table 25). The military

protocol category was the smallest section in the Coast Guard enlisted evaluation form

with just 8.3% of all the categories.

The military protocol meta-theme was endorsed by two of the four interviewees

(Table 27). The discussion on this theme primarily revolved around the graduation

ceremony. One Chief discussed his Chief Petty Officer Academy graduation experience:

> It was a really good ceremony. I was [emotionally] moved and it was very
> professional. I haven't been involved with a ceremony like that since I left the
> Chief Petty Officer Academy. I enjoyed it thoroughly.

The ceremony, as well as military protocol and appearance, are three enabling objectives

in the professionalism terminal performance objective (Appendix B). The lack of

discussion on this theme corresponds to the lack of significant change in the quantitative

section.

<div align="center">Professionalism</div>

The professionalism meta-theme was tied with military protocol for the least

prominent category with a manifest effect size of 7.1% (Table 26). The Coast Guard

describes the professionalism section as "those qualities the Coast Guard values in its

people" (USCG, 2005b, p. 10.b.3). The meta-theme is defined by six subordinate themes

(health and well-being, integrity, loyalty, respecting others, human relations, and

adaptability) and the Coast Guard evaluation definitions which are found in Appendix F.

Of the six subcategories, only four themes were present in the qualitative interviews. The

subordinate categories discussed were health and well-being, integrity, respecting others,

and human relations (Table 26). The professionalism section was the second smallest section in the enlisted evaluation form with just 25.0% of all the categories.

The professionalism meta-theme was endorsed by two of the four interviewees (Table 27). The endorsement percentage of each subordinate theme was minimal (Table 28). The CPOACAD curriculum had enabling objectives that addressed five of the six professionalism themes; loyalty was the only excluded theme (Appendix B). The lack of discussion on this theme corresponds to the lack of significant change in the quantitative section.

<div align="center">Other Themes</div>

The 24 themes in the Coast Guard enlisted evaluation form did not completely encompass all of the information from the interviewees. Unitizing and categorizing were continued on these outlying data until the sources were exhausted, the categories were saturated, regularities emerged, or over-extension occurred as described by Lincoln and Guba (1985). Four new themes immerged as a result of this additional assessment (Table 29). The themes were no low point/ good school, life changing, more tradition and should be earlier in career.

No Low Point/Good School Theme

One of the strongest themes expressed by all the interviewees was that there were no low points associated with the program and that it was a good school. It was apparent that everyone enjoyed the training and the total experience during the month-long program. One Chief expressed his feeling about the program. "The Chief Petty Officer Academy was probably one of the best [advanced education] schools I've ever attended.

One of the best schools in the Coast Guard I've ever attended, in fact." A similar feeling

was genuinely expressed by all the Chiefs interviewed.

Table 29

Manifest Effect Size and Frequency Distribution for the Outlying Themes Associated with the Chief Petty Officer Academy

Theme	Frequency of occurrence (units)	Intensity effect sizes (% of total)	Percentage Endorsement
No Low Point/ Good School	6	30	100
Life Changing	5	25	25
More Traditions	3	15	25
Should Be Earlier	3	15	50
Other	3	15	75
Total	20	100	

Life Changing Theme

The second non-enlisted evaluation theme mentioned during the interviews was

"life changing." This theme was based on the thought that the experience and knowledge

the Chiefs gained during their month at the CPOACAD actually altered their life

direction in some fashion. Life changing was a theme that was specifically addressed by

only one of the four interviewees. The CPOACAD curriculum had a sincere effect on

this individual. He explained his experience:

> [The Chief Petty Officer Academy had] an attitude of making the most of
> everything you do. Not really directed at the Coast Guard it was more directed at
> changing a lifestyle to make the best of all situations that you are in. It wasn't
> focused on the Coast Guard; it was focused on life in general. It was pretty
> profound.

Although the life changing theme was specifically expressed by only one graduate, a feeling of personal change was expressed by all the Chiefs interviewed. The personal change was normally expressed as a subordinate component to other enlisted evaluation categories such as working with others or communication.

More Traditions Theme

The "more traditions" theme was another category that was not addressed specifically by the enlisted evaluation form. This theme comes from a popular belief that Chief Petty Officers are not acting like the strong authoritative figures they were 10 to 20 years ago. The interviewee wanted to see that aspect of the Chief incorporated into the CPOACAD curriculum. This theme was addressed by only one Chief, but he was passionate about this topic. During the interview he explained:

> A better connection with the traditions of what a Chief must uphold [needs to be taught at the Chief Petty Officer Academy]. They didn't really have time for that. They didn't have time to say this is how you build a Chief's mess and they didn't have time to say the Chief [needs to] have this strength and that strength and the Chief needs to be able to do this.

The intensity behind the Chief's interview made this more traditions theme part of the outlying group. He discussed it multiple times, increasing the frequency of occurrence.

Should Be Earlier Theme

The last theme that appeared outside the enlisted evaluation form relates to when an enlisted person should attend the Chief Petty Officer Academy. Two of the four Chiefs interviewed explained that this material should be taught earlier, specifically it should be taught to the first class community. The two Chiefs who expressed this opinion felt that most Chiefs already know this material and it would have been more

beneficial to learn this information earlier in their career. While this topic showed minimal manifest effect and was endorsed only by 50% of the Chiefs, it did have one unusual characteristic. The qualitative study was separated into two groups, one group showed significant improvement after graduation while the other displayed little growth. The "should be earlier" theme was the only qualitative theme in the entire study that was supported only by the group with significant improvement. It is difficult to know if this was statistical randomness or if there was something special behind this theme. Additionally, there were no themes that were solely supported by the two Chiefs in the group who showed no significant improvement.

Summary of Results

The purpose of this chapter was to analyze the data and provide a discussion on the results. The results of this study indicate that leadership training positively impacts performance as measured through enlisted evaluations. However, the positive results were not noted in all areas of the study. The overall performance including the leadership protocol and organizational responsibilities sections showed positive impacts, while the professionalism and the military protocol sections showed no statistically significant change. The qualitative data validated the quantitative results showing similar outcomes. Additionally, the qualitative data exposed four themes not addressed by the enlisted performance evaluation. These themes were the training had no low point and that it was a good school, the CPOACAD was life changing, the CPOACAD needs to put more emphasis on teaching traditions, and that the CPOACAD training should be introduced earlier in an enlisted career. The next chapter summarizes the results of this study and presents conclusions and recommendations.

CHAPTER V

SUMMARY, FINDINGS, DISCUSSION, CONCLUSIONS AND

RECOMMENDATIONS

Over the past decade, there has been a large increase in the quantity of training

programs that focus on leadership and management. Many organizations are concerned

about the leadership inadequacies of their employees, and as a result, are committing to

education and training that deepens the skills, perspectives, and competencies of their

leaders (Conger & Benjamin, 1999).

While many organizations are developing leadership training programs, there is

little research evidence confirming the relationship between leadership development and

individual or organizational performance (Tubbs & Schult, 2005). This growth in

leadership training will be short-lived if there is little or no correlation between the

money spent on training and performance improvement for the corporation.

The benefit of leadership development programs is already being discussed within

the United States Coast Guard. In the Coast Guard, all training programs compete

against one another for limited funds, and leadership programs are at a disadvantage

because there is not a direct correlation between the money spent and return on

investment. In an effort to adequately contend for future funding, the Coast Guard must

see real benefits from its leadership programs.

The purpose of this mixed-method study was to establish if there was a relationship between leadership training and performance in the Coast Guard. The training being evaluated was the Chief Petty Officer Academy, a 33-day resident course designed to give leadership development training to a newly promoted Chief Petty Officer. The measurement of performance was obtained quantitatively through annual performance evaluations and qualitatively through interviews. This study provides documentation of the performance benefits of leadership training in the Coast Guard.

Once the Coast Guard has enough substantiative data documenting the performance benefits of leadership training, there will be less of a threat of these programs being impulsively cancelled during periods of budget shortfall (Martineau, 2004). Alternatively, if leadership training does not prove effective in improving employee or organizational performance, the Coast Guard can also make an informed decision to invest in more effective programs.

Methodology Overview

The design of the study was mixed-method. The study was performed sequentially, with the quantitative section occurring before the qualitative section. The quantitative portion evaluated enlisted performance evaluations and then qualitative interviews were used to examine the results in more detail.

The 1999 graduating class, consisting of 399 graduates, was the population used in this study. The effective sample for this study was made up of 40 Chiefs who met all the required conditions of the study. The study participants were all Chief Petty Officer Academy (CPOACAD) graduates from January 1, 1999, to December 31, 1999. The year 1999 was chosen because that year the CPOACAD changed to its current

curriculum, because it allowed for the comparison of three post-graduations, and because the training became mandatory that year, yielding a larger sample group.

The quantitative research addressed the relationship between an individual's graduation from the CPOACAD and his or her performance in the United States Coast Guard. The survey instrument used was the Chief Petty Officer annual enlisted performance evaluation. The time frame of the study spanned from 1 year before a Chief graduated from the CPOACAD (pretest) to 3 years after their graduation (posttest), for a total of four performance evaluations. A one-way repeated measures analysis of variance (ANOVA) was used to establish if there were any significantly different performance evaluation means over the 4-year time period. Paired sample *t*-tests were conducted, if necessary, to establish which year the performance evaluation means were different. Additionally, effect sizes were found to determine the effect of the intervention.

In the second phase of the mixed-method study, qualitative interviews were used to probe into the quantitative results. Four Chiefs made up the purposive sample with unlike subjects for the qualitative section (Miles & Huberman, 1994). Two Chiefs were selected because they showed the largest increase in their performance evaluation post-graduation and two Chiefs were selected who showed limited performance increase. These interviews were conducted via phone conversation, audiotape recorded, and transcribed. Within each interview, respondents were asked a variety of open-ended questions regarding change in their performance since graduation. They were asked to provide a detailed description of how the CPOACAD affected their leadership knowledge, style, and interactions with subordinates. The transcripts were then coded and sorted into the 24 categories in the Coast Guard's enlisted evaluation form, and I

looked for similarities and differences in knowledge and experience among the four

Chiefs. The qualitative portion of the study was used to amplify the description of the

quantitative data.

Findings

The findings of the study are reported based on the six research questions. The

summary and comparisons of the first five results are based on quantitative findings. The

sixth research question was based on qualitative findings.

Research Question 1

The null hypothesis for research question 1, "There would not be a relationship

between CPOACAD graduation and an individual's performance (overall performance),"

was rejected. There was a significant relationship between CPOACAD graduation and

total performance as documented by yearly performance evaluations.

This research shows that Chief Petty Officers increased in overall performance

when they were given leadership development training. The overall increase in

performance was 2.8%, when comparing the pre-graduation performance evaluations

totals to an average of the three post-CPOACAD graduation totals. The increase in

performance was more significant the first year after graduation than the subsequent 2

years. The performance effects peaked on the 2^{nd} year after graduation with an overall

gain of 3.3%. The effect size was 0.18, which was less than what Collins (2002) found

($M = 0.38$) in her meta-study on the effects of leadership development training on

performance.

Research Question 2

The null hypothesis for research question 2, "There would not be a relationship between CPOACAD graduation and an individual's performance (leadership abilities section)," was rejected. There was a significant relationship between CPOACAD graduation and leadership performance as documented by yearly performance evaluations.

This research shows that Chief Petty Officers increased in leadership performance when they were given leadership development training. The overall increase in leadership performance was 4.1%, when comparing the pre-graduation leadership performance evaluation totals to an average of the three post-CPOACAD graduation totals. The increase in performance was more significant the 1st year after graduation than the subsequent 2 years. The leadership performance effects peaked on the 2nd year after graduation with an overall gain of 4.9%. The effect size was 0.26, which was slightly less than what Collins (2002) found ($M = 0.38$) in her meta-study on the effects of leadership development training on performance.

Research Question 3

The null hypothesis for research question 3, "There would not be a relationship between CPOACAD graduation and an individual's performance (professionalism section)," was not rejected. There was not a significant relationship between CPOACAD graduation and professionalism section performance as documented by yearly performance evaluations. The effect size was 0.07, which was much less than what Collins (2002) found ($M = 0.38$) in her meta-study on the effects of leadership development training on performance.

Research Question 4

The null hypothesis for research question 4, "There would not be a relationship between CPOACAD graduation and an individual's performance (organizational responsibilities section)," was rejected. There was a significant relationship between CPOACAD graduation and organizational responsibilities section performance as documented by yearly performance evaluations.

This research shows that Chief Petty Officers increased in organizational responsibilities section performance when they were given leadership development training. The overall increase in organizational responsibilities section performance was 2.9%, when comparing the pre-graduation leadership performance evaluations totals to an average of the three post-CPOACAD graduation totals. The increase in performance was more significant the 1^{st} year after graduation than the subsequent 2 years. The organizational responsibilities section performance effects peaked on the 2^{nd} year after graduation with an overall gain of 3.7%. Based on paired t-tests, the leadership training did not significantly affect organizational responsibilities until the 2 to 3 years after graduation time period. The effect size was 0.18, which was less than what Collins (2002) found ($M = 0.38$) in her meta-study on the effects of leadership development training on performance.

Research Question 5

The null hypothesis for research question 5, "There would not be a relationship between CPOACAD graduation and an individual's performance (military protocol section)," was not rejected. There was not a significant relationship between CPOACAD

graduation and military protocol section performance as documented by yearly performance evaluations. The effect size was 0.26, which was slightly less than what Collins (2002) found ($M = 0.38$) in her meta-study on the effects of leadership development training on performance.

Research Question 6

The qualitative research question was "How do graduates of the CPOACAD view their change in performance?" The purposive sample was separated into two categories for the qualitative section: Chiefs with no significant performance variation, as measured through their enlisted evaluation totals, and Chiefs with significant positive performance variation, as measured through their enlisted evaluation totals. The two groups were interviewed in an effort to broaden the qualitative scope of the study and identify differences in responses. Both groups had almost identical views of the month-long leadership development program. They primarily discussed the CPOACAD's effect on their leadership skills and organizational responsibilities and had little to discuss regarding professionalism and military protocol. Additionally, the qualitative data exposed four themes not addressed by the enlisted performance evaluation. These themes were the training had no low point and that it was a good school, the CPOACAD was life changing, the CPOACAD needs to put more emphasis on teaching traditions, and that the CPOACAD training should be introduced earlier in an enlisted career. Both groups of Chiefs both gave a minor credit to the CPOACAD for any change that would be discernible in their performance evaluations.

Discussion

The ultimate goal of the Chief Petty Officer Academy is "to provide critical leadership skill sets need by all [Chief Petty Officers]" (USCG, 2003, p. 4). Collins (2002) would classify the goal of this program as educational. The program was not specifically developed to improve individual or organizational performance. Collins's research found that only 30% of leadership development programs had organizational performance as their desired outcome. While the curriculum of the Chief Petty Officer Academy was not specifically directed towards improving an individual's performance, it appears that it has that effect. The following four areas will be discussed in this segment: CPOACAD effect on overall performance, CPOACAD effect on four sections of overall performance, CPOACAD effect on leadership, and effect sizes.

CPOACAD Effect of Overall Performance

The overall performance for CPOACAD graduates was significantly higher than their pre-CPOACAD totals. Although understanding that the post-graduation totals were significantly higher is important, that information does not provide a complete picture of the results of the CPOACAD. To better explain the results, it was imperative to thoroughly examine the paired sample t-tests for overall performance. These t-tests provide three important details, which are graphically displayed in Figure 10.

1. Post 1 overall performance totals were significantly higher than pre-graduation totals. This information implies that the program had an immediate effect on the graduating Chiefs.
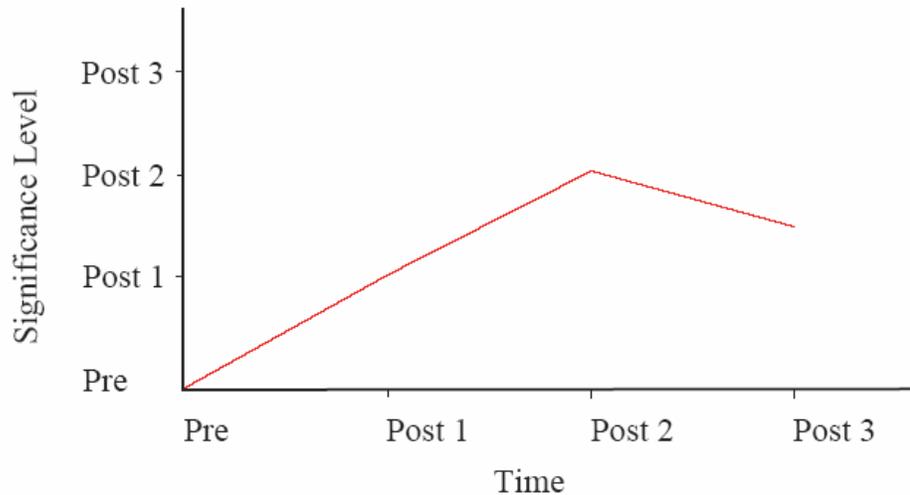
Figure 10. Graphical depiction of significance levels for overall performance.

    2.   Post 2 overall performance totals were significantly higher than Post 1 graduation totals. This information implies that the program's effect lasted 2 years, continually affecting the graduating Chiefs in a positive manner.

    3. Post 3 overall performance totals were not significantly different from either the Post 1 or Post 2 totals. This information implies that the program's lasting effects peaked on the 2nd year after graduation. Three years after graduation the overall performance totals were now statistically identical to 1st-year levels. The discussion gets somewhat confusing because 3rd-year levels were also statistically identical to 2nd-year levels, which were statistically higher than 1st-year levels. To alleviate this confusion, in Figure 10, Post 3 was graphically displayed somewhere between Post 1 and Post 2 levels.

    Summarizing the three details, the CPOACAD had an increasing positive effect the first 2 years after graduation but this effect started to decline on the 3rd year. Baldwin and Ford (1988) explain that knowledge and skills used in many training programs commonly erode over time. The amount of time at the newly trained skills are used on

the job is called maintenance. Figure 11 describes many of the maintenance curves

related to training. The CPOACAD would be classified as a combination of type E and

type A curves.

There are many possible explanations for the increase in performance and then

slow decline, but the qualitative interviews lead to the following assumption. After

graduation, the students are very motivated and they are looking forward to using all the
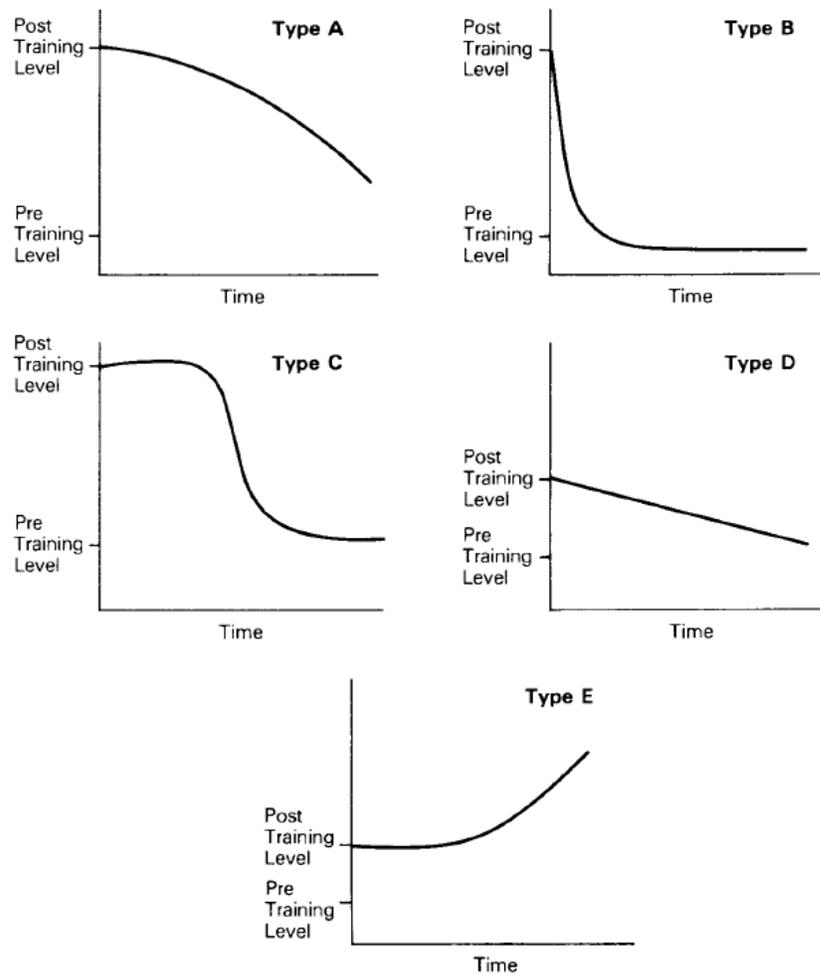
Figure 11. Types of transfer maintenance curves. From "Transfer of Training: A Review
of Direction and Future Research," by T. T. Baldwin and K. J. Ford, 1988, *Personnel
Psychology, 41*, p. 97. Copyright 1988 by Blackwell Publishing. Reprinted with
permission.

new skills they just learned. Some of the skills that they learn, such as leadership skills, are immediately applied, while other skills, such as conflict resolution and writing awards, can be used only when the opportunity presented itself. Additionally, some of the skills acquired, such as building a quality Chief's mess and establishing a beneficial organizational network, even if immediately applied could take a couple of years before the results from their efforts became visible. When the immediate and delayed effects are combined together, they create 2 years of significant improvement after the CPOACAD. The 1st-year improvement was the result of the immediate applied skills and the 2nd-year was the combined result of delayed impact of some immediately with those skills that could not be immediately applied.

The 3rd year after graduation showed a decrease in organizational effectiveness. As mentioned earlier, Baldwin and Ford (1988) discuss that it is common for training programs to lose effectiveness over time. They go on to add that the best way to slow this decay is to use follow-up training. This slows the reduction and keeps the material fresh in the trainee's mind. Without the use of follow-up training, the data in this study raise the question of whether over time the overall performance would eventually return to its pre-graduation starting levels. While this was outside the scope of this study, some insight can be drawn from the qualitative interviews. While the quantitative data were collected only from 1998 to 2002, the qualitative interviews were collected in 2006, 7 years after graduation. The vivid memory the interviewed Chiefs had about their experience at the CPOACAD combined with the similarity between the qualitative and quantitative results leads to the likelihood that a large portion of the training remained

with the participants and probably continues to be reflected in higher performance evaluations.

CPOACAD Effect on the Four Sections of Overall Performance

Overall performance was composed of four subordinate sections: leadership abilities, professionalism, organizational responsibilities, and military protocol. While overall performance significantly increased after CPOACAD graduation, not all the sections showed the same effect. Professionalism and military protocol did not show a significant increase after graduation, while leadership abilities and organizational responsibilities showed significant improvement. Each of the areas needed to be examined in more detail to determine the leadership training's complete effect on performance.

Professionalism

Professionalism showed the smallest amount of change of all the sections. The pre-graduation mean was almost identical to all three post-graduations means. Additionally, the qualitative interviews showed very little discussion on topics related to professionalism. To understand the lack of change in this section, it is important to review the definition and categories that comprise the section. Professionalism was defined as "those qualities that the Coast Guard values in its people." It was comprised of six subordinate categories (health and well-being, integrity, loyalty, respecting others, human relations, and adaptability).

