EFFECTS OF MENTORSHIP ON SELF-EFFICACY IN NEW FIRE APPARATUS ENGINEERS

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by
Matthew David Brady
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EFFECTS OF MENTORSHIP ON SELF-EFFICACY IN NEW FIRE APPARATUS ENGINEERS

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ABSTRACT

EFFECTS OF MENTORSHIP ON SELF-EFFICACY IN NEW FIRE APPARATUS ENGINEERS

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This study investigated the experiences of newly promoted fire apparatus engineers within CAL FIRE. Provided is a description of the organization, the fire apparatus engineer position duties, and mandated training prior to appointment. A presentation of the literature published regarding the construct of self-efficacy is included, as well as, the literature discussing mentor relationships, particularly in the workplace and the fire service.

The design of the investigation elicited the perspective of the new fire apparatus engineer; specifically, attempting to develop a greater understanding of the availability of mentor relationships. The study investigated the effect that mentor relationships
have on these individual’s perception of effectiveness and their occupational self-efficacy.

Two methods of data collection were utilized: personal interviews and a reflective test of occupational self-efficacy. The research documented the experiences of seven new fire apparatus engineers during the 2011 fire season. The researcher reflectively analyzed the interviews and found two participants had formed mentor relationships. Each of the participants was able to discuss his perception of effectiveness through the four components of self-efficacy. The data from the occupational self-efficacy test was tabulated and averaged, providing unexpected results.

Participants formed mentor relationships directly affected three of the four components of self-efficacy: vicarious experience, verbal persuasion, and psychological arousal. Qualitative evidence documented each individual’s experiences and provided insight into the relationship between mentorship and self-efficacy.
CHAPTER I

INTRODUCTION

Mission Statement: The California Department of Forestry and Fire Protection serves and safeguards the people and protects the property and resources of California. (CAL FIRE, Mission Statement)

Background

The California Department of Forestry and Fire Protection (CAL FIRE), is “dedicated to the fire protection and stewardship of over 31 million acres of privately-owned wildlands” (CAL FIRE, 2012a), and provides emergency response to 36 of California’s 58 counties with various contract agreements. The department’s employees respond to over 350,000 calls for service every year. Of these calls, 5,600 are for vegetation fires, which burn approximately 175,000 acres annually. In order to accomplish this responsibility, CAL FIRE employs 4,700 permanent employees, 3,100 seasonal employees, 5,600 volunteer firefighters, 4,300 inmates and wards of the state, and 2,600 volunteers in fire prevention. These employees staff 803 fire stations, 1095 fire engines, 58 bulldozers, 38 ladder trucks, 215 rescue squads, 63 paramedic units, 12 hazardous materials units, 11 mobile kitchen units, 5 mobile communications centers, 39 conservation camps, 37 airplanes, and 11 helicopters (CAL FIRE, 2009).

Besides fire protection, CAL FIRE is also responsible for maintaining the sustainability of our state’s natural resources, as well as fire prevention through the State
Fire Marshall’s Office. There are 85 million acres of wildland in California, and of that, approximately 17 million acres are commercial forests, which harvest around two billion board feet of lumber each year. (CAL FIRE, 2012d) The goal of the resource management program is to ensure these commercial operations conduct business lawfully, and that they maintain California’s natural resources. The State Fire Marshall’s Office supports CAL FIRE’s mission through the “development and application of fire prevention engineering, education and enforcement” (CAL FIRE, 2007).

While CAL FIRE’s responsibilities are vast, this thesis focuses solely on the department’s fire protection duties; specifically, exploring the first line supervisor within the organizational framework, the fire apparatus engineer (FAE). Within CAL FIRE, the FAE is responsible for the typical duties of engineers in other fire departments: driving and pumping apparatus, maintaining water supplies, and assisting with firefighting efforts. However, unlike many other major fire departments today, the FAE within CAL FIRE has the additional important role of also being the company officer. The company officer is typically the highest-ranking individual on a specific piece of fire apparatus. Traditionally, the company officer is responsible for the safety of himself and his crew, preserving life, property, and the environment. Through decision-making and effective leadership, the company officer performs these responsibilities during emergency operations. As well, the company officer who arrives first at the scene of an emergency determines goals and objectives and ensures accomplishment while mitigating emergencies. It is also the company officer’s responsibility to maintain a highly trained group of firefighters, to lead and manage these individuals while at the station, and on an emergency scene.
Prior to becoming a FAE for CAL FIRE, the candidate must successfully complete a six-week long training program. This mandated statewide training, known as the Company Officer Academy (COA), focuses on developing the individual responsibilities of a new FAE. The curriculum includes classroom based instruction and practical experience. Technical skills taught include fire apparatus operation, fire behavior, and incident command and control (see Appendix A for a complete list of topics). The information taught is critical to meeting CAL FIRE’s mission. The knowledge presented assists a new FAE in understanding procedures and practice when responding to diverse types of emergencies.

During the COA, there are opportunities to practice other important skills necessary for success in the position. Concepts such as, chain of command, unity of command, and leadership are facilitated through the structure of the academy, mimicking the actual organization. The students are assigned to companies, with one company officer per small group, and one liaison responsible for formal communication between the company officers and the academy’s training staff. The COA provides basic knowledge and skills, required for the FAE position.

Due to the geographically large area CAL FIRE is responsible for, and the highly diverse environments that individuals work within, there is more to the position than can be communicated during the six week long COA. Once individuals have graduated from the COA, they report for duty at stations across the state. These stations are diverse in the population and the environment they serve. Employees will work at stations responsible for protecting the beaches and waters of the Pacific Ocean, to the snow covered peaks of the Sierra Nevada; the densely populated metropolitan areas in
Southern California, to the most rural in the northeastern part of the state. The types of emergencies and the individual responsibilities of each FAE vary depending on their particular assignment.

Upon graduation from the COA, the FAE is enrolled in the California Fire Fighter Joint Apprentice Committee (CFFJAC) program. The program’s goal is to assist with learning the essential knowledge and skills required of the position. Under the guidance and direction of a supervisor, the apprentice completes “prescribed courses of related and supplemental instruction which shall include not less than 144 hours per year” (CFFJAC, 2006). Once at an assigned station, each FAE is responsible for completing monthly training and submitting verification documents appropriately. The program identifies specific job related topics, and sets minimum required hours for initial and continued training during the first three years of employment.

Many individuals seek other sources of formal training to assist with learning the job’s requirements. Dedicated employees enroll in community colleges and universities that have specialized curriculum and degree programs focused on their occupation. Additionally, through committees of subject matter experts, the State Fire Marshall’s Office has established a formal set of courses for Fire Officer Certification (see Appendix B for full curriculum and time requirements).

While formalized company officer educational programs exist, Lankau and Scandura suggest, “Personal learning is largely influenced by relationships with others in an organization” (2002, p. 780). Some of the FAE job requirements that are difficult to communicate through formalized training programs are: how to develop effective leadership, the complexities and progression of group dynamics, and the importance of
individualized personnel management. Additionally, there are station specific responsibilities such as documenting pay, injury and illness prevention, and various other administrative duties that individuals learn on the job. Furthermore, due to the varied emergencies that CAL FIRE is responsible for mitigating, there are area specific hazards, and other specialized skills that are necessary for success in the position. A wide breadth of knowledge and experienced based judgment is required for the demands of this position.

Statement/Description of Problem

Most other departments across the country have an apparatus rank structure progressing from firefighter, to fire apparatus engineer, to lieutenant, to captain. Typically, only the lieutenant level and up hold the responsibilities of the company officer. It is assumed that by this stage in an employee’s career, they have sufficient experience to make effective fire-ground decisions. CAL FIRE is different from most other departments in that the promotion to the FAE position brings with it the additional responsibilities of a company officer. McKeown, studied and identified this phenomenon and found “a collective feeling of overwhelm and isolation experienced by members when making this transition” (2009, p. 17). Because of CAL FIRE’s organizational structure, promotion into the company officer role occurs relatively early in ones career in comparison to other large fire departments. McKeown states this “places employees in positions of responsibility far earlier in their respective careers than most departments, and places these persons in positions of authority with far less experience to draw from when making operational decisions” (2009, p. 3). He also found these individuals “are
required to perform the duties of a fire officer with less initial training and experience” (McKeown, 2009, p. 3).

Research Questions

What is the relative availability of mentor relationships perceived by new FAEs during his or her first fire season? Within CAL FIRE, during the FAE’s first fire season, does the development of a mentor relationship affect an individual’s perception of his or her effectiveness? Do new FAEs within CAL FIRE that have developed mentor relationships have greater occupational self-efficacy than those who do not develop these relationships?

Hypotheses

H1. Relatively few FAE’s within CAL FIRE will report that they developed, or began to develop, a mentor relationship, during his or her first fire season.

H2. The formation of a successful mentor relationship during a FAE’s first fire season with CAL FIRE generates an increase in his or her perception of effectiveness.

H3. The development of a mentor relationship during a FAE’s first fire season will increase his or her self-efficacy.

Purpose of the Study

The purpose of this study is to investigate the experiences of FAE’s during his or her first fire season employed with CAL FIRE. Specifically, what role does the formation of a mentor relationship have on an individual’s perception of self-efficacy? The transition from firefighter to FAE within CAL FIRE comes with numerous increased
responsibilities. By investigating new FAE’s formation of mentor relationships, during their first fire season, and effects on perceived self-efficacy, insight might be given on the importance of these relationships, and how these relationships impact the individuals involved. Research into what people gain from forming mentor relationships, and what the effect these relationships have on new FAEs, could potentially alter how individuals within CAL FIRE view these types of relationships. This study intends to develop insight into the prevalence of mentor relationships during the first fire season of new FAEs within CAL FIRE. If successful mentor relationships increase an individual’s self-efficacy, that information could be beneficial to an individual who is making this transition in the future, and to the department as a whole. If the results of this investigation are communicated to the department’s staff who are responsible for the training and development of new FAEs, there could potentially be an increased focus on educating employees on the benefits of mentoring relationships, or a formal mentor program could be researched and developed.

Theoretical Bases and Organizational Significance

It is important to develop the knowledge, skills and abilities of new FAEs within CAL FIRE. Due to the large organizational structure, FAEs unfamiliar with a new assignment, or a particular environment, are left to learn many of the nuances of the job once at his or her assigned station.

This thesis intends to formulate and create a base of knowledge that investigates the importance of developing mentor relationships early in the career of new fire apparatus engineers, and to investigate what impact these relationships have on an
individual’s self-efficacy. The transition from firefighter to FAE within CAL FIRE presents challenges unlike any other during one’s career. Due to the organizational structure and scheduling, some supervisors of new FAEs have the ability to work directly with their new employee: demonstrating, teaching, guiding, answering questions, and developing the talent of these young leaders. In other circumstances, the new FAE is not scheduled with or provided as much guidance, and left to develop their leadership style and techniques on their own. More fully understanding the effects of mentor relationships created during this transition, could prove beneficial to new FAEs and to the continued success of the department. Developing mentor relationships could potentially help new FAEs be more proficient, in a shorter period of time.

Limitations of the Study

This study will investigate the importance of mentor relationships during the 2011 fire season. This study will explore the effect of mentor relationships on FAEs stationed within three of the current 21 operational units within CAL FIRE. During this study, the organization had a large influx of new FAEs. This growth was greater than average, due to a new examination process that occurred prior to the 2011 fire season. This large number of new employees will potentially influence the perceived availability of mentors, and the amount of effort more experienced staff will put into forming mentor relationships.
Definition of Terms

**Apparatus**

“Vehicle or group of vehicles of any variety used in the fire service” (Wieder, Smith, & Brakhage, 1995, p. 164).

**Battalion**

“Fire department subdivision consisting of all fire service equipment and personnel in a designated geographic area” (Wieder et al., 1995, p. 170).

**Fire Season**

“CAL FIRE’s fire season generally runs from mid-May through November” (CAL FIRE, 2012c).

When weather patterns in an area of the state become warm and dry, and vegetation (fuels) are at a low moisture content point, emergency response dispatch levels are typically increased, facilities are staffed 24 hours a day and additional firefighters are hired. (CAL FIRE, 2012b)

**Limited Term (LT)**

“Limited term appointments shall be made only for temporary staffing needs and shall not individually or consecutively exceed one year” (California Government Code, n.d.)

**Mentorship/Mentor Relationship**

“The name implies a relationship between a young adult and an older, more experienced adult that helps the younger individual learn to navigate in the adult world and the world of work” (Kram, 1985, p. 2).
Schedule A

“Fire protection services furnished by the state, administered by the Unit chief, with full reimbursement of costs by the local agency” (CAL FIRE, n.d.a).

Schedule B

“Personnel, crews and major facilities established and supported by the state . . . and funded by the state’s General Fund for protecting SRA (State Responsibility Area) lands” (CAL FIRE, n.d.a).

Self-Efficacy

“People’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (Bandura, 1986, p. 391).