The Kirkpatrick four-level model (1998) was used to evaluate the effects of CPOACAD on overall performance and the individual sections, including

professionalism. The fundamentals of this model need to be reviewed to understand why there was no change in the graduates' professionalism. Level 1 measured the participant's reaction to the program. Level 2 measured the student's learning, normally obtained through pre- and post-training tests. The third level measured the learning transfer, where the usage of the new training in the operational environment is measured. The fourth, and final level, measured the results of the training, which was the purpose of study. Each of the levels in this model builds upon the next. The CPOACAD collected levels 1 and 3 data, and level 2 data were absent from the study. The leadership abilities and organizational responsibilities sections displayed significant increases in this study (level 4 information) and also showed an increase with their levels 1 and 3 studies. The professionalism section did not show a significant increase in the results section. To decipher why this happened, it was important to review the professionalism levels 1 and 3 data. Unfortunately, there is little to no information collected on integrity, loyalty, respecting others, human relations, and adaptability. This made it impossible to determine if the students enjoyed the material on these topics or used the knowledge they gained in the work environment.

The curriculum of the CPOACAD was generally focused on leadership and organizational management techniques, with very little instruction directed towards the professionalism categories. The CPOACAD directors possibly felt the professionalism impact of the program was so minor they chose not to collect any post-graduation information in this area. With this lack of attention, it was reasonable to expect that there would be minimal change in the professionalism section.

Military Protocol

Military protocol was the other section that did not have a significant post-graduation increase. Military protocol was defined as "a member's ability to bring credit to the Coast Guard through personal demeanor and professional behavior." It was the smallest section comprised of only two subordinate categories (military bearing, and customs and courtesies). Unlike the professional section, military protocol actually showed quite a jump in post-graduation means. The effect size (0.26) for this section was so much that it tied with the leadership abilities section for the largest change in the study. This could be considered odd, based on the fact that the leadership abilities section results displayed significant results ($p < 0.01$) based on the repeated measure analysis of variance (ANOVA) while the military protocol section did not have significant results ($p > 0.05$). The rational for one null hypothesis being rejected while the other was not revolves around the quantity of data in the sample. The leadership abilities section of the performance evaluation consists of seven categories, while the military protocol section consists only of two categories. This difference allowed for the comparison of 277 data points in the leadership abilities section and 77 points in the military protocol section. The reason that the military protocol section was not rejected was based on the fact that there were not enough data points to statistically prove that the means in the ANOVA were different enough from one another. As the sample sizes increase, it becomes easier to prove that means are different from one another. This difference in sample sizes is the reason that the effect sizes can be the same, yet only one of the two null hypotheses was rejected.

If there were a larger sample in the study it is possible that the military protocol section would show a significant increase in performance. There are qualitative segments in the study that hinted towards the military protocol having a large impact on the students than the statistical analysis indicated. Two graduates interviewed discussed the positive impact that planning the graduation ceremony, an event overflowing with military customs, had on them both personally and professionally. An additional comment was made that military protocol was rarely the focus of the discussion, but its essence surrounded the whole course. Baldwin and Ford (1988) explained that follow-up training can be an essential component to training effectiveness. The military protocol section of CPOACAD was actually a follow-up event for both boot camp and "A" school, two training programs that heavily stress military customs and courtesies.

Organizational Responsibilities

Organizational responsibilities was one of two sections that showed significant post-graduation improvement. The qualitative data, gathered through individual interviews, supported the quantitative results. Organizational responsibilities was defined as "a member's willingness to acquire knowledge and the ability to use knowledge, skill, and direction to accomplish work." It was the largest section comprised of nine subordinate categories (professional/specialty knowledge, administrative ability, organization, using resources, monitoring work, safety and occupational health, stamina, and communicating).

Although understanding that the post-graduation organizational responsibilities totals were significantly higher is important, that information does not provide a complete

picture of the results of this section. To better explain the results, it was imperative to thoroughly examine the paired sample *t*-tests for organizational responsibilities. The 1st year after graduation, the section did not show a significant increase. It took 2 years for the graduates to show a significant increase in performance. This delayed effect could be explained by many reasons such as the composition of the training program less focused on support activities such as organizational responsibilities or the lack of immediate ability to use some of the training they received.

Another possible reason for the hindrance was a slight lack of congruence between the training and operational environment forcing the Chiefs to learn more by on-the-job experience. CPOACAD training related to administrative abilities, communications, and monitoring work possibly needed more experimentation by the Chiefs in an effort to find a system that worked in their operational environment. Much of the CPOACAD training was based on best practices and principles that could immediately be applied to the workplace, yet this was not the case for all the training. Some of the training was more theoretical and abstract, which meant that the Chiefs had to personally apply the knowledge they gained to their work environment. The 3rd year after graduation the organizational responsibilities showed a decrease, moving more toward pre-graduation level. The *t*-tests showed that the 3rd year after graduation was still significantly higher than pre-graduation, but it is apparent that there is a decrease. It is possible that the follow-up reinforcement that focused more on organizational responsibilities would be beneficial to the CPOACAD graduates.

Leadership Abilities

Leadership abilities was the second section that showed significant post-graduation improvement. The qualitative data showed high frequency of occurrence and percentage endorsement by the interviewees, supporting the quantitative results. To understand the change in this section, it is again important to review the definition and categories that comprise the section. Leadership abilities was defined as "a member's ability to direct, guide, develop, influence and support others performing work." It was comprised of six subordinate categories (directing others, working with others, developing subordinates, responsibility, evaluations, work-life sensitivity, and setting the example). This section showed an immediate and lasting change in performance for the CPOACAD graduates along with one of the highest effect sizes. As a leadership development program it was not surprising to see positive effects in this category, but it is an important part of the evaluation process to determine whether the program is producing its intended results (Torres & Preskill, 2001). A following discussion segment will provide more detail on the CPOACAD's effect on leadership, expanding the view outside just the leadership abilities section.

CPOACAD Effect on Leadership

This discussion segment not only examines the effects of the leadership abilities section, but more importantly the growth of leadership characteristics in the CPOACAD graduates. While it apparent that the CPOACAD had a positive effect on overall performance, does this mean that the graduates are better leaders? To answer that question, the learning theories and leadership dimension connection must briefly be reviewed.

The CPOACAD's learning orientation was primarily focused on the combined interactions of behaviorist, cognitive, and humanistic learning (Merriam et al., 2006). These areas were merged together with the Kolb model (Kolb & Fry, 1975) to create a transformational learning environment for the adult students. This transformational learning environment was designed to create transformational leaders through the use of lectures, group projects, behavior role modeling, and case discussions in a mixed formal and informal training setting.

To measure the effect of the program, the Coast Guard Enlisted Evaluation form was used. Twenty of the 24 components of this Coast Guard form mirrored Stogdill's leadership dimensions (Bass, 1990). It can be assumed that any increase noted in the enlisted evaluation totals, or overall performance, would equate to an increase in these mirrored leadership dimensions.

The overall performance for CPOACAD graduates was significantly higher than their pre-CPOACAD totals. This leads to the belief that the graduates of the CPOACAD are better leaders than they were prior to the training. While it was outside the scope of this study to determine whether or not the graduates increased their transformational leadership characteristics, some insight can again be gained from the qualitative interviews. One of the graduates stated,

> I think probably [my] understanding [of] the motivation of people improved greatly. How it's impacted me, I'm able to understand better why people do what they do. And I may not agree with it but at least I can understand it better. I understand why they make the decisions they made.

This statement refers to two of the four fundamental factors of transformational leadership–inspirational leadership and individual consideration. While it is impossible

to determine if the graduates became transformational leaders, it is apparent that some of the graduates began using some of the components of transformational leadership.

Effect Sizes

The primary method for evaluating the impact of leadership training on performance has been effect size (Burke & Day, 1986; Collins, 2002; Zhang, 1999). Collins's study on effect sizes found organizational performance effect sizes ranged from 0.02 to 0.79, yielding a mean of 0.39. He also found individual performance effect sizes ranged from 0.04 to 2.10, yielding a mean of 0.38. Cohen's (1977) study suggests 0.2 as a minimal effect, 0.5 as a moderate effect, and 0.8 as a meaningful effect. The results of this study ranged from 0.07 (professionalism section) up to 0.26 (tie between leadership and military protocol section). The effect size results for this study suggest that the impact of leadership training on performance as measured through performance evaluations was in the weakest effect category. This effect range was typical for leadership training as seen from the Collin's study. This means that graduates can expect very little increase in performance evaluation totals as a result of the training. Literature showed that studies with the greatest effect size increases were primarily found in self-assessment studies (Collins, 2002).

An additional factor to the low effect size was the use of performance appraisals as the instrumentation. The pre-graduation evaluation overall performance total was a mean of 5.19 and the average of the three post-CPOACAD graduation totals was 5.34. This increase was above and beyond the evaluation inflation creep which was removed from all post-graduation means. This equated to an effect size of 0.18. To reach a meaningful effect size of 0.80, the mean would have to jump to an astounding 5.84 on a

7-point scale. While possible, such dramatic increases have not been common in the Coast Guard enlisted evaluation system and would require a detailed description of the improvement, which discourages the likelihood of a large performance increase. The low effect sizes, while consistent with the literature, were affected by the Chief Petty Officer's evaluation pre-graduation totals already being at a high level, making it difficult to see exceptional positive changes.

Another possible reason for the low effect sizes could be based on one of the delimitations of the study. The data for all CPOACAD graduates who were promoted during the period of the study were not included. It can be assumed that the promoted Chief Petty Officers were performing at a higher level than the non-promoted members and the inclusion of their data might have increased the effect size.

The last qualitative interview question asked, "What effect do you think that the CPOACAD had on your performance as measured through your enlisted evaluations?" The collective answer was that there would be minimal, if any effect, on their performance evaluations. This presumption was correct.

Conclusions

The research in this study focused on the performance evaluations of the 1999 graduates of the Coast Guard Chief Petty Officer Academy. The results of this study can be generalized to include all graduates from 1999 to the present. The overall results of this research were summarized in the following concluding statements.

1. Chief Petty Officers increased in overall performance on completion of leadership development training conducted by the Chief Petty Officer Academy. Overall

performance is defined as the sum total of all the categories and sections in the enlisted performance evaluation.

2.   Chief Petty Officers increased in leadership skills on completion of leadership development training conducted by the Chief Petty Officer Academy. Leadership skills are measured by the leadership abilities section of the enlisted performance evaluation. Leadership is defined as a measure of a member's ability to direct, guide, develop, influence, and support others' performing work.

3.   Chief Petty Officers increased in organizational responsibility skills when they completed leadership development training conducted by the Chief Petty Officer Academy. These skills are measured by the organizational responsibility section of the enlisted performance evaluation. Organizational responsibility is defined as a measure of a member's willingness to acquire knowledge and the ability to use knowledge, skill, and direction to accomplish work.

4.   Chief Petty Officers did not increase in military protocol or professionalism when they completed leadership development training conducted by the Chief Petty Officer Academy. Military protocol is defined as a measure of a member's ability to bring credit to the Coast Guard through personal demeanor and professional actions. Professionalism is defined as a measure of those qualities the Coast Guard values in its people.

5.   When comparing Chief Petty Officers with significant performance increases to those with little to no increase, they had similar perceptions on their CPOACAD experience. The one difference was their view on when the information provided by the CPOACAD should be presented to enlisted personnel. The Chiefs with significant

performance increase stated that the information would be more beneficial if presented to the First Class Petty Officer community.

6. Chief Petty Officer Academy was enjoyable and a worthwhile experience for the graduating Chiefs.

Recommendations

Based on this study, the following recommendations are offered. The recommendations are separated into two sections: recommendations for practice and recommendations for further research.

Recommendations for Practice

1. The Leadership Development Center should consider the addition of a First Class Petty Officer Academy. The Coast Guard currently has three major leadership programs for enlisted personnel. Recruit training (Boot Camp) is the introductory training all new enlisted personnel receive. The next leadership training is a 5-day leadership and management school (LAMS). This training is focused towards E-5 and attendance is a requirement to become an E-6. The Coast Guard suggests that enlisted personnel should re-attend LAMS every 3 years, but there is no requirement to do so. Consistent follow-up programs are the key to maintaining post-training skill levels and the addition of a First Class Petty Officer Academy or an advanced E-6 version of LAMS could increase leadership learning retention. The interviews of both Chief Petty Officers with significant performance improvement independently stated that the CPOACAD material would be better served if introduced earlier, possibility in the First Class community.

2.   The Chief Petty Officer Academy should have follow-up instruction 2 years after graduation. There is a drop off in performance after the 2[nd] year and this follow-up training could help maintain post-training skill levels.

3.   The Chief Petty Officer Academy should collect Kirkpatrick's (1998) level 2 data, evaluating the knowledge immediately before and after the training. Kirkpatrick's training model is based on four levels (reaction, learning, transfer, and results). With the completion of this study there is information for levels 1, 3 and 4. To understand the complete development of the training's participants, it is important to also collect level 2 data.

4.   The Chief Petty Officer Academy should use this study's findings to evaluate the return on investment for the program (Phillips, 2003). Phillips believes that there should be an addition to Kirkpatrick's four-level model; the fifth level should be return on investment. This would be a cost analysis examining how much the training program costs in relationship to the monetary benefits of the results. While it is difficult to generate financial figures from performance evaluations, it is possible and a worthwhile analysis for the Coast Guard.

5.   The Chief Petty Officer Academy instruction should include the goal of increasing individual and organizational performance. The current purpose is "to assist newly advanced Chief Petty Officers transition into the Chief's community by developing the leadership, communication, and administrative skills required to become and effective Chief Petty Officer." Adding this additional goal will give more depth to the program and will most likely positively impact the Coast Guard.

Recommendations for Further Research

1. Further research is required to learn more about the lasting effects of leadership development training. Specifically, why does the Chief Petty Officer Academy effect of performance peak 2 years after graduation?

2. Further research is required to determine if a larger sample size would create a significant increase in military protocol.

3. Further research is required to determine Kirkpatrick's (1998) levels 1, 2, and 3 information for the professionalism section.

Conclusion

This study explored the question "In what ways does the Coast Guard Chief Petty Officer Academy affect its graduates?" using the Coast Guard's enlisted performance evaluation as an instrument. Using a mixed-method design, a one group pre-posttest study was conducted to determine the effects of the Coast Guard leadership development program on its graduates' performance. The 4-year study was evaluated prior to the intervention and the three consecutive annual evaluations following graduation. Using a repeated measures analysis of variance statistical analysis and case study interviews, the study shows that the Coast Guard leadership development program resulted in significant increases in overall performance as recorded by enlisted performance evaluations.

APPENDIX A

ENLISTED CAREER DEVELOPMENT PROGRAM

U.S. Department of Transportation
United States Coast Guard

Memorandum

Subject:	ENLISTED CAREER DEVELOPMENT PROGRAM	Date:	8/26/98 1000
From:	Master Chief Petty Officer of the Coast Guard	Reply to Attn. of:	G-CMCPO MCPOCG Patton 7-2397
To:	Commandant		

Via: (1) Director, Reserve and Training
     (2) Assistant Commandant for Human Resources
     (3) Chief of Staff
     (4) Vice Commandant

1. I am pleased to forward the enclosed report and recommendations for your review and conceptual approval. These items represent the culmination of nearly two years of research and analyses that have yielded a comprehensive plan for an integrated career development program for the enlisted workforce. This Enlisted Career Development Program (ECDP) ties together the results of the Nonrate Workforce Structure Study (NWSS), the Chief Petty Officer Needs Assessment (CPONA) and the Petty Officer Development Initiative (PODI). The ECDP also owes a debt of gratitude to precursory efforts to define the leadership and career needs of our people—Leadership Workgroups I and II in particular. These studies exemplify our commitment to *prepare* our enlisted workforce to *perform* well.

2. As the enclosed report indicates, these analyses were not originally conceived as sequential building blocks for enlisted career development. But in the course of conducting these studies, the teams involved recognized that their work offered such an opportunity and they seized the initiative to build a framework for a cradle-to-grave career development program for the largest segment of our workforce—the men and women of the enlisted corps. As the senior enlisted member of this organization, I am proud to sponsor what I believe will be one of the most sweeping, influential and effective leadership and career development initiatives in the history of our organization.

3. I would particularly note the successful application of Human Performance Technology (HPT) principles and tools in the development of this program. I cannot imagine that any other methodology would have better served both the teams and the Coast Guard in providing a structured approach to capture performance mandates, expectations, assessments and systemic influences—all of which are essential to prescribe a complete and complementary set of interventions that will better prepare the enlisted workforce from accession to advancement to chief petty officer.

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Subj: ENLISTED CAREER DEVELOPMENT PROGRAM

4. This program proposal is the hard work of a multitude of individuals throughout the Coast Guard who have devoted themselves to improving our organization by meeting the needs of its enlisted people. The stamps of all these members—representing diverse paygrades, ratings, operational, support and engineering communities, and demographics—are left within these recommendations.

5. There is a principal core group, however, that merits special recognition as those who truly brought it all together and made the difference between success and failure. They well deserve the gratitude they will undoubtedly receive from our leadership and from future generations of enlisted members at every level. I would like to formally acknowledge the following key players:

      LCDR Chris Hall—COMDT (G-WTT)—Primary Performance Consultant
      CDR Mark Rutherford—COMDT (G-WTT)
      LCDR Don Triner—CGC ELM (formerly assigned to LDC)
      LCDR Don Robison—TRACEN Cape May
      MCPO Saundra O'Toole—CPO Academy (East) (formerly assigned to G-WTL)
      YNCS Alex Keenan—COMDT (G-WTL)

6. Enclosure (1) to this memo provides a summary of the ECDP and its component studies and an additional enclosure to the summary provides a listing of recommendations associated with the ECDP. As our late and great chief petty officer Alex Haley said, we should "find the good and praise it"; these studies and recommendations, I believe, illustrate that we're truly meeting the needs of our enlisted workforce. Strong in the conviction of your credo that *Preparation Equals Performance*," I am convinced that the ECDP will provide lasting benefits to the organization and to our enlisted members who comprise 80% of our Coast Guard population.

7. I respectfully request your careful consideration and approval of this proposal. Immediately upon approval, I will take steps working in concerted efforts with COMDT (G-WT), to establish a dedicated Headquarters Implementation Team for all ECDP implementation efforts. This team will be charged with complete oversight, coordination, and integration of all ECDP recommendations approved for implementation. The Performance Consulting Division (G-WTT-1), having served as overall planner, coordinator, and leader of the ECDP analyses, will develop a charter for the team, complete with resource requirements needed to implement approved recommendations. I strongly recommend that this team be placed under the immediate

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Subj: ENLISTED CAREER DEVELOPMENT PROGRAM

7. (Cont'd) direction of the Vice Commandant due to the organization-wide impact and activities related to this implementation project.

VINCENT W. PATTON, III

Encl: (1) ECDP Executive Summary and Recommendations

Final Report:
United States Coast Guard
Enlisted Career Development Program
Preparing the Enlisted Workforce for the 21st Century

Executive Summary

Introduction:

During the past year and a half, three analysis teams conducted the most sweeping set of studies of the enlisted workforce in Coast Guard history. Taken together, these analyses comprise an integrated and comprehensive performance support plan for the entire Coast Guard enlisted workforce from the time of initial accession to advancement to chief petty officer. The three component studies listed below are collectively entitled the Enlisted Career Development (ECD) Program:

- The Nonrate Workforce Structure Study (NWSS)
  - The Petty Officer Development Initiative (PODI)
    - The Chief Petty Officer Needs Assessment (CPONA)

These ECD studies were inherently customer-focused by virtue of the study teams' composition; team members were selected because they best reflected the immediate beneficiaries of this project. These handpicked men and women came from operational units around the Coast Guard. Moreover, at every step specific data were gathered from actual customers at large. The study teams identified the Coast Guard's organizational goals and missions and corresponding unit needs in order to target the desired performance of the enlisted Workforce to accomplish those goals and missions.

In addition to the three studies above, a fourth effort was launched to communicate and validate this collection of analyses. This effort was known as the Enlisted Leadership Initiatives Training and Professional Development Focus Group (ELITE) project. ELITE entailed an unparalleled series of visits to field commands, both large and small, throughout the Coast Guard to communicate the studies' purposes, findings, and recommendations to the Service at large and to conduct focus groups to gather feedback. As a result, nearly 10,000 Coast Guard men and women have already been personally briefed on the ECD projects and have provided virtually unanimous support for their results.

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No large organizational initiatives of this kind in recent memory have been so thoroughly vetted at the grassroots level. This executive summary provides an overview of the background, methodology, and findings associated with these studies.

Background:

The three studies were not conceived at the outset as a comprehensive ECD effort to define enlisted performance from initial entry to chief. Rather, the NWSS and the CPONA began as separate attempts to better develop discrete portions of the enlisted workforce and the PODI was a natural byproduct of these two analyses. As the NWSS analyzed the enlisted accession process up to A-school and the CPONA defined performance expectations of chiefs, needs associated with the intermediate rates virtually spilled out of these two studies. These petty officer needs were captured in the PODI by a team composed of members who were participants in both the NWSS and the CPONA. Put simply, while the NWSS defined one end of the spectrum (E-1 – E-4), the CPONA defined the other end (E-6 – E-7), and the PODI defined the bridge between them (E-4 – E-6).

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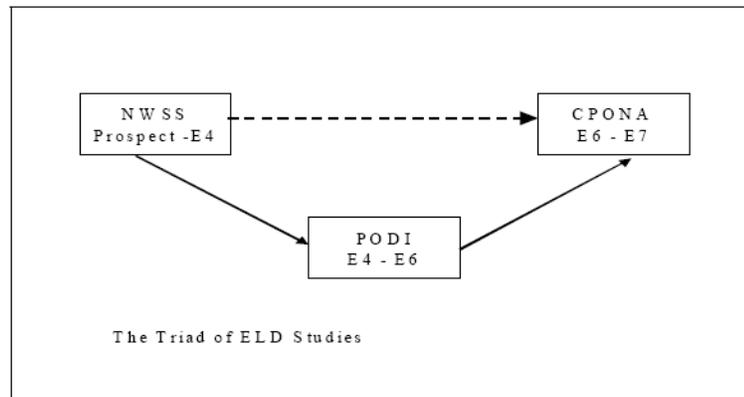
The NWSS was the first of the ECD studies to be chartered; it began as a successor to a Quality Action Team that had been wrestling with the issue of ensuring that nonrates were engaged in "meaningful" (i.e., career developing and challenging) work. To figure this out, it was clear to the QAT that there first must be a solid understanding of the Service's expectations for the role and job of a nonrate.

What is it that nonrates ought to be doing in order to help accomplish their units' missions? What qualities do they need to have in order to reach

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their full potential? It was clear that the answers to these questions would then provide the perfect opportunity to examine precursory issues: given these expectations for nonrates, how do we recruit the kind of people we need to become nonrates and how should we then indoctrinate and assimilate them into the Service?

Thus was conceived the Nonrate Workforce Structure Study which was to provide a comprehensive analysis of the entire Coast Guard enlisted accession system that encompasses what has been called "the three-team commitment" of Recruiting, Recruit Training, and On-The-Job Performance of Nonrates (at their first units). To meld these three elements into a unified accession system, the NWSS examined and linked all of the processes and products associated with these elements from initial attraction of potential Coast Guard applicants to their development as fully functioning nonrates in the field.