Justification for Utilizing Self-Efficacy as a Measurement Tool

This researcher determined to use self-efficacy as a measurement due to the unavailability and inaccessibility of other measures of occupational effectiveness in this study’s setting (i.e., promotions, past and current performance evaluations, co-workers/subordinates opinions, and an increase in salary). A self-report of occupational self-efficacy, utilized as an instrument, will assist in capturing occupational effectiveness. It may develop context into the investigation of new FAE’s perception of his or her capabilities, and experience during his or her first fire season.
CHAPTER II

REVIEW OF THE LITERATURE

People have always striven to control the events that affect their lives. By exerting influence in spheres over which they can command some control, they are better able to realize desired futures and to forestall undesired ones. (Bandura, 1997, p. 1)

Social Cognitive Theory

Albert Bandura’s social cognitive theory is a “model of causation in which environmental events, personal factors, and behavior all operate as interaction determinates of each other” (1986, p. xi). The social cognitive theory is distinct from other theories of learning and behavior because it includes the factors of introspection and cognition. This theory diverges from previous traditional theories about knowledge acquisition and behavior, generated strictly from biological and environmental factors (Pajares, 2002). While the social cognitive theory does integrate these influences into its premise, it filters information through the cognitive process of introspection to formulate understanding. Pajares states, “Social cognitive theory is rooted in a view of human agency in which individuals are agents proactively engaged in their own development and can make things happen by their actions” (2002, “Social Cognitive Theory,” para. 6).

Individuals hold self-beliefs that allow them to apply self-control over who they are, and who they want to be. Bandura states, “what people think, believe, and feel affects how they behave” (1986, p. 25). Interpretations of one’s self affect what
individuals choose to do, how they do it, and to what level they invest themselves in a particular activity. Individuals can have significant control of their lives. Decisions made affect intended outcomes, and impact abilities to complete tasks.

**Self-Efficacy**

Self-efficacy is a personal construct initially discussed by Bandura; his work has elaborated on the influence self-determinism has in relation to one’s life. According to Bandura, self-efficacy is “people’s judgments of their capabilities to organize and execute courses of action required to attain designated types of performances” (1986, p. 391). It influences all aspects of life; however, the construct is specific in its relationship to various situational demands. An individual’s perception of their self-efficacy has diverse effects.

Such beliefs influence the courses of action people choose to pursue, how much effort they put forth in given endeavors, how long they will persevere in the face of obstacles and failures, their resilience to adversity, whether their thought patterns are self-hindering of self-aiding, how much stress and depression they experience in coping with taxing environmental demands, and the level of accomplishments they realize. (Bandura, 1997 p. 3)

Gist and Mitchell simplify the concept by stating that, “People who think they can perform well on a task do better than those who think they will fail” (1992, p.183). Self-efficacy associates an individual’s belief about his or her capabilities to execute a particular action. Bandura and others have elaborated on the construct of self-efficacy as an inclusive summary or conclusion of perceived capacity in performing a task (Bandura, 1986, 1997; Gist & Mitchell, 1992; Wood & Bandura, 1989a). The construct, expanded to exist within the framework of an organizational setting, introduces other factors for the individual to consider (Wood & Bandura, 1989b). Gist and Mitchell elaborate, “In an
organizational context, information derived from the individual, the work task, and others in the work environment may contribute to the comprehensive assessment of capability” (p. 184). Additionally, the construct of self-efficacy is dynamic and can evolve over time. Given new or updated knowledge and skills, one may perceive his or her abilities to accomplish a task differently, after personal change or growth. As well, the construct involves a mobilization component.

Self-beliefs of efficacy affect the challenges that are undertaken, the amount of effort expended in an endeavor, the level of perseverance in the face of difficulties, whether thinking patterns take self-aiding or self-impeding forms, and vulnerability to stress and depression. (Wood & Bandura 1989a, p. 408)

Other Models of Self-Evaluation

It is necessary to distinguish self-efficacy from other models of self-evaluation. Self-efficacy is different from self-esteem and self-concept; both of these constructs have a more global evaluation of the self, self-efficacy is more specific (Bandura, 1997). For example, a high school math teacher may have low self-efficacy in identifying Mozart’s music; however, he may not be concerned with that specific arena within his life. He would mostly likely maintain high self-esteem and self-concept. However, if the math teacher accepts a new position in the collegiate setting, his self-efficacy regarding his new job will most likely be lower than that of his previous one.

Components of Self-Efficacy

Bandura postures that self-efficacy has four components that constitute one’s personal efficacy: enactive mastery, vicarious experience, verbal persuasion, and physiological arousal (1997). First, enactive mastery is described,

Individuals engage in tasks and activities, interpret the results of their actions, use the interpretations to develop beliefs about their capability to engage in subsequent
tasks or activities, and act in concert with the beliefs created (Pajares, 2002, “How Self-efficacy,” para. 1).

Experiences perceived as being successful after completion will increase an individual’s self-efficacy. Consequently, experiences that are perceived as failures will lower an individual’s self-efficacy, especially, if the individual believes that his or her failure was due to incompetence, not just of lack of effort. As well, those who possess low self-efficacy often psychologically minimize a successful outcome, instead of changing their opinion of themselves (Bandura, 1997).

Second, in addition to interpreting past experiences, Bandura suggests that vicarious experiences influence self-efficacy (1997). Vicarious experience is foundationally learning from watching others perform actions, or observational learning. This component of developing self-efficacy is particularly important if the person has limited experience with the tasks requirements, or knowledge of the environment in which the behavior is taking place (Bandura, 1997). This aspect of self-efficacy is essentially interpreting modeled behaviors. It is important to consider the individual’s perception and attention to the model’s successes or failures. This interpretation will give some insight as to whether the individual will utilize particular modeled behavior when determining how to accomplish their objective successfully. It is important to note that individuals with high levels of self-efficacy can continue to refine their understanding of concepts if they are motivated to do so (Bandura, 1997).

It bears noting that people seek out models who possess qualities they admire and capabilities to which they aspire. A significant model in one’s life can help instill self-beliefs that will influence the course and direction that life will take. (Pajares, 2002, “How Self-efficacy,” para. 2)
The third component of self-efficacy is social persuasion, which involves verbal communication with others regarding one’s capabilities. They can be either positive or negative and can influence self-efficacy either way. Who the persuader is, has an effect on the validity in how one interprets a particular judgment. The context and environment also influences what type of impact the persuasion has on an individual (Bandura, 1997).

Lastly, physiological states such as stress, anxiety, depression, and self-doubt, have powerful impacts on an individual’s self-efficacy regarding a particular behavior. “Strong emotional reactions to a task provide cues about the anticipated success or failure of the outcome” (Pajares, 2002, “How Self-efficacy,” para. 4). An individual’s mental state regarding a particular behavior or task has determining effects on the result.

While these components guide the formation of one’s efficacy beliefs, it is the individual’s cognitive evaluation and integration of these components that in the end establish perceived self-efficacy (Bandura, 1986). Bandura states, “It becomes instructive only through cognitive processing of efficacy information and through reflective thought” (1997, p. 79). He describes the four components: enactive mastery, vicarious experience, verbal persuasion, and physiological arousal, when assimilated by the individual, is what determines their personal appraisals of efficacy (Bandura, 1986).

**Occupational Self-Efficacy**

Individuals spend much of their lives focused on their chosen occupation. Careers do more than provide monetary value to persons, they formulate who we are, and are a key component to everyday life. Occupations provide us with a central understanding of who we are as people and are an influential source of our identity and
our sense of self-worth. Our chosen occupations determine much of what our lives are like, whether we are self-fulfilled, challenged, engaged, happy, frustrated, bored, distressed, or depressed. Jobs can require traveling to various parts of the earth, or sitting in a cubical. They are often a part of life, highly dependent on successful interactions with other people; this interaction with others greatly influences our sense of self. Most people have an inherent desire to master the particular technical skills of their occupation, as well as the interpersonal, and self-regulatory capability essential to achievement of one’s role in the workplace (Bandura, 1997). Often to succeed in mastering these occupations, individuals spend time and energy preparing themselves for their jobs, continuing their education by taking pertinent classes and attending specific trainings. It is impossible to estimate how much money is spent on occupational training, and there is little reliable evidence regarding how effective these various programs are (Bandura, 1997). “Most training programs do not even make a pretense at empirical verification of their effectiveness” (Bandura, 1997, p. 440). He postures that, “another way of expanding the scope of occupational self-efficacy is by exposure to models from similar backgrounds performing the occupational roles successfully” (Bandura, 1997, p. 439). Master models serve to fulfill the role of vicarious experiences in developing an individual’s self-efficacy.

**Mastery Modeling**

Individuals look for capable models that have the knowledge, skills, and abilities they desire to possess. “By their behavior and expressed ways of thinking, competent models transmit knowledge and teach observers effective skills and strategies for managing environmental demands” (Bandura, 1997, p. 88). Wood and Bandura
discuss developing competency through mastery modeling and observational learning. They identify four integral components to effective modeling: attentional processes, representational processes, behavioral production processes, and motivational processes (Wood & Bandura, 1989b).

Attentional processes are “what people selectively observe in the profusion of modeling influences and what information they extract from ongoing modeled activities” (Wood & Bandura 1989b, p. 362). Essentially, this describes what individuals pay attention to and what they remember during a modeling experience. This relates to the individuals' preconceptions, and perceived value (Bandura, 1997).

Second, the representational process “involves an active process of transforming and restructuring information about events in the form of rules and conceptions” (Wood & Bandura 1989b, p. 362). Wood and Bandura describe this further as “retention is greatly aided when people symbolically transform the modeled information into memory codes and mentally rehearse the coded information” (1989b, p. 362).

Behavioral production processes are the third component of modeling (Bandura, 1997). Wood and Bandura state “This is achieved through a conception-matching process, in which people’s centrally guided patterns of behavior are enacted and the adequacy of their actions is compared against their conceptual model” (1989b, p. 362). This component then integrates individuals changing their behavior through the comparing of ideas to achieve “close correspondents between their conceptions and their action” (Wood & Bandura, 1989b, p. 363).
Lastly, motivational processes involve individuals identifying an outcome, and integrating that behavior into their repertoire. There is a difference in one’s motivation in acquiring knowledge than actually demonstrating it. If an individual believes the model’s behavior will benefit them, then they will be more motivated to include it into their practice. However, if the modeled behavior is identified as unsuccessful, or potentially damaging, then one would be less motivated to include it into their own inventory.

Additionally, there is the accepted difficulty of utilizing modeling to develop the entire realm of cognitive skills. Decision-making and problem solving are concepts not fully understood by merely observing a master model. Bandura suggests master models “verbalize their thought processes and strategies aloud as they engage in problem solving activities” (1997, p. 93). Gorrell and Capron (1990) found that verbal modeling of cognitive skills could be more effective than direct instruction.

Bandura’s (1997) construct of self-efficacy and its four components: enactive mastery, vicarious experience, verbal persuasion, and physiological states have significant impacts on individuals and influence their world of work. The interconnection of the individual, the environment, and social influences, all affect how one fits into an organizational setting. There are noticeable similarities in the literature regarding the construct of self-efficacy and the concept of mentorship.

Mentoring as an Avenue to Increasing Self-Efficacy

Individuals inherently want to be successful, and many prosperous individuals have had mentors to guide them through their life’s challenges. The concept of mentoring
is an educational process that exists throughout history. In literature, its deepest roots are in Greek mythology in Homer’s *The Odyssey*. When Odysseus is preparing for battle, which will separate him from his son, Telemachus, for some time, he calls on his confidant, Mentor, to prepare his son to take the throne if he does not return (Wade, 2004). The process of mentoring has existed for generations to pass on knowledge, skills and abilities to those interested in particular knowledge. Levinson explored the importance of mentor relationships in a man’s life; his research concluded, “The mentor relationship is one of the most complex, and developmentally important, a man can have in early adulthood” (1978, p. 97). Interestingly, he found that “mentoring relationships are more the exception than the rule for both workers and managers” (1978, p. 334).

The concept of mentoring in the workplace, has received increasingly specific attention from researchers (Fagenson, 1989; Gerstein, 1985; Huse, 1985; Kram, 1985; Lewis, 2001; Phillips-Jones, 1983; Roche, 1979). According to Hegstad and Wentling (2004), Phillips and Jones (1983) concluded that successful organizations, such as, AT&T, IBM, Apple, Johnson & Johnson, Honeywell, and Allstate Insurance, have implemented programs that utilize various components of mentoring. These organizations have been accepted and recognized as successful by Fortune Magazines Fortune 500 list (Hegstad & Wentling, 2004; Huse, 1985). Gerard Roche’s (1979) foundational work, on mentoring in business, surveyed 1,250 executives investigating their perceptions of mentor relationships in their past. He states, “Executives who have had a mentor earn more money at a younger age, are better educated, are more likely to follow a career plan, and, in turn, sponsor more protégés than executives who have not had a mentor” (Roche, 1979, p. 15).
The United States Military, including the Air Force, has implemented a formal mentoring program into their process of officer development. They utilize a computer-based program that matches potential mentors and protégés after each has completed a questionnaire (Wade, 2004). The United States Army has supported and published documents regarding mentoring for its civilian employees (Department of the Army, 1995). However, it has not formally supported a mentor program for enlisted personnel due to the sponsorship component. Some of the Army’s leaders feel there is a potential for unfair advantages in promoting particular chosen individuals, potentially leaving behind other qualified members of their agency (Steinberg & Foley, 1999). However, the Army has established numerous programs that apply the basic principals of mentorship to develop their personnel. According to the Army, “By learning from the senior manager or executive, the associate more quickly masters the formal and informal structures of the organization, learns the practical uses of authority, and acquires skills that improve their own prospects for success” (Department of the Army, 1995, p. 1). The associate or mentee, with the help of the mentor, is navigating and attempting to master the complex structures of the organization. The acknowledgement that organizations have formal and informal structures sets the foundation and develops a context regarding mentor relationships. The continuation of research, towards attempting to understand the role of mentorship and its impacts, suggests that it is a powerful tool in developing individuals within an organization.