The Enlisted Accession System:
The 3 Major Components

Recruiting · Recruit Training · Nonrate On-the-Job Performance

Phase II: NWSS Recruiter Needs Assessment · Company Commander Needs Assessment · Phase I: NWSS Nonrate Needs Assessment
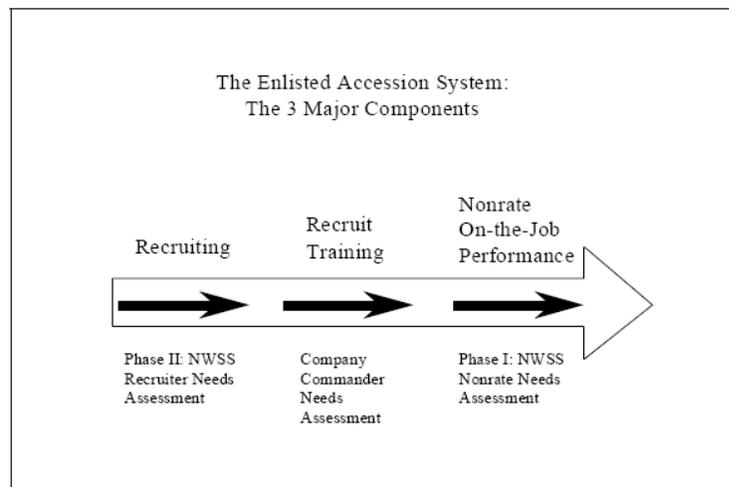
NWSS found what many had already suspected, that the accession system was not completely aligned in providing its final product—entry-level enlisted members ready to perform their duties in the field and prepared to reach their full potential in the Coast Guard. The solutions proposed by NWSS will enable all three components of the enlisted accession system to work together for this common purpose.

As NWSS sought to understand the extent to which nonrate work is career enhancing, larger questions arose such as what do we mean by "career"? What does this career look like? One must know what the job entails at the far end of the enlisted career pipeline if one is to determine how to

march in that direction from the career outset as a nonrate. As it happened, another enlisted workforce analysis appeared to have the answers.

That analysis was the Chief Petty Officer Needs Assessment, which focused on the other end of the enlisted spectrum at the point where enlisted technicians at the E-6 level become front-line "shop managers" at the E-7 level. Like the NWSS, this study began with the end state in mind by asking, what is it that the Coast Guard expects of its CPO corps and what professional preparation does a selected E-6 need to fulfill these expectations? The CPONA was chartered partly in response to concerns that emanated from Leadership Workgroups 1 & 2 and the 1996 Training Infrastructure Study. These groups identified changes needed to better support the Chiefs Corps, a key element of which involves the CPO Academy. While the Academy's curriculum met the needs of E-8's and E-9's, not all E-7's, let alone *prospective* E-7's, were guaranteed an opportunity to benefit from the CPO Academy experience. The CPONA sought to better align the Academy's curriculum with real-world senior enlisted performance expectations at the E-7 level.

CPONA prescribed a revitalized CPO Academy as a universal E6 – E7 transition experience.
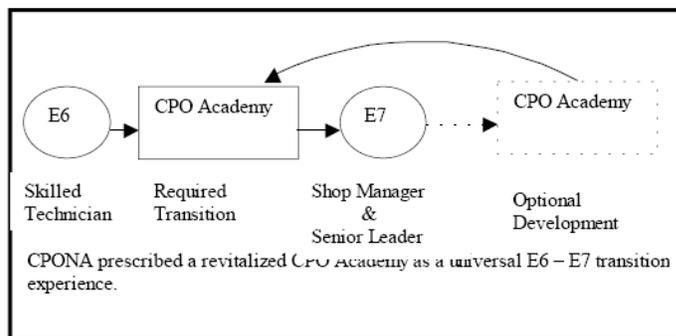
By analyzing the performance requirements and expectations of newly advanced CPOs, the CPONA team was able to contrast this with actual knowledge, skills, attitudes and abilities of prospective E-7's (selected E-6's) to measure the extent of the "jump" from petty officer to chief.

This enabled restructuring of the CPO Academy curriculum to bridge the gap between E-6 and E-7—paygrades with dramatically different performance expectations. In 1994, Leadership Workgroup 1 first articulated the vision of the CPO Academy as gateway into the Chiefs Corps; CPONA would turn that vision into reality.

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Finally, as NWSS and CPONA took shape, it became apparent that these analyses provided two anchors to an entire enlisted developmental plan from prospective enlistee to CPO. In other words, once the roles and performance of both nonrates and chiefs are defined, then the paygrades in between should incorporate successive levels of development from nonrate to chief. All that was lacking was a sequence of developmental building blocks from one to the other.

Optimal CPO Attributes

E7 | Knowledge | Skills | Attitudes | Ability |

Optimal Nonrate Attributes

E3 | K | S | A | A |
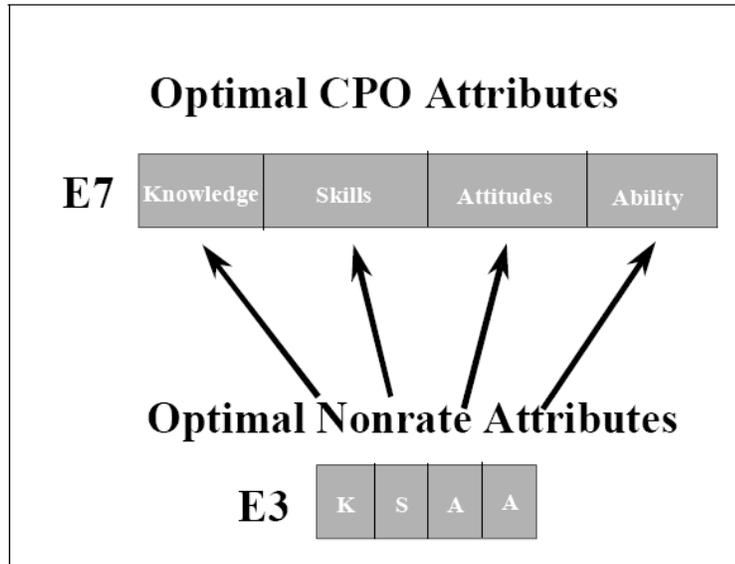
Defining this sequence became the mission of the Petty Officer Development Initiative, which looked at the NWSS and CPONA as two endpoints that could be connected by strands of professional development for the Petty Officer Corps through E-7.

Career Long Development

E7	Knowledge	Skills	Attitudes	Ability
E6	K	S	A	A
E5	K	S	A	A
E4	K	S	A	A
E3	K	S	A	A
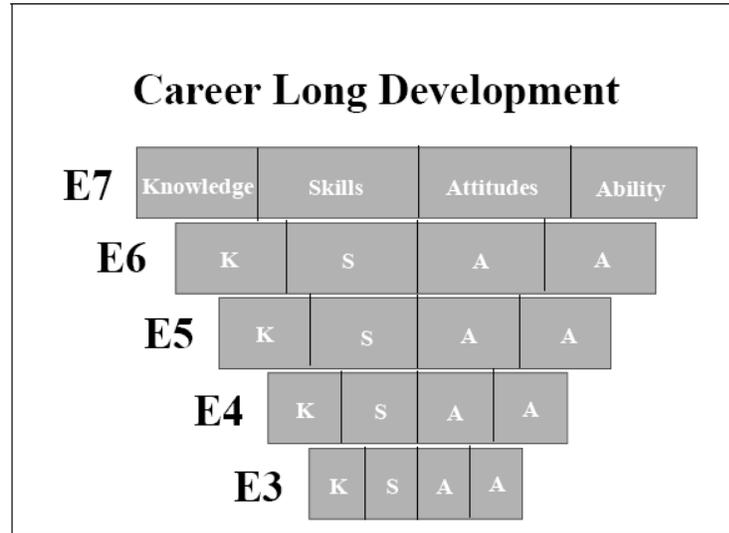
The focus group visits comprised the final stage of the studies. This was in direct response to then Chief of Staff VADM Loy's call to communicate and validate the results of the ECD analyses in the field before implementation. The Coast Guard's 1997 Workforce Cultural Audit revealed widespread perceptions that communications from the Service's leadership to the troops was lacking and the ELITE focus groups took proactive measures to ensure that these studies affecting the entire enlisted Workforce were widely publicized before any of their recommendations were enacted. This proved to be an extraordinary opportunity to tap into the collective wisdom of thousands of Coast Guard members resulting in much more finely honed recommendations than would have otherwise been possible.

As a footnote to this background, future plans call for a final analysis in the ECD series to address E-8 and E-9 performance expectations and preparation. Once completed, this Senior Enlisted Needs Assessment (SENA) will complete the ECD series of plans making it truly a cradle-to-grave development strategy for the enlisted workforce.

The Enlisted Career Development Program (ECDP)
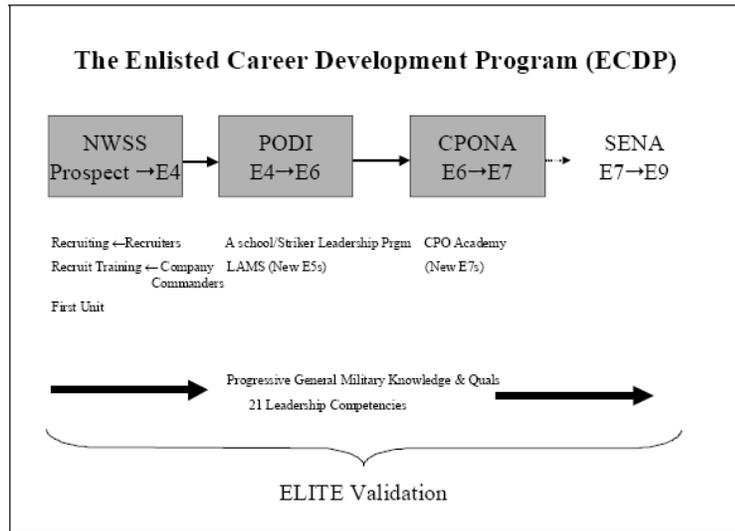
As a result of the ECD proposals, previously independent professional growth and training efforts will be harnessed with a variety of new initiatives to provide a coordinated and innovative career development program.

Transformation

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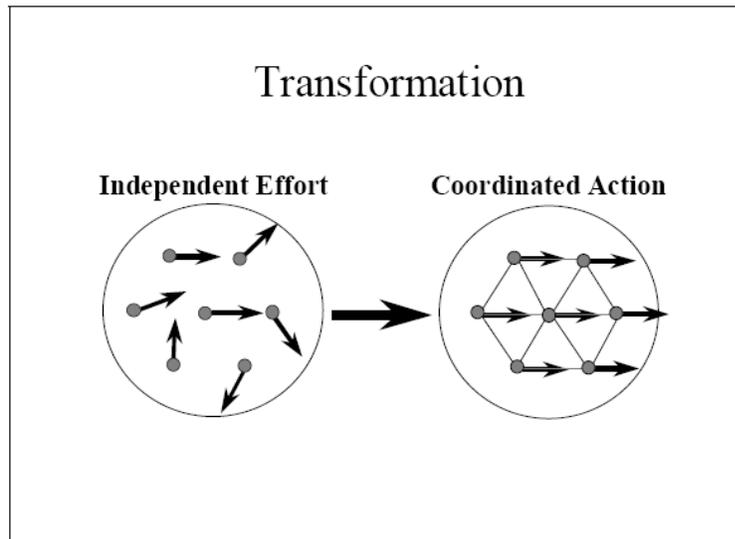
Methodology:

The ECD analyses were conducted by specially selected teams using a Human Performance Technology (HPT) approach. HPT is a set of methods and procedures, as well as a strategy for solving problems and for realizing opportunities related to the performance of people. It can be applied to individuals, small groups, and large organizations. HPT begins by looking at an organization's outcomes, which are based upon its mission, strategy and goals, and then it derives from these the desired workforce performance that will achieve the outcomes. Next, the actual state of workforce performance is captured. By contrasting the actual and desired states, gaps between the two are identified and analyses are conducted to determine root causes of the gaps. These root causes may stem from any of three basic groups of origin: knowledge/skills/attitudes/ abilities, motivation/incentives, and the environment/resources. Within these three groups there is a universe of factors that influence human behavior in the production of desired outputs resulting in higher outcomes.

Performance Factors
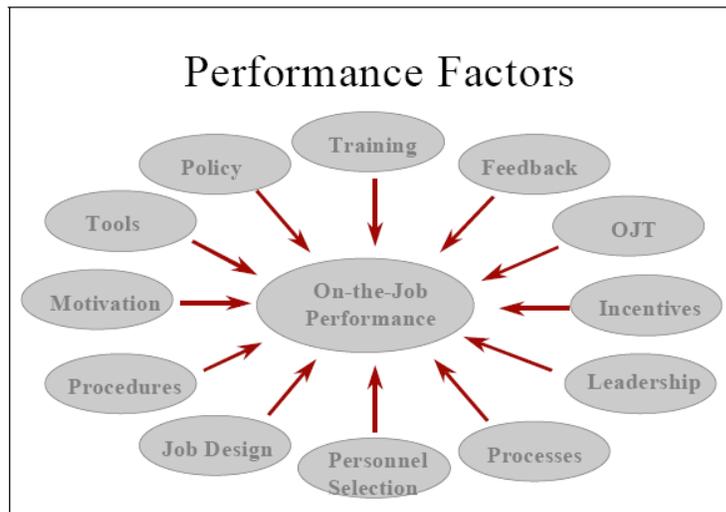
Only when the root cause of a performance gap is properly identified can an appropriate system of interventions be designed and developed to fill the gap.

Subsequent evaluation of the results will monitor the alignment between actual and desired workforce performance to ensure that the original gap remains closed and to detect any newly appearing gaps.

Therefore, rather than serving as a mere snapshot in time, an HPT analysis properly done provides a basis for ongoing assessment of workforce alignment with organizational needs.
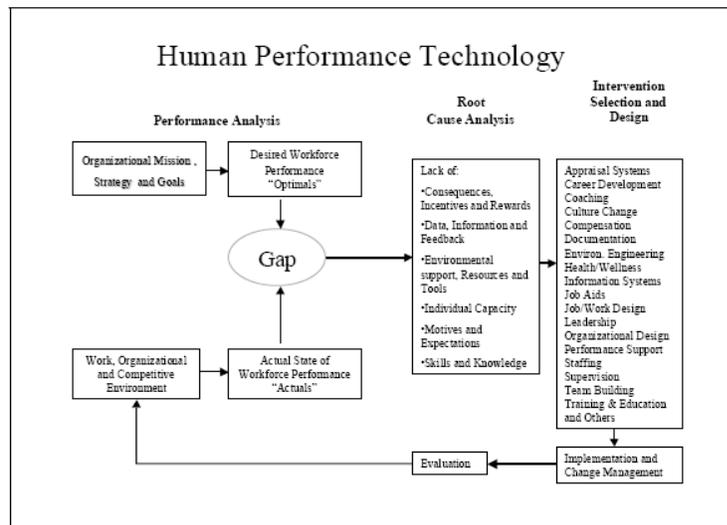
Both the NWSS and the CPONA defined these attributes and shortfalls for nonrates and CPOs respectively. For the CPONA, this included:

- Optimal Attributes for CPOs (desired state) - Determined the knowledge, skills, attitudes and abilities required for the 21st century CPO. This list became the goal of all career-long development efforts and provided the specific components on which to measure the success of the program.

- Actual Attributes for PO1's (current state) - Assessed how the current group of first class petty officers about to be promoted compare to our "optimal chief."

- Gaps (between the two) - Assessed the current gap we must bridge to develop optimal CPOs.

And for the NWSS, this included:

- Optimal Attributes for Nonrates (desired state) - Determined the knowledge, skills, attitudes and abilities required for the 21st century nonrate. This list became the end product of the enlisted accession system and provided the specific components on which to measure the success of the system.

- Actual Attributes for Nonrates (current state) - Assessed how the current population of nonrates compares to the "optimal nonrate."

- Gaps (between the two) - Assessed the current gap we must bridge to develop optimal nonrates.

The NWSS also produced similar lists for both Company Commanders and Recruiters. Subsequent root cause analyses produced numerous recommendations for interventions.

Discussion

NWSS

The Nonrate Study team began with the end in mind by ascertaining precisely what performance is required of a nonrate in the field to enable Coast Guard units to accomplish their missions. Using this data, the team determined those characteristics that recruiters needed to target in order to hire individuals with greatest likelihood of success as members of the enlisted workforce. Then, Recruit Training was redesigned to bridge the gap between the civilian men and women who enlist and the high-

performing nonrates they need to become to do the work of the Coast Guard. As part of this Recruit Training alignment, a thorough needs assessment was conducted for the job of Company Commander. The impact of this alignment and reengineering is immense. As a consequence, a critical portion of the Coast Guard workforce—entry-level enlisted members—will be properly developed to fulfill its intended vital role. This will further affect morale and retention issues with countless benefits that accrue therefrom. The NWSS is empowering to the entry-level enlisted workforce since it identifies and provides for the development of specific knowledge, skills, attitudes, and abilities required of nonrates. This means that the junior enlisted men and women who actually deliver the services provided by the Coast Guard will be truly *Semper Paratus* to protect, defend, and serve the nation's maritime interests.

The NWSS project is without precedent; this represents the first-ever attempt to bring the accession system in alignment with definite, measurable nonrate performance expectations based on organizational and field (customer) needs. The associated data collection and analyses involved nationwide interviewing, surveying, researching, and benchmarking. The analysis team developed systemic interventions and solutions that cross traditional "stovepipe" organizational boundaries so that each accession system component supports the common goal of producing high-performing Coast Guard nonrates. In addition to meeting the mandates of the Government Performance and Results Act (GPRA), the team's data-driven HPT process ensures that its results will address the real barriers to nonrate performance and not merely treat the symptoms. The benefits of the team's revolutionary work ultimately impact the entire Coast Guard enlisted workforce since it affects the way all Coast Guard enlisted members are hired and initially prepared for duty.

In summary, NWSS better defined what the Coast Guard needs from its entry-level enlisted workforce in order to 1) accomplish the Service's missions, and 2) become the future enlisted leaders of the Coast Guard. This definition of performance requirements provided the basis to determine how the Coast Guard ought to recruit young men and women, how these recruits then need to be trained and motivated, and then how the recruit's first units need to continue their development and reinforce what they have learned. This will result in a Coast Guard whose workforce is performance oriented from Day 1—an organization that knows what it needs from its people in order to serve the public and provides what its people need to get the job done. By starting all the way upstream at accession, this professional development, mission focus, and accountability for performance will be imbued throughout the organization. This, in turn, will enable the processes and infrastructures associated with enlisted recruiting and recruit training to minimize attrition, inefficiencies, and misalignment that consume scarce resources.

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The NWSS results are ready for immediate implementation. Already, objectives for three new curricula—for recruiters, recruits, and Recruit Training company commanders—have been designed and await development. If approved, a special implementation team will commence NWSS Phase 3 to tackle the myriad issues involved in executing the study's recommendations.

CPONA

The Chief Petty Officer Needs Assessment (CPONA) conducted a comprehensive review of Chief Petty Officer (CPO) performance expectations and requirements. This needs assessment is vital to the service as it targets the most critical transition point in an enlisted member's career, the point at which the first class petty officer must evolve from a technical expert into a leader and manager worthy of the chief's anchors.

During the course of this project, the CPONA team engaged in an exhaustive data collection and analysis effort, gathering information from hundreds of sources. These data sources included extensive benchmarking of each military service; 12 industry-leading civilian companies; a comprehensive search of relevant literature; 50 interviews with the senior leadership of the Coast Guard; and a myriad of interviews, surveys, and focus groups involving field personnel.

The CPONA team analyzed the varied and complex demands placed on CPOs, synthesized the vast body of data and developed a model of an "optimal" CPO—one who is equipped to meet all those demands. This model is a list of the 115 attributes (knowledge, skills, attitudes, and abilities) that every CPO must possess regardless of rating or assignment.

The team then compared the first class petty officers (PO1's) currently on the list for advancement to E-7 against the model of the optimal CPO by gathering an immense amount of data on the attributes PO1's currently possess. A 360-degree, multiple-rater perspective was captured by surveying supervisors, peers and subordinates of every PO1 on the list. By analyzing the gaps between the actual attributes possessed by those on the list against the optimal model, the team made recommendations on how best to develop the knowledge, skills, attitudes, and abilities before new chiefs arrive at the CPO Academy. Consequently, the CPO Academy curriculum could be refocused and tailored to better serve the Coast Guard in the next millennium.

The CPONA team went well beyond the impressive achievement of revising the CPO Academy curriculum. Its results provide for a linked

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development strand combining resident training, on-the-job training, and experience with a comprehensive evaluation and measurement system to gauge the effectiveness of each intervention.

In keeping with the tenets of a performance-based organization, these results add no additional burdens to the workforce and require minimal additional expenses while meshing seamlessly with Coast Guard culture.

PODI

The Petty Officer Development Initiative (PODI), authorized as an adjunct analysis, involved a blending of the NWSS with the CPONA. Using the same rigor and methods as the other studies, the PODI was conducted by a core group of analysts who were members of both of the other studies who recognized that the elements of a PODI plan virtually spilled out of the other studies. Once E-1-to-E-3 and E-7 performance expectations had been defined, it became fairly easy to identify E-4-to-E-6 requirements. In focusing on these intermediate paygrades, the PODI team sought to answer the question, "How do we develop essential knowledge, skills, attitudes, and abilities that cannot be imparted in an existing training experience (such as Recruit Training or CPO Academy) or at any single transition point?" What this team ultimately accomplished, aided by NWSS and CPONA findings, is truly remarkable: the framework for a sweeping program that will revolutionize the Coast Guard's entire enlisted development process, from the time recruits enter the Service to the time first class petty officers earn their anchors as chiefs.

Like the NWSS and the CPONA, the PODI team's collection of valid and reliable data included more than the combined amount captured by Leadership Workgroups 1 and 2 and the Workforce Cultural Audit. The team produced a sequential professional development program combining resident and non-resident training, on-the-job training, and experience—all completely consistent with the Service's Leadership Development Plan (COMDTINST 5351). The team's results provide mid-grade petty officers a means to learn, practice, develop, and nurture the attributes that will make them successful leaders helping to realize the Commandant's goal to "build superior competency among our people…and instill superior leadership and management skills at all levels."

The PODI contributes mightily to a career-long investment in our enlisted workforce. The results, developed as a complete and systemic solution set, will help to make the Coast Guard the employer of choice for young people by improving morale and retention for these "forgotten" paygrades.

ELITE

The focus group tour was a unique and powerful demonstration of the degree to which the organization values its most important asset—its people. The mission of the focus group team was to engage in open, face-to-face dialogue with group units concerning the ECD Program. The team was well received throughout its travels and the concept of a comprehensive enlisted career development plan was heartily endorsed by the members who participated in the presentation and focus groups.

The team used a PowerPoint presentation to convey its information to the group units so that all units received the same message. To appreciate the enormous undertaking involved in the ECD needs assessments, the field had to have a full understanding of who comprised the teams and how they employed Human Performance Technology to reach their conclusions. The field representatives' confidence in the studies was greatly bolstered by the fact that the ECD teams consisted of field members like themselves of diverse backgrounds who they could instantly relate to. Once the team won their audience's confidence, it proceeded to give an overview of HPT followed by an outline of the studies and their recommendations. The recommendations generated a great deal of excitement and provoked much discussion that produced some excellent suggestions. This kind of input from the group enhanced the final products of the ECD efforts.