Some organizations realize the benefits of formal mentoring programs; however, others have not implemented formal programs for various reasons. One reason, particularly interesting, is what Ragins and Cotton (1999) found; informal mentors have
greater impacts on their mentees than formal ones. Informal mentor relationships are ones that form without a direct program pairing the two individuals. They gravitate to one another for various reasons. Research has recognized differences in the formation of formal and informal mentor relationships.

A growing field of research is showing that an increasing number of younger individuals within the context of an organization are taking control of their careers, recognizing the benefits mentor relationships have, and are seeking them out (Kossek, Roberts, Fisher, & DeMarr, 1998; Morris, 2009). Mentoring relationships provide a variety of functions for the individuals involved. The published literature is vast in depth and scope suggesting that mentoring, whether formal or informal, is a successful means of developing individuals. The understanding that younger, inexperienced employees will quickly gain greater insight, learn requisite knowledge, skills, and abilities and thereby becoming successful with fewer mistakes, has prompted entire occupational fields to develop formal mentoring programs.

The construction industry and their trade unions utilize a formal mentoring system. This system teams master employees, highly skilled in their profession, with individuals who desire to acquire these skills (Corney & Du Plessis, 2010; Fayek, Shaheen, & Oduba, 2003). The industry utilizes the terminology apprentice and journeyman. This formally established, union regulated relationship provides time and close supervision to inexperienced apprentices. The relationship allows the apprentice to practice a particular set of knowledge, skills, and abilities with appropriate guidance. The apprentice prior to being qualified to work independently must demonstrate mastery, of their trade’s skills.
Semantics

There has been discussion in the literature about the word “mentor” and its variety of connotations, influencing the quality of data that is collected. Many researchers, exploring these relationships, used alternative wording to describe the idea of mentorship to better fit within the organizational culture they were researching. Kram utilized the term “developmental relationships” (1985, p. 4). Roche utilized the phrasing, an individual “who took a personal interest in your career and who guided or sponsored you” (1979, p. 15). The varied wording utilized among researchers to describe the concept of a mentor relationship was intentional, attempting to create less bias in participant’s response regarding the overall concept. Literature recognizes there is a stigma associated with the concept of mentorship in many organizations (Steinberg & Foley, 1999).

Research has generally concluded that mentoring is beneficial to both mentor and mentee (Kram, 1985). The mentor benefits both, within the organization and personally, if they are effective at producing competent employees. Recognized by his or her peers, the mentor benefits the organization through invested interest in developing employees. They also benefit personally, feeling influential, by sharing their years of gained knowledge and experience, so that someone else will benefit. Research has shown that relationships in which both members benefit, creates stronger bonds and produces greater outcomes (Kram, 1985).
Mentoring Functions

Kathy Kram’s foundational book, *Mentoring at Work* (1985), suggests there are two broad categories of functions that mentors provide for their mentees, one being career functions, and the other being psychosocial functions.

Career functions are those that assist an individual’s success within the organization. She suggests, sponsorship, exposure and visibility, coaching, protection, and challenging assignments are the components, which generate a developmental relationship within in the workplace (Kram, 1985). Sponsorship is a more senior member of the organization promoting a younger talented individual for advancement. Sponsorship can be formal, such as, recommending the individual for promotion, or informal, for example, bringing up the individuals name in a high-level meeting.

Exposure and visibility is a mentoring function that allows the younger member to have contact with higher-level members of the organization, by giving the individual an opportunity to attend various meetings, and demonstrate competence and performance to senior level individuals. Coaching is giving feedback, both positive and constructive, by providing advice, and assisting with understanding performance in a particular job.

Protection is the function of looking out for the younger individual’s well-being, essentially providing a shield against negative perceptions or outcomes. Challenging assignments provide an opportunity for the mentee to gain confidence in particular job tasks; this function prepares the individual to be able to perform on their own when needed.

The psychosocial functions Kram (1985) discusses are role modeling, acceptance and confirmation, counseling, and friendship. Psychosocial functions confirm
and support the individuals evolving sense of self. Role modeling is demonstrating proficient and appropriate behavior, techniques, styles, knowledge and abilities. Good role models provide a representation of one way to be successful. According to Kram:

> Acceptance and confirmation enables a junior person to experiment with new behaviors. A relationship that provides this function has a basic trust that encourages the young adult to take risks and to venture into unfamiliar ways of relating to the world of work. (1985, p. 35)

Counseling provides an opportunity for an individual to discuss feelings of success, fears and anxieties. Friendship described as, “social interaction that results in mutual liking and understanding and enjoyable informal exchanges about work and outside work experience” (Kram, 1985, p. 38). Kram sets the foundation regarding the specific functions a mentor relationship provides. She elaborates that not all of these items are necessary for an individual to consider a particular developmental relationship as a mentor type; however, the more of these functions that exist, the closer the relationship is to one.

The concept of mentor relationships seem to be generally accepted by research as an effective avenue for communicating experienced based knowledge to younger, less experienced employees. “If knowledge and skills could be developed only by direct experience, the acquisition of competencies would be greatly retarded, not to mention exceedingly tedious and hazardous” (Bandura, 1997 p. 440). One can only imagine if we compound this concept into the organizational setting, with every employee learning his or her own lessons through experimentation, or trial and error; organizations would be very slow to progress. The literature suggests that there are stages, within an individual’s career that make them more or less available to serve as a
mentor. This timing component has a great effect on the success of particular mentor relationships (Kram, 1985).

Career Stage Affects Mentor Relationships

There are determined stages that people progress through during a career. The stages identified seem to be universal, and directly relate to an individual’s age (Kram, 1985; Levinson, 1978). It is important to document different stages, individuals progress through, during a career, because this affects the frequency, and the particular role an individual serves in a mentor relationship.

Early Career Stage

The early career stage is the time when individuals are establishing themselves within the world of work. They are usually new to the occupation and its requirements, and are attempting to learn about the structures and individuals within it (Kram, 1985). Individuals are identifying the organizations components, how individual parts fit together. During the early stages of one’s career, the worker is learning the ropes, beginning to understand norms, and realizing which players within the organization have power. “The choices people make during the formative periods of development shape the course of their lives” (Bandura, 1997, p. 422). Typically, during this time, individuals are not only making decisions about themselves, and their life at work, they are also forming an individual sense of self outside of the workplace. They are making decisions about themselves in this context, and in relation to their work. Individuals decide how much effort to spend on their career: and how their career is going to fit into their chosen life outside of the workplace. During this stage, younger individuals will identify others in
the organization with whom they relate, and whom they aspire to be like (Kram, 1985).

Typically, during this early career stage, individuals, who are able to form mentor relationships within the workplace, will assume the role of a mentee. Because individuals are still formulating their own personality, successful people are typically very observant of how tasks are accomplished within the organization. They are becoming aware of the organizational culture; what is acceptable, and what is not. As well as, what types of behaviors are bringing success to others in the workplace, and what behaviors are not? At this time, individuals are typically malleable, open to new ideas and thoughts, on how to get things done (Kram, 1985). These young individuals are forming new relationships with those whom they have identified as successful within the organization.

Mid Career

The mid career stage is when the individual typically has formulated a good understanding of how things work within the organization. They have developed relationships with those with whom they work, and have become effective in getting responsibilities accomplished. It is often a time of self-evaluation and reflection (Kram, 1985), as to where they are in their respective careers. Those who are happy with what they have accomplished, thus far, will most likely choose to continue on a similar path. Others will evaluate what they have done, make determinations to change course and develop themselves in different ways, so that they can feel successful prior to the end of their career. This is often the career stage where the hierarchal component of scalar organizations tends to reduce the individuals ability to promote, due to the increasing competition for fewer positions. Individuals who have developed themselves and their career in a manner in which they feel has been appropriate, can often serve as excellent
mentors. These individuals have mastered the functions of the job, have often supervised many subordinates throughout their career, and have developed the ability to identify individuals whom they perceive as talented and potentially capable, to climb the organizational ladder. However, if an individual, in his or her mid career stage, has not mastered personal goals, they are often not suitable to become mentors to individuals in their early career stage, because they are still developing their own competency. However, these types of people can often provide important information to an individual in his or her early career stage because they have common ground regarding the continued formation of who they each are becoming.

**Late Career Stage**

The late career stage is a time in an individual’s world of work when they are evaluating what they have done throughout their career. They are reflecting on the choices that they have made and the results of those decisions. Often times, these individuals are preparing to move away from the workplace and into retirement. This career stage possesses the greatest number of individuals who can serve as mentors, as perceived by mentees (Kram, 1985). These senior individuals have typically mastered the various aspects of their work. They are interested in sharing what they have learned throughout their careers with those whom they identify as interested in their knowledge. They have numerous stories of personal triumphs and tribulations, and understand the importance of sharing this knowledge with the younger members of the organization. This facilitates the development of the organization they have worked so hard for over the years. The particular stage of an individual’s career directly affects an individual’s availability to engage in fruitful mentor relationships (Kram, 1985).
Phases of Mentoring Relationships

The literature suggests there are phases that individuals involved in a mentor relationship go through (Kram, 1985; Levinson, 1978; Missirian, 1982). Missirian (1982) defined the phases of mentor relationships as initiation, development, and termination. Kram (1985) cites Phillips-Jones as finding mutual admiration, development, disillusionment, parting, and separation as the stages in her work. Kram (1985) found both of these models similar, in that both of the previous studies were reflective accounts of a manager’s perceptions of particular relationships. Kram’s (1985) work differed in the fact that she considered the perspectives of both the mentor and the mentee, and interpreted their descriptions of the particular phases of their relationships.

Kram found that initiation, cultivation, separation, and redefinition better fit the perspective of both individuals involved in the relationship. She identifies generic timeframes and offers descriptions of each of the phases. A similarity, in much of the research, shows that there is an end to these relationships, caused by either functional or psychological reasons (Kram, 1985). The writing regarding mentoring; formal and informal programs, functions, phases, benefits and outcomes has been documented in published literature. However, in comparison, relatively little research has been conducted on the topic in the specific field of firefighting.

Mentoring in the Fire Service

The greatest quantity of literature regarding mentorship specific to the field of firefighting is focused on the development of formal programs (Buchanan, 2007; Landerville, 2003; Lasky, 2002; Lewis, 2001; Myers, 2004; "Roundtable," 2005;
Schrage, 2007; Shoebridge, 2006; Smith, 2002). Within the past decade, the literature published discussing the creation of mentorship programs within fire departments has grown nationally. One example of program development is the Orlando Fire Department (OFD) under the leadership of Chief Kathy Miller (Lewis, 2001). Chief Miller recognized the benefits of the close working relationship between intern and preceptor paramedics in her department’s emergency service branch. Typically, prior to Advanced Life Support (ALS) certification, a paramedic must pass a classroom based training program, and then demonstrate proficiency in a clinical or practical based assessment. A preceptor evaluates an intern’s skills prior to them working alone in the field. Chief Miller recognized the success of this relationship within the OFD and created a program to mimic it on the firefighting side of her organization. She borrowed terminology from law enforcement, the Field Training Officer (FTO), and formed a pool of trainers that met established criteria within her department. The trainers were formally paired with new cadets who participated in a training program that “reached out” to various individuals, within their community, interested in working for OFD. Lewis discusses her program’s implementation and the standards that she created to facilitate the program’s progress.

A formal mentor program by the Gwinnett County Department of Fire and Emergency Services documented development and ways the department got “buy in” from department personnel (Myers, 2004). As well, Landerville (2003) gives suggestions on how to develop and implement a formal program. He discussed the program formation, established criteria to identify mentors, presented qualities individuals should possess, made suggestions for program support, and looked at methods to evaluate
success. Buchanan (2007) discussed the importance of organizational culture transmitted by the individuals at the station level to new personnel.

Most of the published literature in the fire service cites anecdotal evidence of the benefits of mentor programs in developing company officers (Lasky, 2002; "Roundtable," 2005; Schrage, 2007; Shoebridge, 2006). Lasky (2002) discussed a mentoring program established with the Lewisville Fire Department. He discussed his department’s formulation of a questionnaire, produced to elicit information from senior members who were about to retire. Individuals were questioned regarding their experiences throughout their tenure with the department. The responses were consolidated, and the information was given to younger individuals in the department. They also established an additional aspect to the program dedicated to individuals within the department who were ready to be promoted, focused on assistance with their transition to the new position (Lasky, 2002).