Following the PowerPoint briefings at each unit visited, the team conducted focus groups composed of 12 to 20 participants of various ranks and ratings. Seeking field input in this way established a sense of shared ownership as the members realized that they were part of the process. The focus groups not only validated the data of the studies but also enriched many of their recommendations.

Epilogue:

The ECD studies are complete, the field has been briefed, and now it is time for action. In the focus groups, the team always asked one final question of the participants: "Do you see any barriers in making these changes happen?"

The number one response was not some content related concern regarding the studies; instead, it was general apprehension that the ECD recommendations would not be implemented.

Expressing this pervasive doubt, one field member remarked, "We (the CG) do a great job taking care of the American Public, but a poor job taking care of ourselves." And another attendee remarked, "Don't kid us that you're really going to use any of this information."

The implementation of these studies is an opportunity for the organization to dispel such cynicism and stoke an underlying confidence and pride among its people. We must keep the faith with the young SA who after she attended a focus group presentation stated, "(This program) really gives me hope about my future in the Coast Guard." The focus group visits revealed a widely held belief that the Coast Guard is indeed the "World's Premier Maritime Service" with an understanding that it's people, not cutters, boats or aircraft, that make this so. Our members want to be challenged and are eager to do the work of the Coast Guard if we'll just give them the wherewithal. Enacting the ECD program is a sound business decision and will have a lasting positive impact in terms of enlisted workforce development, performance, morale and retention. If we truly believe that "Preparation Equals Performance," then we must believe that the ECD Program, by better preparing the "Guardians of the Sea," will ultimately benefit all Americans who depend on our Service. A complete set of recommendations associated with the ECD studies is provided in enclosure (1). All supporting data will be digitally stored for use by those involved in implementation efforts.

Signed:

CAPT J. B. Willis (G-WTT)	CAPT B. Abiles (G-WTL)	MCPOCG V. W. Patton III (G-CMCPO)
Guidance Team Leader	Guidance Team Leader	Guidance Team Co-Leader
NWSS	CPONA and PODI	CPONA and PODI

Encl: (1) ECD Recommendations for Implementation

Final Report:
United States Coast Guard
Enlisted Career Development Program
Preparing the Enlisted Workforce for the 21st Century

Recommendations for Implementation

This is a summary of recommendations resulting from the research and analysis of the following studies and subsequent service-wide focus groups:

- Nonrate Workforce Structure Study (NWSS)
    - Company Commander Needs Assessment (CCNA)
        - Petty Officer Development Initiative (PODI)
            - Chief Petty Officer Needs Assessment (CPONA)

The summary is divided into 7 sections that parallel career progression sequence from time of initial entry to advancement to senior enlisted levels: 1) Recruiting, 2) Recruit Training, 3) Company Commanders, 4) First-Unit Performance, 5) Petty Officers, 6) Chief Petty Officers, and 7) General Recommendations. Each of the sections is further subdivided into functional areas containing individual, data-based recommendations.

Section 1—Recruiting

These recommendations resulted from the NWSS, Phase 2. Many of these recommendations are predicated on NWSS research and analysis that identified core competencies—knowledge, skills, attitudes and abilities (KSAA's)—that are needed to be a successful recruiter. Others stem from systemic or environmental obstacles in achieving desired recruiting outcomes. These core competencies, combined with an analysis of the current selection process and job incentives, provided the basis for a coordinated set of recommendations to assist the Service in attracting and selecting the best-qualified people for the job of recruiter. The findings and recommendations are organized into the following subsections: Recruiter Selection and Development, Recruiting Organization and Structure, Recruiting Support/Tools, Marketing Programs and Incentives, and Removing Barriers.

1.a. Recruiter Selection and Development

 1.a.1. New Resident-Based Recruiter Training Curriculum: Identification of recruiter core competencies revealed gaps in the current process of training and qualifying recruiters. With the assistance of the Recruiter School Chief and several experienced recruiters, the NWSS team developed new resident-training terminal performance

1.a.1. (cont'd) objectives (TPO's) to target recruiter needs. Two significant areas of improvement involve sales/marketing and setting realistic expectations. The value of sales/marketing is obvious, and setting realistic expectations is an essential factor in creating motivation. Having an accurate picture of CG life is a crucial part of recruit/nonrate motivation; this must be coupled with an expectation to succeed and a belief in the value thereof. Thus, recruiters must set accurate and relevant expectations early for prospects. This will require a shift in recruiter training from the present emphasis on a recruit's experience in Recruit Training (first 8wks) to a focus on his/her career (4+yrs). The Recruiter C-School curriculum should be redesigned to incorporate all new resident-based TPO's.

1.a.2. New PQS for Recruiters: Recruiters should be provided with on-the-job PQS based on non-resident TPO's derived from recruiter core competencies. The KSAA's that are not covered by the resident-based training course will be covered in this new PQS. Recruiter PQS will be provided to the Recruiter after attending resident based training and should be completed within six months of arrival at the recruiting office.

1.a.3. Remove Assignment Barriers: Motivation and incentive barriers must be minimized to attract the best candidates to this profoundly influential job. In addition to the following recommendations, the Enlisted Advancement Study Team (EAST) should investigate ways to eliminate harmful effects on advancement from this out-of-specialty assignment:

    1.a.3.a) Assignment preference for follow-on assignment,

    1.a.3.b) Academic credit for Recruiter C-School,

    1.a.3.c) SDAP at least on a par with other Services,

    1.a.3.d) Allowances for uniform/dry cleaning/haircuts

1.a.4. Screening of Recruiter Candidates: Aptitude interviews (such as those developed by the Gallup Organization) should be used in screening candidates for the job. Attitudinal/psychological instruments should be used to filter out candidates unsuited to sales and marketing work.

1.b. Recruiting Organization and Structure

1.b.1. Relocate Recruiting Offices: Many recruiting offices are not located where they can achieve best results. Recruiting offices should be relocated to areas based on such factors as high population density, minority population density, propensity for military enlistment, and proximity to CG units in order to improve recruiting efficiency and results. Similarly, office staffing should be based on these same variables. Relocation will also provide for more appropriate quota assignment to recruiting offices by tying quota allocations to objective recruiter productivity standards.

1.b.2. CG Recruiting Center (CGRC) Organization: Sectors leaders, supervisors, and support personnel should be located in their geographic sectors instead of CGRC. Lack of direct observation, travel limitations, and time zone differences hinder

1.b.2. (cont'd) effective leadership under the current structure. leaders, supervisors, and support personnel could be collocated with CG District offices, activities, groups, etc., to provide additional benefits such as easy access to PERSRU's, clinics, and exchanges.

1.b.3. Organizational Control: The current recruiter measure of success is based on numbers of applicants shipped to Recruit Training. This conflicts with TRACEN Cape May's accountability for numbers of Recruit Training graduates. The current organizational structure (e.g., separate Flag Officers for Recruiting and Recruit Training) exacerbates this problem. Consistent with practices of other Services, both CGRC and Cape May should be accountable to the same Flag Officer for the same results (numbers graduating Recruit Training) to place the emphasis on the common goal of producing nonrates ready for service in the Coast Guard.

1.c. Recruiting Support/Tools

1.c.1. Recruiting Database: Information concerning recruiter and marketing effectiveness is lacking. A database should be developed to track recruiter productivity, return on investment for marketing, etc. to provide for appropriate improvements based upon objective data.

1.c.2. Leverage Technology to increase recruiter effectiveness. Recruiters are currently tied to ineffective "storefront" operations rather than being fully enabled to go where the prospects are. Moreover, in view of the importance of setting realistic expectations (discussed in 1.a.1. above), recruiters need ready access to relevant information whenever and wherever needed. Recommendations include:

1.c.2.a) Maximize recruiter mobility by creating a "virtual office" through use of cell phones, laptops/modem, etc.

1.c.2.b) Develop a Recruiter Electronic Support System (EPSS) to simplify and streamline the recruiting process while meeting the needs of both the recruiter and the prospect. The EPSS would contain required forms that could be processed on the spot or back at the office enabling recruiters to capture prospect information quickly and professionally. The EPSS would also provide information, pictures and video that can be tailored to the prospect's wants and needs. It would further provide a virtual roadmap for areas of special interest to the prospect (i.e., benefits, jobs, career opportunities, etc.). For example, if a prospect is attracted to the CG due to an interest in flying, the EPSS could lead the prospect through a self-paced tour highlighting aviation job/rating information, required ASVAB scores, career path, CG air frames, geographic assignment information, etc. The technology and software needed to produce this EPSS is readily available and the use of an electronic "job picture" is an area of much emphasis and innovation among other Services.

Enclosure (1)

1.d. <u>Marketing Programs and Incentives</u>

1.d.1. <u>Align Marketing Programs</u>: Local marketing practices are not aligned with national marketing efforts. All efforts should support one vision; therefore, a standard format and approval process for local marketing plans is required. Marketing products should be geared toward local target populations.

1.d.2. <u>Guaranteed A-School Program</u> should be significantly expanded to allow for earliest possible rating selection/assignment. Currently, CG is alone among Armed Forces in requiring a nonrate tour before career path decision/A-school. NWSS analysis did not find that nonrates benefit from delayed rating affiliation. In addition, evidence suggests that it is a corporate myth that nonrates make pure, unbiased career-choice decisions by being exposed to various ratings during the first tour. To the contrary, the rating choice is unduly influenced by the supervisor, a desire to minimize sea duty, etc. Moreover, current practice discounts aptitudes, long-term career decision-making, and inhibits matching entry-level people to forecasted ratings needs. Associated possibilities are:

 1.d.2.a) <u>General guaranteed A-school recruitment</u> with 6-year contracts.
 1.d.2.b) <u>Establishment of a smaller "unaffiliated" nonrate pool</u>, similar to that of the Navy, composed of those who will serve in what we consider our traditional nonrate first-tour assignments under a 4-year contract. This pool is to fill required nonrate assignments and is for those who do not make a career choice, are unable to qualify for a desired rating, or are otherwise unable to get a slot in a rating of choice.
 1.d.2.c) <u>Establishing a core-and-strand approach in Recruit Training</u>, similar to that of the Navy, that branches into separate tracks for A-school-bound recruits and those that are "unaffiliated" after a common indoctrination period.

1.d.3. <u>Involve All of Team Coast Guard in Recruiting</u>: Institute an "Every-Coastie-is-a-Recruiter" program. Emphasize that recruiting is everyone's responsibility, not the job of a few specialists. In conjunction:

 1.d.3.a) <u>Permissive Orders</u>: Allow units to provide 1-day permissive orders to members on leave for recruiting purposes (e.g., visits to high schools, civic groups, etc.).
 1.d.3.b) <u>Awards</u>: Authorize Director of CG Recruiting to award the COMDT LOC for voluntary recruiting efforts of members.
 1.d.3.c) <u>Available Materials</u>: Have standard pre-prepared package of recruiting materials available to participants.
 1.d.3.d) <u>Ensure feedback/evaluation</u> system to gauge ROI for this program.
 1.d.3.e) <u>Field unit assistance</u> to recruiters should be formally established as a vital Service mission.

1.d.4. <u>Strengthen ties between G-CP (Public Affairs) and CGRC</u>. Establish PA billets in recruiting offices to improve professionalism of marketing/communications in recruiting operations.

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1.e. <u>Removing Barriers</u>

1.e.1. <u>Better management of applicants in a "caretaker" status</u> could significantly reduce pre-shipping attrition. Shortening or eliminating this period or making changes to effectively prepare applicants for Recruit Training will result in greater retention of qualified applicants thereby improving recruiter throughput. Both of these options should be further explored in follow-up analysis.

1.e.2. <u>Review and Validate Medical Standards</u>: Medical Standards are inconsistently applied at pre-enlistment MEPS screening and post-enlistment Recruit Training screening; this results in costly, otherwise avoidable attrition after arrival at Recruit Training. Presently, the CG spends $1.4M/yr for MEPS screening, the value of which may be completely negated by subsequent entrance examinations at Cape May. Standard, consistently applied medical criteria should be based on a complete review of the Coast Guard's needs.

APPROVED:_____   DISAPPROVED:_____

COMMENTS:

Section 2—Recruit Training

NWSS (Phase 1) research and analysis identified knowledge, skills, attitudes and abilities (KSAA's) required of nonrates. These attributes of the ideal nonrate, defined by both the organization and the field at large, provide a solid foundation for Recruit Training that will prepare these entry-level members for their first assignment and for a successful career of Coast Guard service. By encouraging recruits to see themselves as Coast Guard men and women, the new curriculum will build one of the most important foundations for career-long performance and motivation—Identity Formation. Toward this end, the recommended changes to the curriculum are significant—not only in *what* recruits are trained in, but even more so in *how* they are trained. The duration of the new Recruit Training curriculum should be commensurate with curriculum redesign; this up-front investment is too important to be driven by arbitrary time constraints (pre-design estimated duration is 8-10 weeks). The recommendations are organized into the following subsections: The Curriculum, Career Planning, and Supporting Elements.

2.a. The Curriculum

2.a.1. Complete Recruit Training Process Redesign: By threading new learning objectives throughout the Recruit Training experience, rather than employ the historical test-and-forget method, development and implementation of associated training will be dramatically improved. Training objectives will no longer be conveyed in discrete segments, but will be imparted throughout Recruit Training to enable recruits to internalize knowledge, develop skills, form attitudes, and acquire abilities needed to embark on a successful career. Motivation—a New Approach: There is a significant gap between what field supervisors expect and what nonrates demonstrate in terms of general motivation. Supervisors regard motivation as the "most important" of all nonrate attributes or skills. Motivation can be significantly influenced by the way in which training is conducted. The driving goal of Recruit Training must be to build future CG members, not to tear down former civilians—building motivation, rather than probing for weaknesses, must be behind every facet of Recruit Training. Recommend completely revamping Recruit Training instruction to impart new TPO's in the manner described above.

2.a.2. Theme-Based Recruit Training: Recruit Training should be infused with pervasive themes including Values, Pride, History, Heroes, and CG Culture—i.e., Motivation, Assimilation, Identity Formation as a member of the CG. These must be reinforced outside of Recruit Training at field units. Just as USMC Basic Training revolves around a set of historical events and heroes, the CG curriculum should focus on actual CG heroes and endeavors, past and present. By emphasizing the values that they exemplify, the challenges that they overcame, and the legacy that they have left for the new recruits to build upon, Recruit Training can effect in each recruit a personal transformation anchored in heritage. Such a transformation is paramount to skills development at this stage—being the right person will lead to doing the right thing. Recommend incorporation of these themes and methods into Recruit Training.

2.a.3. <u>Culminating Event</u>: Based on optimal KSAA's and the themes discussed above, a culminating event should be instituted in Recruit Training. This (USMC) Crucible-/(USN) Battle Stations-like experience would forge and refine the concepts above. More than a "final exam," this event is the defining moment at which a recruit makes the transformation to "Guardian of the Sea."

2.a.4. <u>New Training Aids</u>: Recommend providing various new training aids needed to support new Recruit Training skills development. A key training aid involves a ship mock-up (similar to that used by the Navy at TRACEN Great Lakes) for high-fidelity, all-weather, performance-based seamanship and watchstation training. A rough order-of-magnitude cost to construct this mockup is approximately $600K. Another option is using a decommissioned cutter as a static display platform. Although docking spaces may be an issue, possible rough cost would amount to approximately $250K annually, not including transit and shore-tie costs.

2.a.5. <u>Fitness/Wellness Program Redesign</u>: Development must be two-pronged: 1) need to train to generic physical standards solidly linked to job requirements, and 2) need to tailor personal program to foster life-long habits that enhance fitness/wellness of recruits individually. The premise is that all recruits need to be physically able to do the job of a nonrate. However, a single standard means that while some are challenged to improve, others are not. The desired state is that all recruits develop an overall fitness and wellness regimen that becomes a personal, lifetime pursuit. Recommend thorough analysis by G-WKH to develop this two-tiered approach.

2.b. <u>Career Planning</u>

2.b.1. <u>Career Expectations</u>: Realistic expectations are critical at every step of the accession system. Since this is a major contributing factor in creating motivation, better career planning in Recruit Training is essential. As a BM3 noted during a focus group, "We can't spend enough time helping people make smart career decisions." Recommendations in support of this include:

    2.b.1.a) <u>Electronic library/computer lab</u> should be established at Cape May to provide complete and current information on careers and career growth requirements and opportunities.

    2.b.1.b) <u>Force Manager involvement</u> needs to be institutionalized in Recruit Training to ensure the most current and accurate rating information possible is available to recruits.

    2.b.1.c) <u>The sponsorship program</u> needs to be overhauled. Recommend including the latest and complete unit/geographical data in electronic library mentioned above. Also, Cape May should maintain active liaison between Recruit Training staff and units that will receive graduates.

    2.b.1.d) <u>E-3 courses</u> should be distributed to all recruits before graduating from Recruit Training rather than after reporting to first unit.

2.b.2. <u>Move FN vs. SN decision</u> to a point as early as possible in Recruit Training. This is closely linked to item 1.d.2. concerning the desirability of front-end rating decisions. In addition,

    2.b.2.a) This must be an <u>individual choice</u> (notwithstanding Service needs).
    2.b.2.b) This should result in <u>SR's and FR's in Recruit Training</u>.

2.b.3. <u>Graduation Leave</u>: Ensure that recruit graduation leave is adjusted to avoid having nonrates report to first unit on a Fri/Sat/Sun (i.e., "First 72 Hours" concerns).

2.c. <u>Supporting Elements</u>

2.c.1. <u>Establish the Nonrate Advisory Committee (NAC),</u> successor to Enlisted Recruit Training Advisory Committee (ERTAC), as a body that regularly monitors the effectiveness of Recruit Training in developing nonrate performance. In conjunction with a formal charter institutionalizing this role, recommend that the NAC

    2.c.1.a) <u>Measure the "product quality" of Recruit Training</u> on a continual basis working in close partnership with the Performance Technology Branch at TRACEN Cape May. To this end, new external evaluations for Recruit Training must be tied directly to the NWSS-established and NAC-monitored nonrate optimals.
    2.c.1.b) <u>Ensure that curriculum changes are data-based</u>, predicated on established ideal attributes for nonrates, rather than subjective, reactionary adjustments that will ultimately detract from the real business of Recruit Training. Any new performance objectives must be the result of new nonrate optimals.

2.c.2. <u>Relocating SN and FN Force Managers</u> under G-WTL, rather than G-OCU and G-SRF respectively, would shift their emphasis more toward development rather than operations/engineering. This change in focus would be appropriate and beneficial for these entry-level enlisted members.

APPROVED:_____   DISAPPROVED:_____

COMMENTS:

Section 3—Company Commanders

The findings and recommendations of this section were derived from CCNA, the research and analysis of which identified core competencies that are required of a successful Company Commander (CC). The CC is the single most important variable in the Recruit Training equation. This position is too critical to be filled by anyone representing less than "the best"; recruits must be "imprinted" with only the best of CG role models. In this regard, it is one of the most important jobs in the Coast Guard. The findings and recommendations are organized into the following subsections: CC Selection and Development and Structure and Resources.

3.a. <u>CC Selection and Development</u>

    3.a.1. <u>New Roles</u>: Overemphasis on the CC's role as disciplinarian is counterproductive to their motivational mission. Instead, the CC should be thoroughly prepared to serve in multiple roles as coach, role model, instructor, supervisor, expert, and career counselor.

    3.a.2. <u>New techniques and models</u> should be employed by CC's to better motivate, socialize, and instill Coast Guard values in new recruits. These new motivation and socialization models, based on established principles and current research, move the motivation/socialization process from a short-term behaviorist model to a long-range eclectic model.

    3.a.3. <u>New Resident-Based CC Training Curriculum</u>: The CC C-School curriculum should be redesigned to incorporate all new resident-based TPO's recommended by the CCNA. Identification of CC core competencies revealed gaps in the current process of training and qualifying CC's. The CCNA developed completely new resident-training TPO's to target identified CC needs. This proposed redesign of CC training will better link development of CC knowledge, skills, attitudes, and abilities to the new Recruit Training TPO's and will prepare CC's for their new roles and methods discussed above.

    3.a.4. <u>New PQS for CC's</u>: CC's should be provided with on-the-job PQS based on non-resident TPO's derived from the CC core competencies.

    3.a.5. <u>Screening of CC's</u>: Aptitude interviews (such as those developed by the Gallup Organization) should be used in screening candidates for the job. Attitudinal/psychological instruments should be used to filter out candidates unsuited to the unique requirements of this job.

    3.a.6. <u>An annual training camp</u> should be conducted for personal assessment/screening of candidates before commencing company commander school.

Recommendations for Implementation—Enlisted Career Development Program

3.a.7. <u>Fully-Qualified Status</u>. Reassign (vice recirculate) company commanders who fail to qualify. Company commander billets must be filled with fully qualified members. Reassign company commanders who lose their quals for cause.

3.a.8. <u>Remove Assignment Barriers</u>: Motivation and incentive barriers must be minimized to attract the highest caliber candidates to this profoundly influential job. In addition to the following recommendations, the Enlisted Advancement Study Team (EAST) should investigate ways to eliminate harmful effects on advancement from this out-of-specialty assignment:

    3.b.1.a) <u>Assignment preference</u> for follow-on assignment,

    3.b.1.b) <u>Academic credit</u> for company commander C-school,

    3.b.1.c) <u>SDAP</u> at least on a par with other Services,

    3.b.1.d) <u>Allowances</u> for uniform/dry cleaning/haircuts

3.b. <u>Structure and Resources</u>

3.b.1. <u>An Electronic Performance Support System (EPSS)</u>, providing clear policy, procedures, and advice anytime day or night, should be provided to company commanders along with other necessary resources and problem-solving tools.

APPROVED:_____   DISAPPROVED:_____

COMMENTS:

Enclosure (1)

Section 4—First-Unit Performance

The NWSS analysis identified the knowledge, skills, attitudes, and abilities that nonrates should possess upon graduating from Recruit Training as well as those that they should develop at the first unit after entering the field. This allows for a proper division of responsibility of nonrate development between Recruit Training and field units. Nevertheless, it is the responsibility of the entire CG to continue in the development and mentoring of our junior enlisted troops. Our internal communications media, such as "CG Magazine," should strive to reinforce the themes and objectives imparted at Recruit Training. The first unit in particular must cultivate the seeds planted at Cape May; we must eradicate the mentality that nonrates should "forget everything you learned at Boot Camp." Subversion of initial indoctrination will undo the best recruit training. Remember the "Three-Team Commitment": Recruiting, Cape May, and the First Unit must be full-fledged partners, not disjointed components of accession. Specific first-unit recommendations are included below under the categories of Career Motivation and Development.

4.a. Career Motivation

    4.a.1. Eliminate minimum Time-In-Grade (TIG) for E-2 advancement to E-3 since this negatively affects reinforcement of motivation and initiative. As previously discussed, building and reinforcing motivation is a preeminent concern in the development of our most junior people. Arbitrarily holding back advancement of those with high initiative, ambition and performance is counterproductive to this end. We are presently recruiting members directly into the Coast Guard at paygrade E-3 without regard for prerequisite time-in-service requirements.

4.b. Development

    4.b.1. New Unit-Specific PQS should replace one-size-fits-all Performance-Based Qualifications for E-3. The NWSS indicated that generic performance qualifications at the E-3 level were impractical due to the predominant emphasis on attitude over skill and the short time elapsed since receipt of Recruit Training.

    4.b.2. New SN and FN Courses should be developed to reflect NWSS-defined nonrate on-the-job performance requirements.

APPROVED:_____   DISAPPROVED:_____

COMMENTS:

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Section 5—Petty Officers

Leadership support should be provided where it most counts for nonrates, at the junior petty officer level. As one member noted during a focus group, "Our leadership training is upside down, we train officers but not junior enlisteds." Yet, in reality nonrates have much greater day-to-day dealings with junior enlisted supervisors than with officers. Furthermore, because competencies required of CPO's cannot all be imparted at the E-6-to-E-7 transition point, they must be the culmination of development all along the way on the career path. This is why the PODI is so crucial in building the foundation at the mid-grade enlisted levels. The PODI prescribed leadership-related performance requirements by matching each of the 21 leadership competencies, established by Leadership Workgroup 2, to the rates in which they become effective. The PODI also prescribed the means for competency development to be provided through appropriate professional growth interventions such as A-schools, Striker Program, General Military Requirements (MRN's) including Performance-Based Qualifications (PBQ's) and knowledge elements of advancement courses. Associated recommendations fall under the heading of Development.

5.a. Development

    5.a.1. A-School Leadership Training: An analysis of the A-school leadership program should be conducted to better define actual leadership needs at the E-3 level. Research consistently indicated that the "leadership" most often affecting nonrate performance is from junior petty officers rather than officers and chiefs. Previous work in this area serves as a good starting point; however, a reassessment is in order since this must be put in context of the entire ECDP progression of professional development.

    5.a.2. Strikers and Direct-Accession Petty Officer Leadership Training: Each petty officer candidate, including those who do not attend A-school (i.e., Strikers and Direct-Accession Petty Officers) should be required to complete the same resident-based leadership module as A-school students. All petty officers require this common leadership foundation.

    5.a.3. Leadership Training at the E-5 Level: The Leadership and Management School (LAMS) should be retargeted to the E-5 level. This paygrade represents the "forgotten middle" of the enlisted ranks in which the exercise of leadership has traditionally been expected without corresponding leadership development support. LAMS should be structured in resident, exportable, or distance modes as appropriate in order to afford this training to *all* E-5's upon advancement.

APPROVED:_____   DISAPPROVED:_____

COMMENTS:

Enclosure (1)

Section 6—Chief Petty Officers

CPONA research and analysis identified knowledge, skills, attitudes and abilities (KSAA's) required of E-7's thereby providing a solid foundation for the CPO Academy. This PODI foundation and the CPONA emphasis on bridging the gap from intermediate to senior enlisted grades will help ensure the best preparation for our senior-most enlisted leadership. Recommendations again fall under the area of Development.

6.a. <u>Development</u>

6.a.1. <u>Develop a Completely New CPO Academy:</u> The CPO Academy's resident-based instruction has been redesigned in conjunction with a shift in the target population from E-8's to new E-7's making the transition from E-6. The new curriculum, based on the optimal KSAA's for CPO's, should serve as "pipeline training" for entry into the Chiefs Corps.

6.a.2. <u>Conduct a Senior Enlisted Needs Assessment (SENA):</u> The SENA project should be funded and implemented to complete the ECDP series at the top end of the enlisted spectrum. This study should also develop the requirements for the Command Master Chief and Career Information Specialist programs and ensure they are in compliance with Public Law 85-422 422 (which established the E-8 and E-9 paygrades) while meeting the needs of the Coast Guard.

APPROVED:_____   DISAPPROVED:_____

COMMENTS:

Section 7—General Recommendations

Finally, this section contains recommendations that do not fit entirely within one of the six previous sections. They are recommendations that surfaced very clearly in the ECDP analyses, but apply throughout the entire enlisted spectrum.

7.a. Create a basic HR database to capture information that will allow the CG to make sound business decisions to reverse harmful trends or enhance positive influences. Examples of invaluable information that must be collected and tracked over time include: reasons for enlistment, reasons for recruit attrition, reasons for RELAD (at every level), reasons for reenlistment (at every level), etc. Structured data will enable course corrections based on objective, rather than anecdotal, evidence.

    7.a.1. Training Analysis System (TAS): On a related note, we should support continued development of the TAS at Cape May to allow for multi-variable analysis of factors that indicate propensities and predictors for success or failure throughout the accession system.

7.b. Performance-Based Workforce Competence Assessment: An instrument should be designed to assess competence based on performance expectations—a comprehensive evaluation and measurement system to show the results, quantitative and qualitative, for every course at every level. This would provide immediate indication of problems and flexibility to develop targeted interventions.

7.c. Overhaul Mentoring Program: Conduct a needs assessment and create an evaluation mechanism for this program. Repeatedly, the Mentoring program surfaced in the focus groups. Widespread confusion about the current program, in the face of an obvious need for mentoring relationships in the development process, indicates the need for greater clarity and accessibility in order for this program to broadly help more of our people.

7.d. Guaranteed Striker billets should be greatly expanded. This would be a significant recruiting tool related to discussion in section 1.d.2. above. All nonrate billets at stations should be striker billets for applicants or SA's/FA's wishing to become BM/MK. If nonrate advances to BM3/MK3 while at a station, do not reassign—allow member to complete tour. This would help remedy the revolving-door problem at stations thus providing for greater stability of the stations' workforce. Stations presently have little incentive to develop nonrates who rotate upon advancement to E-3. If a nonrate is assigned to a station after initial 2yrs. afloat (per existing policy), a minimum 1-yr. follow-on tour length should be required at the station to further improve return on investment for the professional development of nonrates.

7.e. Redesign Enlisted Performance Evaluation Forms (EPEF's) to reflect optimals (KSAA's) defined by NWSS and CPONA. Task the Enlisted Advancement Study Team (EAST) with ensuring this basic linkage between the performance we require/expect and that which we evaluate.

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7.f. <u>Analyze the CG Personnel Qualifications Standards (PQS) and Job Qualification Requirements (JQR) system</u> to ensure consistent and coordinated oversight. This alignment should be at both the organization and job level; written policy should clearly outline and support organization-wide performance requirements, and PQS tasks should be directly linked to a member's job performance. Furthermore, the analysis should identify gaps in PQS/JQR standardization and qualification criteria at the unit level. Finally, the analysis should provide recommendations concerning database management identifying the ideal method and means to capture, store, and retrieve a member's record of personal qualifications as they progress in their career.

7.g. <u>Analyze the Enlisted Ratings Performance-Based Qualification (PBQ) System</u>: A complete overhaul of this system is required; the current system provides no standard way to create or revise a PBQ associated with a rating. The system is inflexible and inadequate with numerous problems involving sign-off procedures, qualifications waivers, access to quals-related equipment, old technologies, etc. As the means by which we document the performance requirements of each rate and rating, PBQ's are a critical element of our Human Resources System. An analysis to reengineer the system—leading to new procedures to create, change, complete, sign off, and document PBQ's—should be conducted to ensure a completely performance-based set of quals (PBQ's) for every rating.

7.h. <u>Redesign of Non-Resident-Based Military Requirements (MRN) Courses</u>: The MRN system for developing Coast Guard knowledge is not adding value in its current form. By loading MRN's with "trivial pursuit" type of elements, we have wasted a valuable opportunity to have our members study important information for their own development and for instilling our history and culture. Recommend developing MRN courses that have been designed for all levels E-3 to E-7, anchored by NWSS and CPONA optimals, with each successive module building upon the previous modules. These should be compiled in a single-source MRN reference to be distributed to all enlisted members of all paygrades (similar to USAF handbook).

7.i. <u>MRN Performance-Based Qualifications (PBQ's)</u> should be changed for E-3 to E-7 by designing new on-the-job PBQ's that develop toward mastery of the prerequisite skills for a chief. In conjunction with this, MRN-PBQ performance checklists should be developed for the units to use as sign-off job aids that provide examples of what performances should include.

7.j. <u>Review Nonrate Billets</u>. A sub-team of the NWSS, working with representatives of Workforce Planning (G-WR-2), studied nonrate occupational analysis data and identified the amount work done by nonrates that is unproductive to their career development. This work primarily involves janitorial, grounds-keeping, and data-entry activities at non-afloat units. Based on a unit-specific conversion of work hours to FTE, about 275 billets were identified as candidates for reprogramming by finding alternative sources for the non-career-oriented work. Recommend that the appropriate Program/Facility Managers review the work-hour conversions and assess feasibility (including cost effectiveness of alternative sources of labor) of reprogramming nonrate billets in question.

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Recommendations for Implementation—Enlisted Career Development Program

7.k. <u>Establish a HQ Implementation Team</u> for all ECDP implementation efforts. The team would be charged with oversight, coordination, and integration of all ECDP recommendations approved for implementation. The Performance Consulting Division (G-WTT-1), having served as overall planner, coordinator, and leader of the ECDP analyses, should develop a charter for this team complete with resource requirements needed to implement approved recommendations.

APPROVED:_____   DISAPPROVED:_____

COMMENTS:

Enclosure (1)

Implementation in Progress

The Coast Guard is an action-oriented organization and the data from these studies have been available for several months while focus groups were conducted. Because of our proactive nature, work on the following items from the above recommendations is already in progress to varying degrees. These items have been included to complete the record of proposals from the ECDP studies and to elicit continued support for their development. The charter for the Headquarters ECDP Implementation Team will identify any additional resources required for their completion.

1.a.1. New Resident-Based Recruiter Training Curriculum

2.c.1. Establish the Nonrate Advisory Committee (NAC)

3.b.1. An Electronic Performance Support System (EPSS) (for Company Commanders)

6.a.1. Develop a Completely New CPO Academy

7.a.1. Training Analysis System (TAS)

7.e. Redesign Enlisted Performance Evaluation Forms (EPEF's)

Enclosure (1)

APPENDIX B

CHIEF PETTY OFFICER ACADEMY CURRICULUM TERMINAL PERFORMANCE
OBJECTIVE AND ENABLING OBJECTIVES

CPO Academy Curriculum Terminal Performance Objectives and Enabling Objectives

Approved Implementation Date: 01 October 1998

UNIT 1.0 - Professionalism

TPO 1.1 Given the Coast Guard's core values, the Chief's Creed, the Roles and Responsibilities of CPO's, and a Personal Wellness Profile, DEMONSTRATE the professionalism required of a CPO.

Enabling Objectives:
- DEMONSTRATE proper interpersonal communication skills (e.g., listening, and feedback, non-verbal/verbal
- DEFINE how to recognize and manage stress in self and others.
- COMPLETE a Stress Map.
- EXPLAIN the Role of the Chief.
- DEMONSTRATE the impact of consistent enforcement of rules and policies on others.
- EXPLAIN the importance of having a positive attitude and being proactive.
- DEFINE the CG Core Values and how they impact daily decision-making.
- DEMONSTRATE proper military appearance.
- DEMONSTRATE proper daily diet.
- DEVELOP a personal fitness program.
- ESTABLISH a personal education program.
- PARTICIPATE in discussions about CCTI and the Chief's Creed.
- PRESENT an informal briefing.
- INTRODUCE a speaker.
- APPLY the principles of military protocol and etiquette.
- PARTICIPATE in a question and answer session with the Commandant or Vice Commandant.
- PARTICIPATE in question and answer session with the Master Chief Petty Officer of the Coast Guard.
- Attend a formal graduation

TPO 1.2 Given an ethical dilemma, PARTICIPATE in discussions which include consequences, advantages, and potential individual unit, and organizational impact for each resolution per *How Good People Make Tough Choices*.

Enabling Objectives:

- EXPLAIN how trust in others (workplace, home, community, self) impacts ethical decisions.
- DISCRIMINATE between Right vs. Right and Right vs. Wrong decisions.

- DESCRIBE the impact and result your ethical decisions have on others.
- DESCRIBE how diversity issues influence ethical decision-making.
- EXPLAIN how critical thinking skills can be applied to resolve ethical dilemmas.

UNIT 2.0 - Communications

TPO 2.1   Given scenarios, writing assignments, and a standard workstation, WRITE and/or EDIT the administrative items for spelling, grammar, punctuation, and content.

Enabling Objectives:
- EXPLAIN the chain-of-command for correspondence.
- IDENTIFY intended audience for whom you are writing.
- PREPARE/EDIT an award recommendation.
- COMPLETE the Advanced Aztec courseware in the following subject areas: Reading, Writing, Vocabulary, Spelling, Punctuation, Grammar, and Proofreading.
- DEMONSTRATE the basic skills in using Windows and SWIII, Word software.
- WRITE/EDIT a CG Letter.

TPO 2.2   Given a CG Process Improvement Guide and Learn to Communicate, FACILITATE a group through a meeting in accordance with the Facilitator Development Sheet.

Enabling Objectives:
- DEMONSTRATE how non-verbal language impacts facilitator efforts.
- DEMONSTRATE good active listening skills.
- EXPLAIN the importance of feedback and the characteristics of good feedback.
- IDENTIFY the different types of meetings and participants for each.
- EXPLAIN different types of decision-making methods.
- EXPLAIN importance of team leader/facilitator alignment.
- DEFINE stages of group development and how they impact facilitation efforts and group behavior.
- USE the correct tools for idea generation and paring/prioritizing.
- EXPLAIN when JIT may be needed during the course of facilitation.
- EXPLAIN roles and responsibilities of the team leader and the facilitator.
- DEMONSTRATE proper meeting management behaviors and practices.
- EXPLAIN the importance of recognizing diversity in group settings.
- EXPLAIN the formal and informal roles exhibited during facilitation efforts

UNIT 3.0 - Military Leadership

TPO 3.1   Given a leadership case study, PRESENT (as a member of a team) an analysis in a 30-45 minute presentation incorporating the team's findings on how CG core values, ethical dilemmas, and principles of leadership and motivation models potentially impacted the performance of the entities in

the case study. Provide solutions the team recommends to compensate deficiencies identified in accordance with the Leadership Case Study Presentation Checksheet.

Enabling Objectives
- COMPARE various leadership theories and models.
- DESCRIBE what is meant by the terms: delegation and empowerment.
- EXPLAIN how critical thinking concepts impact leadership models.
- DESCRIBE how Core Values impact leadership styles.
- PARTICIPATE in an awareness workshop of leadership styles, philosophies, and issues of military leadership.

TPO 3.2 Given leadership and motivational models, the Learning Style Inventory, an educational assessment, and Myers-Briggs Type Indicator, WRITE a paper (minimum 3 pages) which outlines how you will use the leadership and motivational models to help you achieve your professional and personal goals. Include a Personal Action Plan and a Career Development Plan.

Enabling Objectives:
- DESCRIBE the impact your behaviors have on others.
- IDENTIFY personal strengths and areas for improvement.
- PARTICIPATE in a discussion regarding leadership vs. management.
- DEVELOP a team vision statement.
- DISCUSS principles of stress management
- PARTICIPATE in a Myers-Briggs personality profile seminar
- PARTICIPATE in a discussion about Situational Leadership.
- COMPLETE the Learning-Style Inventory self-scoring booklet.
- PARTICIPATE in discussions about the cycle and stages of learning.
- IDENTIFY different facets of diversity and how to manage diversity within the workplace.
- PARTICIPATE in a discussion about the Interact Model.
- PREPARE a personal assessment on values and attitudes in accordance with Edge Learning Institute's "Increasing Human Effectiveness III."
- PARTICIPATE in a seminar regarding "diversity."
- EXPLAIN when, how and why to prioritize and delegate.
- COMPLETE a CG 1560
- COMPLETE and SUBMIT an Educational/Work Experience Evaluation Form for school/training you have attended.
- DESCRIBE the purpose of the ACE guide and how it relates to you and others at your unit.

TPO 3.3   Given experiential team building and problem solving exercises, ANALYZE how team roles and interpersonal interaction impacted the performance of the group.

Enabling Objectives:
- PARTICIPATE in team building exercises.
- EXPLAIN impact of own behavior on others.

TPO 3.4   Given a scenario requiring a counseling session, DEMONSTRATE the skills and characteristics necessary to provide assistance with a specific problem, exploring alternative behaviors and means to cope with, or avoid problems, issues, or situations for groups and individuals.

Enabling Objectives:
- DESCRIBE the officer and enlisted career development system.
- DESCRIBE technical training and educational opportunities available to CG personnel.
- DESCRIBE the assignment system for both officer and enlisted personnel.
- EXPLAIN the differences between traditional and non-traditional training/education.
- PARTICIPATE in a discussion on the Enlisted Performance Evaluation System.
- COMPLETE a tuition assistance form.
- ADVISE a member about CG Work-Life programs.
- PARTICIPATE in discussions on formal/informal mentoring
- DESCRIBE the roles of the CMC, CDA, ESO and Chain of Command.
- PARTICIPATE in discussions on the Service School Selection Process.
- DISCRIMINATE between formal and informal counseling sessions and identify when to use each.
- DEFINE various types and stages of counseling sessions.
- EXPLAIN how your attitude and behavior impact others during a counseling session.
- EXPLAIN how consistent enforcement of rules and policies impacts unit personnel.
- DEFINE timely as it relates to counseling sessions.
- EXPLAIN the limitations of counseling others (confidentiality, experience level, etc.).
- EXPLAIN what resources are available for referrals.
- EXPLAIN potential legal requirements for various counseling sessions.
- DEFINE the term Generation
- DESCRIBE the components of a Generation Cycle
- DESCRIBE how the Formation of World View impacts generations
- IDENTIFY the significant trends of living generation
- COMPARE and contrast common characteristics of the two most common generational groups within the armed forces. (Boomers and 13ER's)
- REVIEW comparisons between the Silent, Boom and 13ER generation groups
- DESCRIBE techniques that promote more effective communication in dealing with cross-generational workplace issues.

UNIT 4.0 - Systemic Thinker and Life Long Learner

TPO 4.1   Given the Commandant's Criteria for Performance Excellence General Business Factors worksheet, PRESENT a 15 minute Unit Analysis Brief in accordance with the Unit Presentation Checksheet.

Enabling Objectives:
- PARTICIPATE in discussion on work as a process using the SIPOC and New Language of Work models.
- EXPLAIN the Commandant's Criteria to Performance Excellence using the "Baldrige as a System" model.
- COMPLETE the Commandant's Criteria for Performance Excellence General Business Factors Worksheet for the unit currently stationed at.
- DEFINE the difference between partnership and networking.
- DESCRIBE the benefits to you, your unit, and the organization for having and maintaining networks.
- DEFINE formal and informal networks and the goals of each.
- DESCRIBE what you need to do to maintain a proper network.

TPO 4.2   Given a CG Process Improvement Guide and Learn to Communicate, FACILITATE a group through a module of the Process Improvement Roadmap in accordance with the Facilitator Development Sheet.

Enabling Objectives:
- DEMONSTRATE how to use the Process Improvement Roadmap or the Problem-Solving Roadmap to improve performance of a process.
- EXPLAIN the concepts of Performance Measures.
- IDENTIFY data measurement models and tools.
- IDENTIFY ways to display and interpret the data.

TPO 4.3   Given a scenario, CONDUCT (as a member of a team) a 30-45 minute presentation of a systems diagram which shows the system, impact, risks, consequences, and linkages on other parts of the systems from the perspective of the individual, unit, CG organization, and community which incorporates a Change Management Plan in accordance with the Systems Thinking Team Presentation Checklist.

Enabling Objectives:
- EXPLAIN why critical thinking is important to systems thinking.
- DESCRIBE how to calculate risks.
- DESCRIBE the importance to seeking alternatives to various problem resolutions.
- EXPLAIN what constitutes a system.
- EXPLAIN "Big Picture Thinking".
- EXPLAIN why strategic planning is important in relation to systems thinking.

- DEFINE what is means to start with "the end in mind."
- DESCRIBE the Oxford Mind Map and how it pertains to systems thinking.
- DESCRIBE what constitutes strategic planning and the various needed components.
- EXPLAIN how decisions impact other systems.
- EXPLAIN how a decision matrix can be used in exploring alternative.
- MAP out a CG system.
- EXPLAIN how group dynamics impact change management.
- DISCRIMINATE between the various roles in the presented change management models.
- IDENTIFY the roles of the change agent.
- DEMONSTRATE empathetic listening skills.
- COMPLETE the Critical Thinking Aztec courseware.
- COMPLETE the Advanced Problem-Solving courseware.

APPENDIX C

UNITED STATES COAST GUARD LEADERSHIP COMPETENCIES

Coast Guard Leadership Competencies

Leadership competencies are the knowledge, skills, and expertise the Coast Guard expects of its leaders. The 28 leadership competencies are keys to career success. Developing them in all Coast Guard people will result in the continuous improvement necessary for us to remain always ready — Semper Paratus. While there is some overlap in these competencies, they generally fall within four broad categories, described below:

Leading Self

Fundamental to successful development as a leader is an understanding of self and one's own abilities. This includes understanding one's personality, values, and preferences, while simultaneously recognizing one's potential as a Coast Guard member.

Leading Others

Leadership involves working with and influencing others to achieve common goals. Coast Guard members interact with others in many ways, whether as supervisor, mentor, manager, team member, team leader, peer, or worker. Positive professional relationships provide a foundation for the success of our Service. Developing the competencies within this category will increase the capacity to serve.

Leading Performance and Change

The Coast Guard and its members constantly face challenges in mission operations. To meet these challenges, leaders must apply performance competencies to their daily duties. Having these competencies enables each leader — and the Service — to perform to the utmost in any situation.

Leading the Coast Guard

The Coast Guard does not exist in a vacuum. As leaders gain experience in the Coast Guard, they must understand how it fits into a broader structure of department, branch, government, and the nation as a whole. At a local level, leaders often develop partnerships with public and private sector organizations in order to accomplish the mission. The Coast Guard "plugs in" via its key systems: money, people, and technology. A leader must thoroughly understand these systems and how they interact with similar systems outside the Coast Guard. An awareness of the Coast Guard's value to the nation, and promoting that using a deep understanding of the political system in which we operate becomes more important as one gets more senior. Leaders must develop coalitions and partnerships with allies inside and outside the Coast Guard.

28 Leadership Competencies

Category: Leading Self

Accountability and Responsibility
Coast Guard leaders know ours is a military service and recognize the organizational structure and the chain of command. Each individual is sensitive to the impact of his or her behavior on others and the organization. Leaders take ownership for their areas of responsibility, are accountable to effectively organize and prioritize tasks, and efficiently use resources. Regulations and guidelines that govern accountability and responsibility allow leaders to use appropriate formal tools to hold others accountable when situations warrant.

Followership
All Coast Guard members are followers. The followership role encompasses initiative, commitment, responsibility, accountability, critical thinking, and effective communications. Followers look to leaders for guidance and feedback; they expect challenging tasks to both learn and develop competence. Actively involved, they seek to understand through listening, responsible questioning and feedback. Followers have the responsibility to work with leaders to ensure successful mission accomplishment.

Self Awareness and Learning
Coast Guard leaders are self-objective. They continually work to assess self and personal behavior, seek and are open to feedback to confirm strengths and identify areas for improvement, and are sensitive to the impact of their behavior on others. Successful leaders use various evaluation tools and indicators to assist in this process of understanding themselves. Coast Guard leaders understand that leadership and professional development is a life-long journey and always work to improve knowledge, skills, and expertise. To that end, they seek feedback from others and opportunities for self-learning and development, always learning from their experiences. Leaders guide and challenge subordinates and peers, encouraging individuals to ask questions and be involved. Leaders are open to and seek new information and adapt their behavior and work methods in response to changing conditions.