A mentorship pilot program created, by the Anchorage Fire Department, due to the overwhelming retirement of over 60 of its senior members, and exponential growth (Schrage, 2007). The program enlisted recent retirees to assist in developing the department’s young company officers. The program goals were:

- Assist new officers in transitioning from crew members to crew leaders and managers.
- Help new members appreciate the organization’s history and traditions
- Provide a program for company officer development.
- Help new officers develop critical decision making skills in leadership, supervision, and incident management.
- Provide new officers reassurance and develop their confidence.
- Provide feedback to senior staff regarding training, organizational, and operational needs and concerns. (Schrage, 2007 p. 83)
After matching the individuals, each pair reported for duty, for the entire first month, and served 25 shifts together. The mentor had safety gear, but did not participate in typical emergency response duties. They were there solely to observe and to serve as a facilitator of a discussion at the conclusion of incidents. They were responsible for debriefing and discussing important lessons learned from both the company’s experiences and connecting them with their own experiences. Schrage’s (2007) analysis of the program thoroughly identified the experiences of the members. In the article, unlike others in the field, was a conclusive summary of the individual’s personal development, and their perception of the realized benefits. The recommendations included future improvements and full program implementation. While Schrage (2007) discusses the realized benefits of mentor relationships within the transition from firefighter to company officer, the majority of literature in the field is absent of systematic investigation regarding specific outcomes mentor relationships have on the individuals involved.

The majority of fire related literature published in professional journals cites anecdotal evidence of the perceived benefits of mentorship. Literature published through the National Fire Academy in Emmetsburg, Maryland, documents the formation of formal mentor programs in the fire service. However, the literature published is primarily from a top down viewpoint, and does not develop perspective of a mentee. The literature regarding mentoring in general suggests that other occupational fields have recognized that, the formation of this type of relationship is beneficial, if those involved invest themselves. Due to the lack of literature documenting the specific outcomes of mentor relationships in the fire service, there is a need for more specific research regarding this topic.
CHAPTER III

METHODOLOGY

The purpose of this reflective investigation is to gather qualitative data from FAEs following his or her first fire season employed in that position with CAL FIRE. The objective is to document and analyze individual's experiences, and identify potential trends with participant’s descriptions; specifically, gathering data on each individual’s development of mentor relationships and his or her perceived self-efficacy.

Description of Sample Population and Study Area

The population investigated was seven newly promoted FAEs. Each participant had recently attended and graduated from the COA, which is required training prior to appointment to this position. Each of the participants worked as an FAE, for their first time with CAL FIRE, during the 2011 fire season and worked within one of the 21 operational units that exist within the department. Five of the participants worked within the same operational unit, and the other two each worked in different operational units. Two of the participants worked at schedule a contract fire stations; five worked at schedule b stations. The selection of participants for this study was purposeful, and based on specific criteria. The researcher intentionally chose to investigate individuals from different operational units and different operational schedules, in an attempt to determine if differences are present within these experiences.
Design of the Investigation

Data collection utilized two methods: interviews and a self-report test of occupational self-efficacy. The researcher conducted a one-on-one interview with each participant. The process was semi-structured, with questions developed in advance to maintain similarity in data collected. The process was intentionally semi-structured as to allow the participants, and the researcher, to explore all aspects of each individual’s experience; and designed not to limit the realm of discussion. The questions asked were open-ended which allowed the participants to elaborate on his or her experiences.

In addition to interviews, each participant completed a 19-point Occupational Self-Efficacy Scale (OCCSEFF), essentially a test of an individual’s self-efficacy in an occupational context. The researcher gained permission from the authors of the OCCSEFF to utilize it as a tool to collect data. The OCCSEFF created by Schyns and Von Collani (2002), is a conglomeration of three separate tests:

The general self-efficacy subscale by Sherer et al. (1982; 10 items), the generalized self efficacy scale by Schwarzer (1994; 7 items), the hope scale by Snyder et al. (1991; 2 items), and the heuristic competence scale by Stäudel (1988; 1 item). (p. 224)

It adapted many of the questions from the original tests to capture job related criteria.

Items from these general scales were reformulated in such a way that they addressed the occupational domain. An example may illustrate this procedure: The original item from a general scale read: “When I make plans, I’m certain I can make them work.” The specific item adapted to the occupational domain then reads: “When I make plans concerning my occupational future, I’m certain I can make them work.” (Schyns & Von Collani, 2002, (p. 224)

The OCCSEFF is a 19-question test, which uses a Likert-type response scale ranging from one, completely true, to six, not true at all. The measure gives indication of an individual’s self-efficacy within their occupation.
Data Collection

The researcher contacted the Unit Chief, of one of CAL FIRE’s 21 organizational units, to gain approval to conduct this investigation. During this meeting, permission was granted, and contact information was provided for 14 newly appointed FAEs, employed within that organizational unit during the 2011 fire season. In addition, two other FAEs not employed by this organizational unit were contacted, in an effort to diversify the sample. This created 16 potential candidates to participate in the study. However, four of the individuals on the original list, provided by the chief, worked in the same schedule a fire station. In an attempt to keep the data from being skewed, the researcher randomly selected one of the four individuals. The researcher attempted to contact 11 of the individuals to participate in this study; however, contact was successfully made with only nine of the potential candidates. As well, two of the individuals did not meet the targeted population. Therefore, of the original 16 potential candidates, seven of them actually participated in the process.

Scheduled interview dates gave each participant time to reflect on his experience. The researcher met four of the participants in person, and three interviews were conducted via telephone. All but two of the interviews were successfully recorded with permission given by the participants. Each of the recorded interviews was summarized/transcribed. Individuals had the 19-point OCCSEFF administered after the interview. The researcher provided and received both of the applied paper documents, the required informed consent, and the occupational self-efficacy scale, in three manners: email, fax, and by hand.
Participation in the study was voluntary, and if at any time participants felt they did not want to participate, they could have withdrawn from further involvement without reprisal. In order to elicit honest responses the researcher verbally informed, and documented with signed consent, an agreement of confidentiality. In order to protect the confidentiality of each individual, names are changed within this document.

In order to provide a strong chain of evidence and proof of truthfulness, the researcher maintains a single master copy held in a secure location, of all of the digital recordings and associated documents used in this project. All of the participant’s were male.

Data Analysis Procedures

It is important to note that CAL FIRE seasonally employs the researcher. Because of this personal experience with the department and its employees, the researcher has an inside understanding of the context, environment, and organizational culture. Due to this close association with the organization and some of its employees, the researcher has an inside perspective to the data being collected. With this perspective, and the fact that two of the interviews were not successfully recorded, the methodology employed for analyzing the data will be reflective analysis. According to, Gall, Gall and Borg, “reflective analysis refers to a process in which qualitative researchers rely mainly on their own intuition and personal judgment to analyze the data that have been collected” (2005, p. 317).

The interview process will provide context into each participant’s experience, and potentially answer the first and second research questions. The results of the
OCCSEFF will be tabulated, and a basic statistical analysis will be performed; attempting to answer the third research question. By utilizing both the data gained from the interviews, and the OCCSEFF, corroborative evidence may be found in determining each participant’s perception of effectiveness. Gall et al. discussed this further, and “call the process triangulation: it is the process of using multiple data-collection methods, data sources, analysts, or theories to check case study findings” (2005, p. 320). Once the data is compiled, the researcher will examine it, attempting to identify trends, similarities and differences, and any outliers that participants report.