Aligning Values
Coast Guard leaders develop and maintain an understanding of the Coast Guard Core Values of Honor, Respect and Devotion to Duty. Leaders align personal values with organizational values, reconciling any differences that exist. Leaders embody the highest standards of Coast Guard Core Values, can communicate their meaning, hold peers and subordinates accountable to these organizational merits, and use them to guide performance, conduct, and decisions—every day.

Health and Well-Being
Leaders consider the environment in which they and their people work, attending to safety and well-being. They effectively identify and manage stress. They set a personal health example with emphasis on a program of physical fitness and emotional strength.

Leaders encourage others to develop personal programs including physical, mental, and spiritual well-being.

Personal Conduct

Leaders demonstrate belief in their own abilities and ideas; are self-motivated, results-oriented, and accountable for their performance; recognize personal strengths and weaknesses; emphasize personal character development; and use position and personal power appropriately. They understand the relevance and importance of Coast Guard Core Values and strive for personal conduct that exemplifies these values.

Technical Proficiency

Coast Guard leaders' technical knowledge, skills, and expertise allow them to effectively organize and prioritize tasks and use resources efficiently. Always aware of how their actions contribute to overall organizational success, leaders demonstrate technical and functional proficiency. They maintain credibility with others on technical matters and keep current on technological advances in professional areas. Successful leaders work to initiate actions and competently maintain systems in their area of responsibility.

<center>Category: Leading Others</center>

Effective Communications

Coast Guard leaders communicate effectively in both formal and informal settings. Good listeners, they reinforce the message they convey with supportive mannerisms. Leaders express facts and ideas succinctly and logically, facilitate an open exchange of ideas, ask for feedback routinely, and communicate face-to-face whenever possible. They write clear, concise, and organized correspondence and reports. Successful leaders prepare and deliver effective presentations. In situations requiring public speaking they deliver organized statements, field audience questions, confidently communicate with the media and other external entities, and distinguish between personal communication situations and those as a Coast Guard representative. Competent coaches, supervisors, followers, performance counselors, interviewers, and negotiators, leaders know how to approach many situations to achieve organizational goals.

Influencing Others

Coast Guard leaders possess the ability to persuade and motivate others to achieve the desired outcome: to create change. They influence and persuade by communicating, directing, coaching, and delegating, as the situation requires. Successful leaders understand the importance and relevance of professional relationships, develop networks, gain cooperation and commitment from others, build consensus, empower others by sharing power and responsibility, and establish and maintain rapport with key players.

Respect for Others and Diversity Management

Through trust, empowerment, and teamwork, Coast Guard leaders create an environment that supports diverse perspectives, approaches and thinking, fairness, dignity, compassion, and creativity. They demonstrate sensitivity to cultural diversity, race, gender, background, experience, and other individual differences in the workplace.

Leaders guide and persuade others to see the value of diversity, building and maintaining a healthy working environment.

Team Building
Leaders recognize and contribute to group processes; encourage and facilitate cooperation, pride, trust, and group identity; and build commitment, team spirit, and strong relationships. Coast Guard leaders inspire, guide, and create an environment that motivates others toward goal accomplishment; consider and respond to others' needs, feelings, and capabilities; and adjust their approach to suit various individuals and situations. Coast Guard leaders have a historical perspective of leadership theory that they continually develop through personal experience and study of contemporary leadership issues. They work with subordinates to develop their leadership knowledge and skills. Coast Guard leaders adapt leadership styles to a variety of situations and personify high standards of honesty, integrity, trust, openness, and respect for others by applying these values and styles to daily behavior.

Taking Care of People
Successful leaders identify others' needs and abilities in the Coast Guard, particularly subordinates'. They ensure fair, equitable treatment; project high expectations for subordinates and/or their teams; express confidence in abilities; recognize efforts; and use reward systems effectively and fairly. Leaders appropriately support and assist in professional and personal situations and use formal programs to resolve situations positively.

Mentoring
Drawing on their experience and knowledge, leaders deliberately assist others in developing themselves, provide objective feedback about leadership and career development, and help identify professional potential, strengths, and areas for improvement. Successful leaders identify with the role of mentor to their staff. They have the skill to advise and develop others in the competencies needed to accomplish current and future goals. Leaders seek out mentors for themselves and may be engaged in the formal Coast Guard mentoring program both as mentors and mentees.

Category: Leading Performance and Change

Customer Focus
Coast Guard leaders know who their customers are and make every possible effort to find out their customers' needs and to hear their customers' voices. Leaders understand the importance of measuring and monitoring the degree to which their customers' needs are met or exceeded and continually strive to improve that. Coast Guard leaders understand the distinction between "customer" and "boss" and act accordingly to balance competing demands.

Management and Process Improvement
Successful leaders demonstrate the ability to plan, organize, and prioritize realistic tasks and responsibilities for themselves and their people. They use goals, milestones, and

control mechanisms for projects. Leaders seek, anticipate, and meet customers' needs—internal and external. To achieve quality results, Coast Guard leaders monitor and evaluate progress and outcomes produced by current processes, ensure continuous improvement through periodic assessment, and are committed to improving products, services, and overall customer satisfaction. They effectively manage time and resources to successfully accomplish goals.

Decision Making and Problem Solving

Leaders identify and analyze problems; use facts, input from others, and sound reasoning to reach conclusions; explore various alternative solutions; distinguish between relevant and irrelevant information; perceive the impact and implications of decisions; and commit to action, even in uncertain situations, to accomplish organizational goals. They evaluate risk levels, create risk control alternatives, and implement risk controls. Successful leaders are able to isolate high-importance issues, analyze pertinent information, involve others in decisions that affect them, generate promising solutions, and consistently render judgments with lasting, positive impact.

Conflict Management

Coast Guard leaders facilitate open communication of controversial issues while maintaining relationships and teamwork. They effectively use collaboration as a style of managing contention; confront conflict positively and constructively to minimize impact to self, others, and the organization; and reduce conflict and build relationships and teams by specifying clear goals, roles, and processes.

Creativity and Innovation

Leaders develop new insights into situations and apply innovative solutions to make unit and functional improvements. Leaders create a work environment that encourages creative thinking and innovation. They take reasonable risks and learn from the inevitable mistakes that accompany prudent risk-taking—and they apply this same thinking to those who work for them, encouraging innovation and helping their people apply the lessons learned. Leaders design and implement new or cutting-edge programs and processes.

Vision Development and Implementation

Leaders are able to envision a preferred future for their units and functions, setting this picture in the context of the Coast Guard's overall vision, missions, strategy, and driving forces. Concerned with long-term success, leaders establish and communicate organizational objectives and monitor progress toward objectives; initiate action; and provide structure and systems to achieve goals. Leaders create a shared vision of the organization, promote wide ownership, manage and champion organizational change, and engineer changes in processes and structure to improve organizational goal accomplishment.

Category: Leading the Coast Guard

Stewardship
The Coast Guard's unofficial motto was once, "You have to go out – but you don't have to come back!" This bravado was a testament to the bravery and commitment to service of Coast Guard men and women. But a more appropriate motto might be, "You have to go out, and you have to come back, and you have to bring our resources back because we'll need them again tomorrow!" Performing the mission at ANY cost is an unacceptable risk, not only to those immediately involved, but to all those who would have benefited from the efforts of those people and their resources tomorrow, and next week, and next year. Protecting the nation's investment is important and presents a difficult decision when it means failing now in order to succeed tomorrow. Achieving the proper balance is a crucial element of leading.

Technology Management
Technological advances make it possible to improve mission performance, provided prudent investments are made up front. Coast Guard leaders use efficient and cost-effective approaches to integrate technology into the workplace and improve program effectiveness. Leaders develop strategies using new technology to enhance decision-making. They fully appreciate the impact of technological changes on the organization.

Financial Management
The Coast Guard's budget and financial management systems are analogous to a nervous system. Leaders must demonstrate broad understanding of the principles of financial management and marketing expertise necessary to ensure appropriate funding levels for their areas of responsibility. They prepare, justify, and/or administer the budget for the unit or program; use cost-benefit thinking to set priorities; and monitor expenditures in support of programs and policies. Leaders seek and identify cost-effective approaches and manage procurement and contracting appropriately.

Human Resource Management
Coast Guard leaders understand and support the civilian and military staffing systems and assess current and future staffing needs based on organizational goals and budget realities. Making decisions that are merit-based, they ensure their people are appropriately selected, developed, trained, assigned, evaluated, and rewarded. Leaders take corrective action when needed. They guide and mentor others in appropriate interaction with these system elements. Leaders support personnel completing requirements for advancement, special programs, or future assignment; recognize positive performance and development through the formal reward system; and assist others in requesting formal training or developmental assignments.

Partnering
The Coast Guard exists within a broader envelope of partners and stakeholder organizations. Leaders must develop networks and build alliances, engaging in cross-functional activities where it makes sense. Leaders collaborate across boundaries and find

common ground with a widening range of stakeholders at the local and national level and use their contacts to build and strengthen internal bases of support.

External Awareness
Leaders identify and keep up to date on key national and international policies and economic, political, and social trends that affect the organization. Coast Guard leaders understand near-term and long-range plans and determine how best to be positioned to achieve the advantage in an increasingly competitive national economic climate.

Entrepreneurship
Leaders seek and identify opportunities to develop and market new products and services within or outside of the Coast Guard. Leaders are willing to take risks and initiate actions that involve a deliberate risk to achieve a recognized benefit or advantage.

Political Savvy
Coast Guard leaders identify the internal and external politics that impact the work of the Coast Guard and the Department. Leaders approach each problem situation with a clear perception of organizational and political reality and recognize the impact of alternative courses of action.

Strategic Thinking
Coast Guard leaders react to crises immediately and routinely solve urgent problems. In keeping with the concepts described as Stewardship, Coast Guard leaders must also consider multiple time horizons and very complex interactions. This requires thinking strategically, which consists of adopting a systems view, focusing on intent—what are we really trying to accomplish?, thinking across time horizons, creating and testing hypotheses, and being intelligently opportunistic—taking advantage of current conditions.

APPENDIX D

KIRKPATRICK'S LEVEL 1 AND 3 DATA COLLECTED FROM CHIEF PETTY
OFFICER ACADEMY SURVEY

Kirkpatrick Level 1 and 3 Data collected from the Chief Petty Officer Academy

     The below questions were asked to the Chief Petty Officers and their direct supervisors a few months after graduation. Level 1 data is labeled CPO, which is the Chief Petty Officers mean response to the question. Level 3 data is labeled Supervisor, which is the Supervisors mean response to the question. Level 1 (CPO, $n = 190$) and Level 3 (Supervisor, $n = 102$) survey data from CPOACAD 2003 graduating classes. The score represents the chief's skill level on a Likert scale survey. The answer options range from 2 = Minimal, 3 = Below Average, 4 = Average, 5 = Above Average and 6 = Expert. There was an additional option to answer 1 = No opportunity to perform, but that information is not included in the means. The survey was sent out a few months after graduation. Both the Pre and Post data were entered at the same time.

1. Present an informal briefing.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.88		4.33	
Post	4.72	0.84	4.90	0.57

2. Promote and model the United States Coast Guard values.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	4.18		4.58	
Post	4.85	0.67	5.06	0.48

3. Actively participate in the Chief's Mess.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.89		4.35	
Post	4.56	0.66	4.94	0.59

4. Develop a personal fitness program for himself/ herself or unit.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.62		4.02	
Post	4.49	0.87	4.31	0.30

5. Use the principles of stress management to reduce stress in his/ her life as well as subordinates.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.58		4.18	
Post	4.50	0.92	4.64	0.46

6. Use the principles of Ethical Decision Making to make decisions.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	4.07		4.60	
Post	4.62	0.55	4.95	0.35

7. Edit United States Coast Guard correspondence/ award recommendations for spelling, grammar, punctuation and conduct.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.74		4.09	
Post	4.68	0.94	4.70	0.61

8. Effectively facilitate a meeting.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.71		4.33	
Post	4.63	0.92	4.42	0.09

9. Improve performance of his/ her workgroup through delegation and empowerment.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	4.02		4.31	
Post	4.81	0.79	4.83	0.52

10. Improve performance of his/ her workgroup through leadership and motivation.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	4.13		4.41	
Post	4.84	0.71	4.91	0.50

11. Use Increasing Human Effectiveness principles for increased personal effectiveness.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.22		4.16	
Post	4.38	1.15	4.49	0.34

12. Use a career development plan to reach professional goals.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.53		4.22	
Post	4.53	1.00	4.69	0.47

13. Advise United States Coast Guard personnel on educational opportunities available.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.81		4.31	
Post	4.75	0.94	4.74	0.44

14. Advise United States Coast Guard personnel on the enlisted assignment available.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.97		4.48	
Post	4.69	0.72	4.81	0.33

15. Conduct informal and formal counseling sessions when appropriate to the situation.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	4.01		4.59	
Post	4.89	0.85	5.15	0.56

16. Use performance measures to gauge and improve individual and unit performance.

	CPO		Supervisor	
Survey	M	Delta	M	Delta
Pre	3.73		4.16	
Post	4.48	0.75	4.54	0.38

17. Use system thinking principles when making decisions.

Survey	CPO		Supervisor	
	M	Delta	M	Delta
Pre	3.50		4.21	
Post	4.26	0.75	4.67	0.46

18. Use Myers-Briggs results and theories for increased personal effectiveness.

Survey	CPO	
	M	Delta
Pre	3.12	
Post	4.17	1.06

19. Use learning style inventory result and theories to improve training effectiveness.

Survey	CPO	
	M	Delta
Pre	3.40	
Post	4.34	0.94

APPENDIX E

QUALITATIVE SELECTION CRITERIA

Four Chiefs from the 40 member quantitative sample were examined in-depth with case study qualitative interviews. This appendix will examine the selection of the four Chiefs. The four Chiefs were separated into two categories based on the following criteria: Chiefs with no significant performance variation and Chiefs with significant positive performance variation. Specifically, the final two Chiefs for the no significant performance variation were selected because they had the least amount of change in performance after CPOACAD graduation. While, the two significant variation Chiefs were not selected because they had the largest increase in performance after graduation, but because their performance increase mirrored the significant increase found in the quantitative study.

The criteria for the no significant performance variation sample consideration included those CPOACAD graduates who had a Wilks' Lambda significance of more than 0.05, a total mean score delta between the year before graduation and the year after graduation of less than 0.106 and the lowest absolute value in the differences between all four years of the study. A summary was presented after this discussion.

The criteria for the significant positive performance sample variation consideration included those CPOACAD graduates who had a Wilks' Lambda significance of less than 0.05, a total mean score delta between the year before graduation and the year after graduation of greater than 0.106, a total mean score delta between the year after graduation and two- years after graduation of greater than 0.063 and a total mean score delta between the two-years after graduation and three-years after graduation closest to -0.010. A summary was presented in after this discussion.

The parameters defining significant and no significant performance variation were based on the 40 CPOACAD graduate's total mean sample data. The sample data showed an increase in total mean between one year before graduation (1 Yr PRE) and one year after graduation (1 Yr POST) as well as the one year after graduation and two years after graduation (2 Yrs POST). The total mean between two-years after graduation and three years after graduation (3 Yrs POST) showed a very slight decrease in total mean score. The differences for the sample data means are presented in the following table.

Mean Evaluation Totals and Deltas for Sample Chief Petty Officers Enlisted Evaluations

Time	*M*	Delta
1 Yr PRE	5.191	-
1 Yr POST	5.297	0.106
2 Yrs POST	5.360	0.063
3 Yrs POST	5.350	-0.010

The two Chiefs selected to represent the no significant performance deviation sample showed the minimum change within the 40 CPOACAD graduate sample. The two Chiefs selected to represent the significant positive performance deviation sample did not necessarily show the maximum change within the 40 CPOACAD graduate sample. The Chiefs were selected because they showed the maximum change in the first two years following CPOACAD graduation and minimal change in the third year. This change was representative of the 40 CPOACAD graduate samples and deemed more representative than just examining the two Chiefs with the largest change after CPOACAD graduation.

Chief #	Pre1	Delta	Post1	Delta	Post2	Delta	Post3	Tot Delta (abs value)	Wilks Lambda F	Sig
343	4.934	0.694	5.628	0.006	5.634	-1.805	3.829	2.505	49.001	0.000
102	4.292	0.904	5.196	0.089	5.285	0.404	5.689	1.397	37.250	0.000
158	5.625	-0.970	4.655	-0.203	4.452	-0.055	4.397	1.228	32.933	0.000
177	4.351	-0.598	3.753	-0.244	3.509	1.903	5.412	2.745	30.867	0.000
7	4.917	1.154	6.071	-0.786	5.285	0.487	5.772	2.427	29.310	0.000
107	4.851	0.363	5.214	0.839	6.053	-0.019	6.034	1.221	24.279	0.000
200	4.809	0.735	5.544	-0.244	5.300	0.237	5.537	1.216	19.080	0.000
116	5.726	-0.262	5.464	-0.328	5.136	-0.096	5.040	0.686	17.531	0.000
79	5.208	0.113	5.321	0.548	5.869	-0.097	5.772	0.758	12.805	0.000
298	4.642	0.486	5.128	0.214	5.342	-0.472	4.870	1.172	11.402	0.000
185	4.833	1.072	5.905	-0.203	5.702	-0.555	5.147	1.830	10.845	0.000
83	4.517	0.113	4.630	-0.494	4.136	0.820	4.956	1.427	9.968	0.000
190	5.000	-0.387	4.613	0.714	5.327	-0.013	5.314	1.114	9.145	0.000
42	5.017	0.611	5.628	0.297	5.925	-0.347	5.578	1.255	8.736	0.001
375	5.184	-0.179	5.005	0.715	5.720	-0.264	5.456	1.158	6.878	0.002
300	5.417	0.237	5.654	0.173	5.827	-0.471	5.356	0.881	6.730	0.002
138	4.833	0.655	5.488	-0.244	5.244	0.237	5.481	1.135	6.410	0.003
81	5.547	0.024	5.571	0.131	5.702	-0.680	5.022	0.835	5.842	0.005
296	4.417	-0.012	4.405	0.422	4.827	-0.013	4.814	0.447	5.764	0.005
93	5.250	-0.470	4.780	0.422	5.202	-0.180	5.022	1.073	5.309	0.007
23	5.601	-0.179	5.422	-0.244	5.178	0.570	5.748	0.993	5.122	0.008
231	4.105	0.508	4.613	-0.577	4.036	0.070	4.106	1.155	4.637	0.012
43	5.267	-0.264	5.003	-0.036	4.967	-0.513	4.454	0.813	4.534	0.013
350	5.667	-0.304	5.363	0.256	5.619	0.153	5.772	0.713	4.124	0.019
50	5.330	-0.283	5.047	0.256	5.303	-0.180	5.123	0.719	4.082	0.020
25	5.292	0.196	5.488	0.214	5.702	-0.013	5.689	0.424	3.857	0.024
191	5.417	-0.012	5.405	0.214	5.619	0.195	5.814	0.421	3.538	0.032
150	5.333	0.155	5.488	0.214	5.702	-0.388	5.314	0.757	3.450	0.040
132	5.517	-0.223	5.294	0.381	5.675	-0.013	5.662	0.617	3.153	0.046
118	5.434	0.071	5.505	-0.411	5.094	0.321	5.415	0.803	2.948	0.056
254	4.934	0.152	5.086	-0.327	4.759	0.403	5.162	0.882	2.932	0.057
237	5.500	-0.345	5.155	0.339	5.494	0.070	5.564	0.754	2.662	0.074
72	5.458	0.155	5.613	0.047	5.660	0.237	5.897	0.439	2.660	0.074
240	5.250	0.155	5.405	0.255	5.660	-0.138	5.522	0.548	2.242	0.113
172	5.684	0.277	5.961	-0.202	5.759	-0.097	5.662	0.576	2.155	0.124
24	6.292	-0.262	6.030	-0.078	5.952	0.153	6.106	0.493	1.672	0.203
60	5.625	0.071	5.696	0.173	5.869	-0.263	5.606	0.507	1.605	0.218
201	5.583	0.238	5.821	-0.035	5.786	0.070	5.856	0.343	1.401	0.270
286	5.333	-0.053	5.280	0.131	5.411	0.070	5.481	0.254	0.487	0.695
196	5.625	-0.054	5.571	0.089	5.661	-0.097	5.564	0.240	0.306	0.820

Below data are the mean for all the Chiefs in the Quantitative section of the study

| Mean | 5.191 | 0.106 | 5.297 | 0.063 | 5.360 | -0.010 | 5.350 | 0.179 | 13.252 | 0.000 |

Chiefs minimally affected by CPOACAD (Looking for flat line performance)

1. Must have a Wilks' Lambda significance of greater than 0.05
(reduced field to 11 Chiefs)
2. Must have a Delta between PRE1 and POST1 of less that 0.106 (Mean diff for tot. sample)
(reduced field to 4 Chiefs)
3. Lowest absolute value for deltas between all years.
(286 and 196 selected)

	PRE1	POST1	POST2	POST3
286	**5.333**	**5.280**	**5.411**	**5.481**
196	**5.625**	**5.571**	**5.661**	**5.564**
Sample Mean	5.191	5.297	5.360	5.350
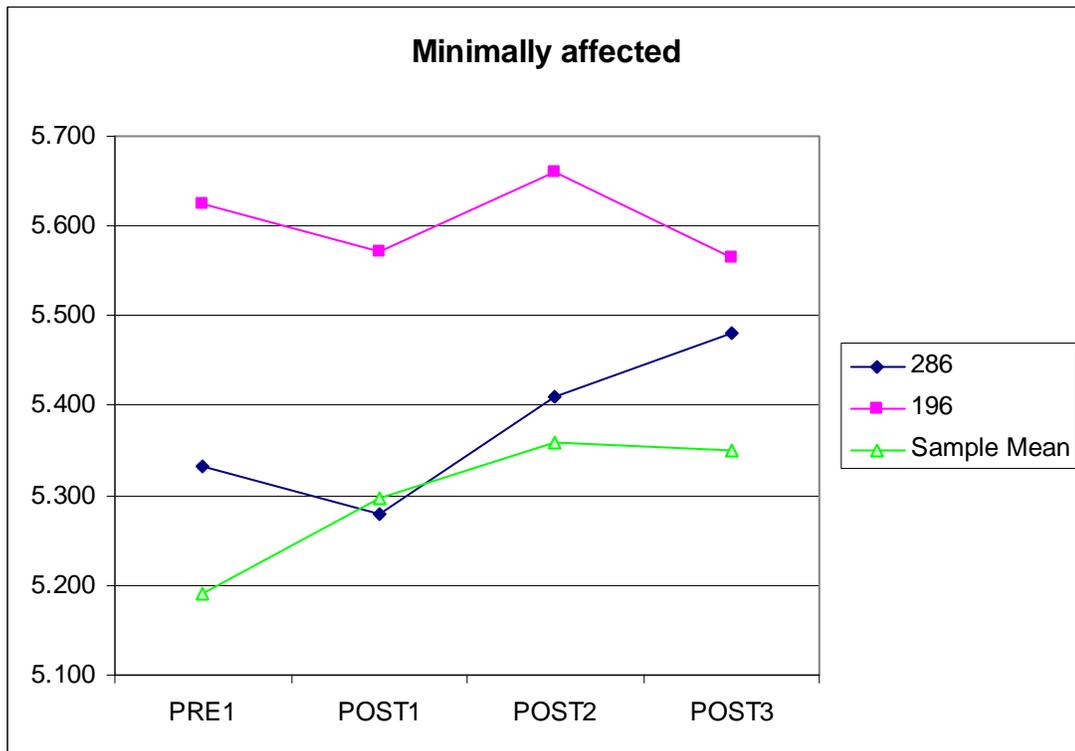
Chiefs significantly affected by CPOACAD
(Looking for growth during first two years then level off)

1. Must have a Wilks' Lambda significance of 0.05 or less
(reduced field to 29 Chiefs)
2. Must have a Delta between PRE1 and POST1 of greater that 0.106
(reduced field to 15 Chiefs)
3. Must have a Delta between POST1 and POST2 of greater that 0.063
(reduced field to 7 Chiefs)
4. Performance must level off between POST @ and POST3. Closest delta to -0.010.
(107 and 25 selected)

	PRE1	POST1	POST2	POST3
107	**4.851**	**5.214**	**6.053**	**6.034**
25	**5.292**	**5.488**	**5.702**	**5.689**
Sample Mean	5.191	5.297	5.360	5.350
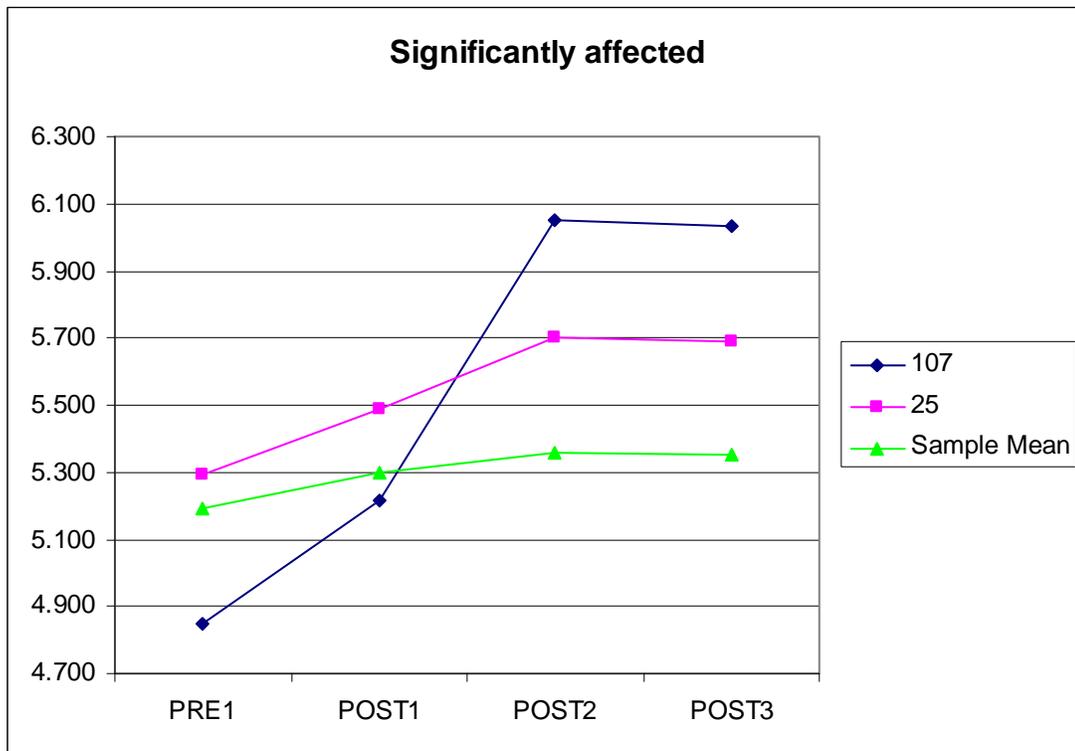
APPENDIX F

MASTER, SENIOR AND CHIEF PETTY OFFICER ENLISTED EVALUATION
FORM (CG-3788C)

Organizational Responsibilities [*Performance Factor*] (9)

PROFESSIONAL/SPECIALTY KNOWLEDGE
The degree to which this member demonstrated technical competency and proficiency for rating or special assignment.

___1

___2 Marginal knowledge of rating or special assignment. Experienced difficulty in demonstrating proficiency. Failed to maintain qualifications. Did not demonstrate knowledge of policies or procedures.

___3

___4 Competent member on technical issues. Had total understanding of routine concepts of rating or special assignment. Demonstrated in-depth knowledge of policies and procedures.

___5

___6 Consistently demonstrated outstanding knowledge and skills. Answers and recommendations typically flawless. Made significant contributions to unit's performance.

___7

PROFESSIONAL DEVELOPMENT
The degree to which the member continued to professionally develop, acquire new skills, or improve current skills and knowledge.

___1

___2 Did not use opportunities to further develop or demonstrate rating or special assignment skills and knowledge. Lacked either motivation or aptitude in furthering knowledge.

___3

___4 Used available opportunities to increase knowledge and further develop skills. Sought increased responsibility. Showed professional growth through education and training.

___5

___6 Outstanding role model. Enthusiastically sought opportunities, on or off duty, for personal and professional development. Rapid personal growth. Significant achievements.

___7

ADMINISTRATIVE ABILITY
The degree to which this member completed written work, including correspondence and reports.

___1

___2 Did not perform administrative functions of job adequately. Correspondence, reports, and other paperwork sometimes incomplete or improperly formatted. Own work, or that of subordinates, often-needed correction.

___3

___4 Correspondence, reports, and other paperwork prepared in accordance with current Coast Guard directives. Good quality and properly formatted. Own work, and that of subordinates, rarely needed correction.

___5

___6 Expertly managed administrative functions of job. Completely familiar with directives and instructions. Consistently provided paperwork in a timely, complete, and accurate fashion. Work consistently without error or in need of correction. Work from subordinates met same high standards in quality and quantity.

___7

ORGANIZATION

The degree to which this member identified what needed to be done, set priorities, and kept supervisor informed.

___1

___2 Sometimes needed help in prioritizing routine tasks. Usually unprepared. Did not follow policies or standard procedures. Occasionally late informing supervisor of changing situations or completion of tasks.

___3

___4 Quickly recognized difference between routine and time critical tasks; organized work accordingly. Adept in use of standard procedures. Took positive action to determine job priorities. Provided factual and accurate reports to supervisor on all aspects of work.

___5

___6 Anticipated and planned accordingly. Accurately set priorities for all assigned tasks and consistently completed work in order of importance. Consistently kept supervisor informed of progress/problems, results, and new work efforts.

___7

USING RESOURCES

The degree to which this member used personnel and material resources.

___1

___2 Occasionally wasted materials or unable to properly and effectively use tools, publications, and equipment. Sometimes wasted time. Did not delegate well. Often failed to follow-up.

___3

___4 Successfully used available resources, personnel, and material. Delegated well. Made good use of available personnel and their skills. Materials, tools, equipment, and publications effectively used. Followed-up to ensure tasks properly completed.

___5

___6 Expertly used all resources. Personnel and their skills maximized to capacity. Sought out better ways to accomplish tasks. Used sound management practices and achieved optimum efficiency and effectiveness.

___7

MONITORING WORK
The degree to which this member monitored status of work and met deadlines.

___1

___2 Occasionally late; sometimes needed prodding to finish tasks by deadlines. Missed deadlines without justification. Often lax in knowledge of status of assigned jobs. Did not monitor tasks.

___3

___4 Assigned tasks completed on time. Carefully monitored progress of assignments. Recognized when change was necessary and directed same.

___5

___6 Typically completed work ahead of schedule. Consistently aware of status of all tasks in progress. Consistently followed-up to ensure all details were completed. Quickly adapted work schedules to new conditions as necessary.

___7

SAFETY AND OCCUPATIONAL HEALTH
The degree to which this member identified, evaluated, and managed risks to personnel.

___1

___2 Failed to adequately identify and protect personnel from hazards. Did not follow standard procedures in risk identification and assessment of hazards. Safety not a high priority; sometimes allowed personnel to disregard safety procedures or to work without safety equipment.

___3

___4 Pro-active in protecting personnel from hazardous conditions. Used appropriate support program resources to develop protective measures. Followed-up and ensured that identified hazards were removed. Ensured that safe operating procedures were followed for all aspects of work. Ensured that required safety equipment was available and used.

___5

___6 Contributed a leadership role in enforcement of safety and occupational health regulations. Demonstrated a significant commitment towards the identification and removal of hazards to personnel. Consistently stressed safety. Required others to be alert to, and correct, unsafe conditions and risks to personnel.

___7

STAMINA
The degree to which this member thought and acted effectively under conditions that were stressful and mentally and physically fatiguing.

___1

___2 Physically/mentally tired under stress or during periods of extended work. Resisted putting in necessary overtime. Productivity or safety dropped in stressful situations.

___3

___4 Handled stressful situations well. Worked extra hours as required to get the job done. Productivity and safety were adequate.

___5

___6 Excelled in stressful situations. Willingly worked overtime when necessary to get the job done. No loss of productivity or safety during stressful situations or extended work hours.
___7

COMMUNICATING
The degree to which this member listened, spoke, and expressed thoughts clearly and logically.
___1
___2 Used inappropriate language or mannerisms. Failed to listen carefully. Expressed thoughts lacked clarity. Disorganized in verbal presentations.
___3
___4 Used appropriate language without distracting mannerisms. Verbal presentations were all well organized. Listened attentively.
___5
___6 Consistently displayed an outstanding ability in verbal expressions. Spoke with clarity. Presentations were typically well organized and kept audiences' attention.
___7

Leadership Abilities [*Leadership Factors*] (7)

DIRECTING OTHERS
The effectiveness of this member in influencing and guiding others in the completion of tasks.
___1
___2 Had difficulty in directing and influencing others effectively. Did not instill confidence in subordinated and others. Did not manage difficult situations. Did not establish and maintain standards of quality or quantity for work produced.
___3
___4 Guided and reviewed work of others to ensure that high work standards were maintained. Kept self and other motivated towards completion of work. A leader who influenced and earned the respect of others.
___5
___6 Achieved superior results in spite of unanticipated conditions or difficult situations. Demonstrated ability to define and carry out assignments or projects by achieving results not normally attainable. Ensured that each member knew their role in organization. A strong and respected leader.
___7

WORKING WITH OTHERS
The degree to which this member promoted a team effort in accomplishing work goals.
___1
___2 Exerted little or no influence over group resulting in disorganized efforts. Allowed conflicts to go on between group members. Disregarded the ideas of others. Not a team player.

___3

___4 Promoted cooperation between team members. Ensured workload equitably distributed. Resolved conflicts quickly and stayed focused on team goals. Encouraged other team members to contribute ideas.

___5

___6 Outstanding team leader that excelled in getting all to work together. Group consistently effective and productive in achieving goals. Skillfully used knowledge of group dynamics to achieve maximum performance.

___7

DEVELOPING SUBORDINATES

The extent this member used coaching, counseling, training, and education to increase the knowledge and performance of subordinates or others. The degree of this member's sensitivity and responsiveness to the goals and achievements of others.

___1

___2 Contributed little to training and educational programs to develop subordinates or others. Accepted marginal or unsatisfactory performance or behavior. Failed to provide timely or constructive feedback. Rarely acknowledged or recognized subordinates' or others' accomplishments or achievements.

___3

___4 Took active role in the development of subordinates and others. Provided opportunities for training and education which supported professional growth. Performance feedback was timely and constructive.

___5

___6 Actively promoted a commitment to learning and personal development. Consistently shared knowledge with subordinates and others by planning and conducting training. Initiated appropriate and timely recognition of subordinates and others.

___7

RESPONSIBILITY

This members ability and willingness to enforce standards on self, subordinates, and others; to support policies and decisions; and to hold one's self accountable for own and subordinates' actions.

___1

___2 Provided little or no support for policies and decisions. Unwilling to hold self or subordinates accountable for actions. Lax at enforcing military rules and regulations.

___3

___4 Required self, subordinates, and others to conform to military rules and regulations. Enthusiastically supported policies and decisions of seniors. Initiated appropriate administrative and disciplinary action when necessary. Enforced standards uniformly.

___5

___6 Consistently held self, subordinates and other accountable for performance and behavior. Actively persuaded other to support policies and decisions even if unpopular. Outstanding leader that aggressively worked to ensure standards were uniformly enforced.

___7

EVALUATIONS

The extent to which this member conducted, or required others to conduct, evaluations that were objective, accurate, fair, timely, and consistent with actual performance. Evaluations treated as an ongoing process vice an event.

___1

___2 Written or oral reports on the performance of self, subordinates, or others were typically submitted late, incomplete, or inconsistent with actual performance. Provided little or no counseling to subordinates.

___3

___4 Provided complete and accurate reports, written or oral, on self, subordinates, or others. Performance and behavior properly evaluated against the written standards. Supporting documentation, when required, contained specific and descriptive observations. Subordinates and other received timely and constructive counseling.

___5

___6 Written or oral reports consistently timely and clearly measured performance against written standards. Written supporting documentation, if necessary, was complete, accurate, specific, and supported numerical evaluations. Did not accept inaccurate reports from others.

___7

WORK-LIFE SENSITIVITY/EXPERTISE

The acquisition and use of both knowledge and skills to enhance the overall quality of life and general welfare of CG members and their families. The member's interest in and level of support for CG Work-life and related programs regardless of billet.

___1

___2 Failed to recognize importance of Work-Life in executing responsibilities to CG and personnel. Contributed to imbalance. Does not incorporate for Work-Life issues into management practices. Avoided opportunities to develop expertise including acquisition of essential knowledge or skills. Lacked basic understanding of principles involved and/or knowledge of organization.

___3

___4 Knowledgeable on Work-Life principles, issues, and resources. Translated that knowledge into effective action for benefit of unit and personnel. Showed appreciation for significance of Work-Life to Coast Guard recruiting, retention, and productivity.

___5

___6 Superior in-depth knowledge of Work-Life program and its purpose. Took an active role in facilitating solutions to problems experienced by CG members and their families. Promoted flexibility in achieving balance between unit missions and the needs CG members and their families. Actively pursued greater knowledge and understanding of Work-Life by self, CG members, and their families.

___7

SETTING AN EXAMPLE

This member's ability and willingness to seek responsibility and display positive judgment in making decisions.

___1

___2 Projected an apathetic attitude towards assigned work, the Coast Guard, unit policies, or decisions of seniors. Sometimes indecisive or unwilling to make necessary decisions for areas or responsibility. Set poor example by lack of action. Frequently made bad decisions.

___3

___4 Self-starter. Sought opportunities to make decisions or recommendations for areas of responsibility. Influenced others by projecting a positive and enthusiastic attitude. Supported methods of improving performance of unit or Coast Guard.

___5

___6 Outstanding role model. Consistently sought additional responsibility. Made excellent decisions and recommendations based on experience and relevant information. Aggressively promoted acceptance of all work. Skillfully persuaded others that all work, including unpleasant assignments, contributed to achieving unit mission.

___7

Military Protocol [*Military Factor*] (2)

MILITARY BEARING
The extent to which this member appeared neat, smart, and well groomed in uniform; and set standards for subordinates.

___1

___2 Unable or unwilling to consistently appear net, smart, and well groomed. Failed to maintain uniform or grooming standards. Performance of subordinates was marginal or unacceptable.

___3

___4 Squared away member. Demonstrated great care in maintaining and wearing uniform. Excellent grooming; hair groomed to standards; if worn, beard or moustache also neat and properly trimmed. Presented a physically trim appearance.

___5

___6 Superlative member. Clearly set high standards for uniform and grooming excellence. Inspired similar standards in others. Performance of subordinates was exceptional.

___7

CUSTOMS AND COURTESIES
The extent to which this member conformed to military traditions, customs, and courtesies; and set standards for subordinates' performance and behavior.

___1

___2 Occasionally failed to conform to military traditions, or customs and courtesies. Performance of subordinates was marginal or unacceptable.

___3

___4 Maintained military formality, precedence, courtesies, and respect to rank and privilege; required same of subordinates.

___5

___6 Exemplified the finest traditions of military customs, courtesies, and protocol in all situations. Inspired similar standards in others. Performance of subordinates was exceptional.
___7

Professionalism [*Professional Qualities Factor*] (6)

HEALTH AND WELL-BEING
The degree to which this member exercised moderation in the use of alcohol. The degree to which this member maintained weight standards.
___1
___2 Failed to meet minimum standards of sobriety or weight control.
___3
___4 Maintained weight standards. Used alcohol discriminately or not at all; job performance not affected. Held self and subordinates accountable in meeting minimum standards, on and off duty.
___5
___6 Consistently demonstrated a significant commitment, beyond setting an example, on and off duty, to the well-being of self and subordinates.
___7

INTEGRITY
The degree to which this member demonstrated the qualities of honesty and fair-mindedness in personal relationships and actions, on and off duty.
___1
___2 Untrustworthy; shaded the truth. Took advantage of situations for personal gain.
___3
___4 Honest and truthful. Demonstrated strong moral character. Was fair-minded and trustworthy.
___5
___6 Consistently adhered to highest standards of honesty, truthfulness and integrity. Required same of others. Strong moral principles and convictions as demonstrated by personal actions.
___7

LOYALTY
The degree to which this member was committed to the Coast Guard, unit, supervisor, and shipmates.
___1
___2 Sometimes complained or otherwise outwardly showed lack of commitment to Coast Guard and its missions, unit, or well-being of others.
___3
___4 Exhibited pride in being part of Coast Guard. Supported decisions of command. Loyal to seniors, shipmates, and subordinates. Backed subordinates. Was committed to doing the best job possible.
___5

___6 Personal actions consistently demonstrated a strong dedication to duty, Coast Guard, and unit. Extremely loyal and supportive of seniors, shipmates, and subordinates.
___7

RESPECTING OTHERS
The degree to which this member cooperated with other people or units to achieve common goals.
___1
___2 Showed disregard for feelings of others through inappropriate comments or actions. Did not promote a team effort.
___3
___4 Treated others in a courteous, thoughtful, and respectful manner. Worked comfortably with others of all ranks and positions.
___5
___6 Worked to achieve a high state of mutual respect with all. Actively encouraged sensitivity to and understanding of the attitudes, perceptions, and ideas of others. Outstanding cooperation with others.
___7

HUMAN RELATIONS
The degree to which this member fulfilled the letter and spirit of the Coast Guard's Human Relations/Sexual Harassment policy in personal relationships and actions.
___1
___2 Displayed discriminatory tendencies toward others based on their religion, age, sex, race, marital status, or ethnic background. Allowed bias to influence appraisals or the treatment of others. Was disrespectful or used position to harass others. Did not hold self or subordinates accountable for their human relations/sexual harassment responsibilities.
___3
___4 Held self and subordinates accountable for living up to the spirit of the Coast Guard's Human Relation/Sexual Harassment statements. Treated others fairly and with dignity without regard to their religion, age, sex, race, marital status, or ethnic background. No bias in work or appraisal actions. Personal actions contributed to unit morale.
___5
___6 Demonstrated, through leadership, a strong personal commitment to fair and equal treatment of others in all situations, without regard to religion, age, sex, race, marital status, or ethnic background. Actively campaigned against prejudicial actions or behavior by others. Made noteworthy contributions to prevent and eliminate prejudicial actions in the work place.
___7

ADAPTABILITY
The degree to which this member adjusted and managed change.
___1

___2 Occasionally had difficulty in adjusting to changes in job, policies, procedures, and environment. Effectiveness impaired by changes to routine.

___3

___4 Took changes in stride. Adapted quickly to changes. Maintained effectiveness despite disruptions to work routine.

___5

___6 Managed change and adjusted easily to major or last minute changes in job, policies, procedures, and environment. Very flexible. Maintained a high degree of effectiveness.

___7

APPENDIX G

PERMISSION TO EVALUATE 1999 GRADUATES OF THE UNITED STATES
COAST GUARD CHIEF PETTY OFFICER ACADEMY

**U.S. Department of
Homeland Security**

**United States
Coast Guard**

Superintendent
U. S. Coast Guard Academy(I)
37 Mohegan Avenue
New London, CT 06320

Staff Symbol: I
Phone: 860-701-6393
Fax: 860-701-6811
Email: Rdesh@cga.uscg.mil

1500
May 27, 2005

Andrews University
100 Old US 31
Berrien Springs, Michigan

Dear Sir or Madam:

LT Chad A. Long has requested my permission to study the 1999 graduates of the Chief Petty Officer Academy. I understand his study, "An Evaluation of Performance as it relates to Leadership Training in the United States Coast Guard", and fully support his efforts.

LT Long has my permission to conduct the study. His efforts will be beneficial to the unit and the United States Coast Guard as a whole. I look forward to the results of his work.

For questions concerning this letter, I can be contacted at (860) 701-6393.

Sincerely,

CAPT R. L. Desh
Director, Leadership Development Center
U.S. Coast Guard

APPENDIX H

INFORMED CONSENT FORM

Andrews ◊ University
School of Education

Informed Consent
An Evaluation of Performance as it Relates to Leadership Training in the United States
Coast Guard.

Dear Chief, Senior Chief or Master Chief,

I am asking you to take time out of your busy schedule to participate in a very important
(Coast Guard Chief Petty Officer Academy Sponsored) research project on CPOA
influenced performance increases. You have been identified as a 1999 graduate of the
Chief Petty Officer Academy. If this is in error, please reply back to me with your
correct graduation date, or lack of graduation.

The purpose of my doctoral research is to generate hard evidence on the performance
benefits of leadership training. The study will examine enlisted performance evaluations
from 1996 to 2002 in attempt to determine if graduation from the CPOA affects an
individual's performance.

I would like your permission to use your enlisted performance evaluation information
from 1996 to 2002. If you agree to participating in this study your performance data will
be confidentially recalled from Direct Access. All that you would need to do is reply to
this e-mail stating, "**I would like to participate in the study**."

I can not stress how valuable your information is to this research. Should you have any
questions or concerns, please do not hesitate to contact me. Thank you for your
participation.

Chad A. Long
Lieutenant, USCG
Group/ Air Station Corpus Christi, TX
(361) 438-2172
Clong@airstacorpuschristi.uscg.mil

Participation
Your participation in this study is voluntary; you may decline to participate without
penalty. If you decide to participate, you may withdraw from the study at anytime
without penalty. If you withdraw from the study before data collection is completed your
data will be returned to you or destroyed. Replying positively to this e-mail message
implies "Informed Consent".

Risks
Participation in this research should pose no risk to the subjects.

Benefits
This research will greatly further the body of knowledge on leadership training. The results will be presented in a dissertation through Andrews University.

Confidentiality
Information from the study will be kept confidential. Data will be stored securely and will be made available only to persons conducting the study unless participants specifically give permission in writing to do otherwise. No reference will be made in oral or written reports which could link participants to the study.

Contact
If you have questions at any time about the study or the procedures used in this study, you may contact the researcher advisor at:
Dr. Erich Baumgartner
Dissertation Advisor
baumgart@andrews.edu
(269) 471-2523

APPENDIX I

COMMANDANT INSTRUCTION 1500.15F
CHIEF PETTY OFFICER ACADEMY

U.S. Department of Homeland Security

United States Coast Guard

Commandant
United States Coast Guard

2100 Second Street, S.W.
Washington, DC 20593-0001
Staff Symbol: G-WTL
Phone: (202) 267-2441
Fax: (202) 267-4610
Email: tcary@comdt.uscg.mil

COMDTINST 1500.15F
7 APRIL 2003

COMMANDANT INSTRUCTION 1500.15F

Subj: CHIEF PETTY OFFICER ACADEMY (CPOACAD)

Ref: (a) Personnel Manual, COMDTINST M1000.6 (series)
  (b) Training and Education Manual, COMDTINST M1500.10 (series)
  (c) Allowable Weight Standards for Coast Guard Military Personnel, COMDTINST M1020.8 (series)

1. <u>PURPOSE</u>. To establish policy and procedures for attending the Chief Petty Officer Academy.

2. <u>ACTION</u>. Area and district commanders, commanders of maintenance and logistics commands, commanding officers of headquarters units, assistant commandants, Chief Counsel and special staff offices at Headquarters shall ensure the contents of this CG CPO Academy Instruction are given widest distribution. Internet release authorized

3. <u>DIRECTIVES AFFECTED</u>. CG Chief Petty Officers Academy, COMDTINST 1500.15E is cancelled.

4. <u>BACKGROUND</u>.

   a. The Chief Petty Officer Academy Course is designed to assist newly advanced Chief Petty Officers (CPO) transition into the Chief's community by developing the leadership, communication, and administrative skills required to become an effective Chief Petty Officer. The course is held at Coast Guard Training Center, Petaluma, California.

   b. The 33-day course curriculum (12-day Reserve course curriculum) takes into account previous subjects and leadership training acquired throughout one's enlisted career.

   c. The successful transition to CPO depends on both individual effort and the Coast Guard's ability to prepare the member for the new leadership role as a chief petty officer.

DISTRIBUTION – SDL No. 140

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r	s	t	u	v	w	x	y	z
A	2	2	2		2	1	1		1	1		1	1	1	1	1	1		1							
B		8	10	4	12	3	3	9	3	11	10	14	6	15	6		10	10	10			6	35	2	1	1
C	3	2	1	3	3	1	1	1	1		1	2	1	5	2	1	1	1	2	1	1	1	1	1	1	1
D	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1			1
E	1	5					1		2	1	2		2	2		2		1	1							
F																	1	1	1							
G																										
H																										

NON-STANDARD DISTRIBUTION:

COMDTINST 1500.15F

d. A general course outline follows:

Topic	General Description
SELF	Myers-Briggs Type Indicator (MBTI); Learning Style Inventory; Increasing Human Effectiveness; College Level Examination Program (CLEP); Educational Assessment; Wellness/Nutrition; Ropes; Global Ethics
CO-WORKERS	Diversity; Leadership; Motivation; Coaching; Counseling; Facilitation/Team Building; Networking; Generations
ORGANIZATION	Systems Thinking; Change Management; Unit Briefs; Systems and Leadership Case Studies, Partnerships; Briefings by Headquarters; Risk Management
COMMUNITY	Community-service Project
REFLECTION	Learning Journal; Leadership Paper; Case Study Briefing

e. The tropical blue long uniform with combination cap is prescribed year round. Service Dress Blue Bravo is required for graduation and other functions. The windbreaker and sweater are optional.

5. POLICY AND PROCEDURES.

a. In accordance with reference (a) chapter 5-C, all E-7's advanced on or after 1 January 1999 must successfully complete the CPOACAD or a Department of Defense Senior Enlisted Academy in order to be eligible to participate in the E-8 advancement process. Our long term goal is that all E-7s complete this critical senior enlisted professional development course for their benefit, personally and professionally, the rest of their career.

b. In accordance with reference (b) chapter 2.B.1.a.4.a, personnel who attend the CPOACAD must have at least one year of service remaining on their current enlistment or period of active service upon graduation.

c. All newly advanced CPOs should review course dates and determine the dates that best fit their unit and personal needs. Class A and C Schools Schedules, COMDTNOTE 1540, publishes a listing of convening dates for active and reserve CPO Academy classes. The Training Quota Management Center (TQC) publishes regular updates to COMDTNOTE 1540 via message and on TQC website: http://www.uscg.mil/hq/tqc. After selecting dates, members must submit an electronic training request via Coast Guard Human Resource Management System (CGHRMS) or send in a Short-Term Training Request (STTR) CG-5223, via their Commanding Officer/Officer-In-Charge to Commandant (G-WTL-2). The request should list a minimum of two preferred attendance dates, in rank order. Each request will remain valid for a six-month period from the date Commandant (G-WTL-2) receives it.

d. If member does not attend the CPO Academy during that six-month period, a new request must be submitted. Members under Permanent Change of Station (PCS) orders must have their requests approved by their reporting unit. Members are responsible for keeping their request up to date.

e. Members who have submitted a STTR for the CPO Academy should visit the CPO Academy web site to view selected class slates at http://www.uscg.mil/hq/tcpet/cpoa to see which class they are scheduled to attend. The slates will be updated twice monthly. If the requested classes have full slates, the member will be placed on the course wait list in CGHRMS.

f. Members who receive Temporary Duty (TDY) orders for CPOACAD and subsequently wish to cancel for purely personal reasons will not be eligible to reapply for a one-year period. Urgent operational needs and personal emergencies will be considered on a case-by-case basis after consulting with the member's command. Decisions by program management are final.

g. In accordance with reference (c), commands are responsible to ensure members are within maximum allowable weight standards prior to execution of orders. Students will be weighed upon arrival at the CPOACAD. Members found not in compliance may be disenrolled and immediately returned to their respective unit

h. Members who fail to submit a request will **not** be contacted by Commandant (G-WTL-2). Failure to attend the CPOACAD will result in delaying advancement eligibility opportunities, as well as negatively impact unit and service leadership needs.

i. Due to CG-Wide high operational tempo (OPTEMPO) and the difficulty for many personnel to obtain a timely quota for this advancement requirement, E-6's above the advancement cutoff may also submit a training request to attend the CPO Academy. The request must specify desired course dates in line with the member's placement on the advancement list. Those E-6's above the cut who are selected by COMDT (G-WTL-2) to attend the CPO Academy must obtain authorization for frocking from CG Personnel Command-epm-2 before orders will be issued. CG Personnel Manual Chapter 5-C.39.a is the governing instruction for frocking policy. Normally, CGPC-epm-2 will authorize frocking to attend the CPOA for a member who would have already been frocked for their next assignment to clearly establish their position or stature and/or to facilitate their ability to carry out their duties such as an Officer in Charge (OIC), Executive Petty Officer (XPO) Engineering Petty Officer (EPO) or as an Independent Supervisor of a Electronic Support Detachment (ESD) or a servicing personnel reporting unit (PERSRU). In these cases the class convening shall be within three months of the PCS rotation period. Frocking of members to attend CPOA will only be out of necessity where it is in the best interests of the service and it is anticipated that due to the new PCS leadership position that the member will now be assigned to, it would normally be difficult for the member to attend the 33 day course while at the new unit.

j. Commandant (G-WTL-2) shall schedule members in the following of priority:

    1) Those advanced to E-7 on or after 01 January 1999.

    2) E-6's above the cutoff for E-7 advancement.

COMDTINST 1500.15F

      3) E-7's who were advanced prior to 1 Jan 1999.

  k. International students from abroad may occasionally attend the CPOACAD. Quotas for these students will be coordinated between Commandant (G-WTL-2) and Commandant (G-CI) annually.

  l. Other military service personnel may attend the CPO Academy as agreed to by official Memorandum of Understanding (MOU).

  m. Reservists can apply for either active or reserve CPO Academy classes scheduled. Reserve CPO Academy classes will normally be scheduled during the summer months. Because of this, the advancement prerequisite to complete the CPO Academy by 30 June in order to compete on the Reserve service wide exam is extended to 31 July. Reserve personnel applying for an Active duty class will have equal priority as active duty personnel. Active duty personnel can only apply for the Active duty classes.

6. <u>RESPONSIBILITIES</u>.

  a. The ultimate goal of the CPOACAD is to provide the critical leadership skill sets needed by all CPOs. This will subsequently be a catalyst for continued professional and personal development.

  b. The key to successfully completing the CPO Academy is an individual's willingness to participate fully in both classroom and physical readiness training. Failure to successfully complete the course for cause will result in the Director, Leadership Development Center forwarding a letter to the member's command for inclusion in their permanent record, and can cause up to a two-year wait to reapply.

  c. Each command is expected to support the timely attendance of eligible Chief Petty Officers to the CPO Academy for professional growth and advancement opportunities.

7. <u>ENVIRONMENTAL ASPECT and IMPACT CONSIDERATIONS</u>. Environmental considerations were examined in the development of this Instruction and have been determined to be not applicable.

8. <u>FORMS AVAILABILITY</u>. Short-Term Training Requests, CG Form 5223, is available in "Jet Form Filler" on Standard Workstation III (SWS-III).

/s/ R. J. Papp, Jr./
Director of Reserve and Training

APPENDIX J

DETAILED STATISTICAL TABLES FOR INDIVIDUAL ENLISTED EVALUATION
CATEGORIES

A one-way repeated measure ANOVA was conducted with the factor being time interval since the year prior Chief Petty Officer Academy Graduation and the dependent variable being the mean enlisted evaluation score category, corrected for population inflation.

Leadership Abilities Categories

Directing Others

Year	*M*	*SD*
1 Yr PRE	5.19	0.80
1 Yr POST	5.39	0.99
2 Yrs POST	5.45	0.75
3 Yrs POST	5.48	0.85

Wilks' $\Lambda = 0.30$, $F(3, 37) = 1.25$, $p = 0.30$, Effect size $= 0.39$.

Working with Others

Year	*M*	*SD*
1 Yr PRE	5.20	0.73
1 Yr POST	5.31	0.96
2 Yrs POST	5.45	0.78
3 Yrs POST	5.45	0.82

Wilks' $\Lambda = 0.90$, $F(3, 37) = 1.39$, $p = 0.26$, Effect size $= 0.28$.

Developing Subordinates

Year	*M*	*SD*
1 Yr PRE	5.36	0.84
1 Yr POST	5.44	0.68
2 Yrs POST	5.60	0.87
3 Yrs POST	5.63	0.79

Wilks' $\Lambda = 0.93$, $F(3, 37) = 0.96$, $p = 0.42$, Effect size $= 0.28$.

Responsibility

Year	*M*	*SD*
1 Yr PRE	5.26	0.88
1 Yr POST	5.44	0.79
2 Yrs POST	5.50	0.86
3 Yrs POST	5.43	0.76

Wilks' $\Lambda = 0.93$, $F(3, 37) = 0.90$, $p = 0.45$, Effect size $= 0.22$.

Evaluations

Year	M	SD
1 Yr PRE	5.07	0.78
1 Yr POST	5.24	0.77
2 Yrs POST	5.13	0.82
3 Yrs POST	5.03	0.79

Wilks' $\Lambda = 0.95$, $F(3, 37) = 0.66$, $p = 0.58$, Effect size = 0.08.

Work Life

Year	M	SD
1 Yr PRE	4.77	0.76
1 Yr POST	5.03	0.84
2 Yrs POST	5.13	0.85
3 Yrs POST	5.05	0.83

Wilks' $\Lambda = 0.87$, $F(3, 37) = 1.86$, $p = 0.15$, Effect size = 0.39.

Setting the Example

Year	M	SD
1 Yr PRE	5.12	0.81
1 Yr POST	5.29	0.96
2 Yrs POST	5.48	0.93
3 Yrs POST	5.43	0.70

Wilks' $\Lambda = 0.83$, $F(3, 37) = 2.50$, $p = 0.07$, Effect size = 0.35.

Professionalism Categories

Health and Well Being

Year	M	SD
1 Yr PRE	4.82	0.76
1 Yr POST	4.96	0.89
2 Yrs POST	4.93	0.86
3 Yrs POST	4.85	0.87

Wilks' $\Lambda = 0.98$, $F(3, 37) = 0.26$, $p = 0.85$, Effect size = 0.09.

Integrity

Year	M	SD
1 Yr PRE	5.49	0.85
1 Yr POST	5.54	0.67
2 Yrs POST	5.40	0.85
3 Yrs POST	5.55	0.52

Wilks' $\Lambda = 0.96$, $F(3, 37) = 0.58$, $p = 0.63$, Effect size = 0.01.

Loyalty

Year	M	SD
1 Yr PRE	5.60	0.74
1 Yr POST	5.56	0.66
2 Yrs POST	5.50	0.70
3 Yrs POST	5.60	0.62

Wilks' $\Lambda = 0.97$, $F(3, 37) = 0.32$, $p = 0.81$, Effect size = -0.06.

Respecting Others

Year	M	SD
1 Yr PRE	5.31	0.65
1 Yr POST	5.44	0.68
2 Yrs POST	5.45	0.67
3 Yrs POST	5.45	0.60

Wilks' $\Lambda = 0.95$, $F(3, 37) = 0.71$, $p = 0.55$, Effect size = 0.21.

Human Relations

Year	M	SD
1 Yr PRE	4.73	0.74
1 Yr POST	4.86	0.66
2 Yrs POST	4.93	0.73
3 Yrs POST	4.80	0.59

Wilks' $\Lambda = 0.95$, $F(3, 37) = 0.62$, $p = 0.60$, Effect size = 0.18.

Adaptability

Year	M	SD
1 Yr PRE	5.67	0.65
1 Yr POST	5.64	0.98
2 Yrs POST	5.70	0.77
3 Yrs POST	5.75	0.68

Wilks' $\Lambda = 0.98$, $F(3, 37) = 0.21$, $p = 0.89$, Effect size = 0.04.

Organizational Responsibilities Categories

Professional/ Specialty Knowledge

Year	M	SD
1 Yr PRE	5.61	0.78
1 Yr POST	5.69	0.76
2 Yrs POST	5.75	0.93
3 Yrs POST	5.73	0.87

Wilks' $\Lambda = 0.98$, $F(3, 37) = 0.30$, $p = 0.83$, Effect size = 0.15.

Professional Development

Year	*M*	*SD*
1 Yr PRE	5.09	0.78
1 Yr POST	5.24	0.80
2 Yrs POST	5.10	0.93
3 Yrs POST	5.28	0.87

Wilks' $\Lambda = 0.94$, $F(3, 37) = 0.72$, $p = 0.54$, Effect size = 0.15.

Administrative Ability

Year	*M*	*SD*
1 Yr PRE	5.11	0.72
1 Yr POST	5.06	0.75
2 Yrs POST	5.18	0.87
3 Yrs POST	5.20	0.82

Wilks' $\Lambda = 0.97$, $F(3, 37) = 0.35$, $p = 0.79$, Effect size = 0.05.

Organization

Year	*M*	*SD*
1 Yr PRE	5.25	0.88
1 Yr POST	5.31	0.84
2 Yrs POST	5.40	0.79
3 Yrs POST	5.40	0.70

Wilks' $\Lambda = 0.96$, $F(3, 37) = 0.53$, $p = 0.66$, Effect size = 0.12.

Using Resources

Year	*M*	*SD*
1 Yr PRE	5.25	0.82
1 Yr POST	5.39	0.75
2 Yrs POST	5.65	0.76
3 Yrs POST	5.53	0.70

Wilks' $\Lambda = 0.76$, $F(3, 37) = 3.84$, $p = 0.02$, Effect size = 0.33.

Monitoring Work

Year	*M*	*SD*
1 Yr PRE	5.14	0.79
1 Yr POST	5.06	0.78
2 Yrs POST	5.40	0.78
3 Yrs POST	5.25	0.68

Wilks' $\Lambda = 0.83$, $F(3, 37) = 2.52$, $p = 0.07$, Effect size = 0.12.

Safety

Year	M	SD
1 Yr PRE	4.71	0.81
1 Yr POST	5.04	0.73
2 Yrs POST	5.08	0.80
3 Yrs POST	4.88	0.76

Wilks' $\Lambda = 0.87$, $F(3, 37) = 1.90$, $p = 0.15$, Effect size $= 0.36$.

Stamina

Year	M	SD
1 Yr PRE	5.37	0.85
1 Yr POST	5.61	0.82
2 Yrs POST	5.63	0.87
3 Yrs POST	5.58	0.75

Wilks' $\Lambda = 0.89$, $F(3, 37) = 1.52$, $p = 0.23$, Effect size $= 0.28$.

Communication

Year	M	SD
1 Yr PRE	5.20	0.77
1 Yr POST	5.16	0.79
2 Yrs POST	5.20	0.74
3 Yrs POST	5.40	0.73

Wilks' $\Lambda = 0.91$, $F(3, 37) = 1.21$, $p = 0.32$, Effect size $= 0.07$.

Military Protocol Categories

Military Bearing

Year	M	SD
1 Yr PRE	5.02	0.67
1 Yr POST	5.09	0.72
2 Yrs POST	5.18	0.77
3 Yrs POST	5.25	0.75

Wilks' $\Lambda = 0.91$, $F(3, 37) = 1.17$, $p = 0.34$, Effect size $= 0.23$.

Customs and Courtesies

Year	M	SD
1 Yr PRE	5.20	0.62
1 Yr POST	5.36	0.60
2 Yrs POST	5.43	0.50
3 Yrs POST	5.35	0.58

Wilks' $\Lambda = 0.90$, $F(3, 37) = 1.32$, $p = 0.28$, Effect size $= 0.29$.

APPENDIX K

CHIEF PETTY OFFICER ACADEMY GRADUATE REFLECTIVE ESSAY

Thirty-One Days of Inspiration

I arrived at the Chief Petty Officers Academy (CPOA) in Petaluma prepared for a rigorous physical and academic challenge. Landscaped in Petaluma's rolling pastures and scenic meadows I was enlightened on myriad levels and learned valuable life long lessons regarding personal wellness, education, and self development.   Not only did I learn these improved leadership and management essentials, I found my experience to profoundly reach beyond the organizational scope and into the very private and reserved depths of my persona. The CPOA challenged who I was not only as an organizational leader, but also as a husband, father, and friend.

My Lifelong Plan for Sustained Wellness
Where I am now, Where I am going, How I plan to achieve the goals

According to my current Personal Wellness Profile, my overall wellness score "needs improving." I am currently deficient in good eating habits, physical fitness, and safety. I will admit I was surprised at the results, especially when compared to results provided less than two-years prior. According to my prior report, I was doing well. I was in the 75-percentile! My initial reaction to the current report was what *had happened*!

I mentally reviewed my answers to the wellness questions hoping to find the discrepancy that would invalidate the harsh reality of my "need for improvement," some *misunderstood concept* or a possible *slip of the pencil* that would provide the *excuse* I desired and the subsequent validation for my disbelief.

Unfortunately, I knew I had developed poor wellness habits, and although a bit hard to accept . . . there it was, in black and white, staring me in the face. I felt threatened by the seemingly cold and insensitive type set that indicated I was *unfit, and on a path toward chronic illness*. As much as I wanted to deny the truth, I knew the report reflected an accurate snap-shot of my overall fitness and "need for improvement."

What I have come to accept is that I need to make some life-style adjustments if I want to enjoy a healthy retirement.

I have always been a wellness minded individual and understand the positive benefits of proper diet, nutrition and a regular fitness regime. Unfortunately, I allowed my eating and fitness habits to backslide.

Over the past two years I have made a concerted effort to work on stress reduction techniques and concentrated on achieving positive personal stress signals, and coping strategies. I have successfully achieved this goal! According to the current Wellness Profile [stress/coping] reports I am in the 75-percentile! Ironically, two-years prior, my stress/coping overview was where my fitness level is today . . . the 25-percentile!

I plan to continue the exercise program I started while attending the Chief Petty Officer Academy. I have adopted aerobic exercise and proper nutrition habits that have had positive affects on my overall attitude and energy levels. I will continue to work out aerobically using the elliptical machine and taking long vigorous walks a minimum of three days per week. This simple fitness plan should be obtainable without much interruptive excuses for not doing so. My eating habits have been influenced by a recent geographical relocation to the south Texas area where the food is high in trans and saturated fats. I am aware of the change and have made committed mental notes to search for alternative foods upon my return. Having been back in California for the past thirty days has rejuvenated my desire to be fit and eat healthy. I discussed these areas with my family and they are supportive and have adopted my desires as family goals. I am confident I will succeed!

My Life Long Plan for Education
The path toward achieving my goal

Higher education has been a major goal of mine since enlisting in the U.S. Coast Guard. I have attended a college or university at every duty station since graduating from boot camp. I have successfully earned my Associate Degree in Liberal Arts from San Diego Mesa College and pursued a Bachelor's of Art Degree in Cultural Anthropology at Humboldt State University. I continued to further my educational pursuits and again graduated from Columbia College with a Bachelor's of Art Degree in General Studies and a minor in Counseling Psychology.

My current plan for continued higher education is to complete graduate school and attain a professional counseling license. I have completed the necessary applications and entrance paperwork to begin studies at Texas A&M University and plan to enroll in the fall semester. Once graduate school is complete, I should be positioned for a transition from the Coast Guard into the public work force where I plan to utilize the Troops to Teacher program offered to retired veterans. I plan to pursue a teaching credential for the state I choose to reside in and serve my local community as an elementary school teacher.

Throughout my adult life, I have demonstrated my commitment and drive toward higher education. I value my strong desire to learn as an intrinsic necessity for my own self-awareness and actualization and strive toward the continued pursuit of knowledge. I have gained valuable tools to enhance my endeavor and through a deliberate, introspective approach, I will continue to grow.

My Life Long Plan for Self Analysis and Self Development
**An introspective approach to self-improvement**

I have recently completed a personality type indicator assessment that revealed my preferred introspective and interactive skill set. I learned that I view my external world intuitively and tend to make decisions based on logic and objective analysis. I tend to rely on cause and effect relationships and trust rationalization to produce the results I require. I learned that as an introvert, I tend to focus my attention inward and tend toward idealistic approaches to situations (Myers-Briggs Type Indicator, 1988).

The Myers-Briggs Personality Type Indicating (MBTI) lesson greatly enforced my confidence as an inspirational leader. That is, I posses the professional competence and essential motivational skills necessary for the continued growth of our organization. I am insightful, and caring, and I absolutely thrive on complex challenges. I naturally excel in devising rational solutions, and I am challenged by concepts that require long-range vision and objective conceptualization. The MBTI lesson provided a perceptive assessment of my personality preference and leadership style and I look forward toward enhancing the challenging new missions delegated to us as part of the Department of Homeland Security.

In regard to my personal life, I have gained a new perspective regarding personal values and priorities.

I have learned that my objective and logical decision-making skills are-at times-used to rationalize my long-work hours and subsequent lost family time. Although, my professional commitment toward organizational success is extremely important, I realize those professional goals and commitments must be derived from a healthy source. That is, only a mentally and physically intact individual can truly succeed in all they set out to accomplish. There must be deliberate temperance and balance if one is to succeed in attaining a truly complete, fruitful life.

In conclusion: During my stay in Petaluma, California, I have been afforded the opportunity to re-evaluate my personal and professional goals & commitments. Amongst those rolling pastures and scenic meadows, I was afforded a generous amount of time to reflect and have experienced a positive rejuvenation for life itself. I have absolutely identified that my family *is* the priority in my life. I have come to understand that rationalizing organizational goals and commitments as excuses to ignore my personal life is un-healthy and will result in the failure of both. Therefore, it is imperative I re-align professional goals & commitments with my innermost values. When I implement this newfound ideology my goals will naturally come to fruition and I will truly be living a balanced and deliberate life . . . a life filled with purpose.

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