It is important to note that due to the close relationship with the organization and its players, and the researcher currently seeking full time employment with CAL FIRE, some discretion will be used considering the information disclosed within this report.
CHAPTER IV

RESULTS AND DISCUSSION

Presentation of the Findings

This study attempted to investigate the experiences of new FAEs during their first fire season employed with CAL FIRE. Specifically, three questions were the focus of inquiry. First, what is the relative availability of mentor relationships perceived by new FAEs during their first fire season? Second, within CAL FIRE, during the FAEs first fire season, does the development of a mentor relationship impact an individual’s perception of his effectiveness? Third, do individuals that have developed mentor relationships have greater occupational self-efficacy than those who do not develop these relationships?

In order to build context into understanding the experiences of the participants, an overview of each interview will provide insight into each individual’s background, work environment, experience, formed mentor relationships and perception of effectiveness.

Overview of Each Interview

Summary of Interview with Jim,
February 21, 2012

Jim had been a firefighter in one CAL FIRE unit for the previous six fire seasons and it was during his seventh fire season that he became a new FAE. He attended the COA in the spring prior to the 2011 fire season. He was promoted from firefighter to
FAE within the same organizational unit. He had worked at both schedule a and schedule b fire stations prior to being promoted. His was assigned to a schedule b, two-engine, fire station which receives relatively few calls. Jim felt very fortunate to have a young, progressive station captain who had a wealth of experience to supervise him. From his first day on the job, his captain provided clear expectations of his job responsibilities. His captain told him:

You're going to have a partner engineer. You guys are in charge of training, and paperwork, and month ends. I am going to help you out where you need it, but you work with him and figure this stuff out. I have very high expectations for you, I have very high expectations for my firefighters, and I want to make sure we share the same goals.

Jim worked two out of his three days with this particular captain. He said, “It was really great working with him. He actually took the time to write out a letter of expectation to the station personnel.”

When asked specifically about the relationship that he and his captain developed, he described it as very positive. He said,

We’d be up at night just talking at the computer in the office, not only talking about work, but just life in general. We built a pretty good relationship, by the end of the season, we knew exactly what each other were thinking. He is somebody I would aspire to be in the future, he's got a lot of good qualities. He laid a lot on me, which was hard at first, but it gave me a lot responsibility, and made me learn a ton. He was always checking to make sure that I was doing things right. He was a good guy to work under your first season strictly because he takes an interest in bettering your skills and making you learn what you need to.

As a firefighter, Jim got along pretty well with everybody. When he became an FAE, he utilized those previously created bonds to relate with others while in his new position. However, he said some relationships diminished because he was promoted to FAE and these individuals were jealous of him getting the position. Some bonds became
weaker and some bonds were strengthened with his new job. Jim was always the company officer of his engine. However, due to his assignment at a two-engine fire station, there was usually a captain at the station as well.

When asked about his overall experience as a new FAE during his first fire season, he said he learned a great deal about the position. He felt that he had grown a little further from firefighter to company officer when he came out of the COA. However, it was not until he had actually run some incidents that he was able to begin to develop his leadership style. Because of these experiences, he felt that his confidence had grown. He felt like his captain had given him good understanding as to what his job was, including station operations, paperwork, and other required duties. Jim felt that his captain would have let him take as much criticism as he needed. He said, “He wasn't about going really easy on people, he wanted you to know what was expected of you and what you're responsible for.” However, Jim always felt that his captain would support him. He stated, “He made it very clear to me that he's here to back me up.”

Overall, Jim felt like he was successful, especially since it was first fire season. He said that his captain not only praised him in monthly performance evaluations, he also received constructive criticism, focused on areas that he needed improvement. Jim felt he performed better than some other new engineers did, and he thought he was a little higher than the middle of the road in comparison to others. He said,

I feel I was pretty effective. I wanted to meet my captain's expectations, and I think I did for the most part. There were a few times when I learned from my own mistakes, as I went along. I definitely made a couple mistakes, but I have learned from them, and I did not make them again. I learned from other people's mistakes as well, it’s like man, I am not going to do what that guy did.
Summary of Interview with Paul,  
February 22, 2012

This interview could not be recorded due to the background noise at the location in which we met. However, immediately following, the researcher was able to digitally record thoughts regarding the conversation that occurred.

This was Paul’s first fire season working for CAL FIRE. In the past, he had been in the military and worked for a federal wildland firefighting agency. More recently, he worked in the private sector. After deciding that this was not his desired career, he returned to a fire department, as a paid-call-firefighter for a few years, prior to being hired with CAL FIRE.

Paul worked at a schedule a station, which has more traditional staffing and each day there is at least one fire captain on duty. Paul worked with three separate captains during his three-day shift. Due to the staffing situation at his station, Paul was always being paid as an engineer, but never acted as the company officer.

Throughout the entire conversation, he seemed somewhat jaded with his first experience with CAL FIRE and stated that he was unsure if he would be rehired for the 2012 fire season. He expressed some challenges in developing effective working relationships with those at his station. He shared a story about how he criticized some wiring on one apparatus assigned to his station. He voiced concerns to one captain, who worked at the station for many years, and had actually done the wiring himself. Paul said this created an initial confrontation, and continued hostility with this supervisor. When he recently ran into this individual, he got the “cold shoulder” from him. Paul said, when he
reflects on this situation, he realized that the perceived wiring problem was not a life safety issue, and was not worth the hardship it caused him in the end.

Paul also shared that he had a particularly difficult time getting along with another captain at the station, and described this individual as “always on him.” He felt that this captain believed he did not deserve the job. He shared his third day of duty with another fire captain and mentioned he enjoyed working with him. This captain was relatively new to the station as well. They both liked getting out, training, and becoming familiar with the response area.

He felt he was treated like an outsider because of his previous non-CAL FIRE service background, as well as being promoted due to the 2011 fire season testing process. He reflected on a conversation with his chief regarding his station and felt the chief was not completely honest with him and was misleading regarding the assignment. In his opinion, he struggled to maintain effective working relationships, particularly with two of his supervisors.

When questioned about how effective he was, Jim said, he was successful while working on emergency incidents. He was very confident in his skills and abilities, and learned from his experiences, given the fact that they responded to numerous emergencies each day.

**Summary of Interview with Gerard,**
**February 22, 2012**

This was by far the most challenging interview of all the participants. This interview occurred in person at a functioning fire station office, fairly close to the rest of the crew who were eating dinner. Gerard’s focus was interrupted by the proximity to
others in the fire station, and a fire captain who briefly used the computer in the office. He used a volume that was unable to record. Immediately following the interview, thoughts on the conversation were digitally recorded. Additionally, due to his low volume while speaking, the researcher had to listen intently to hear his responses.

Gerard had worked as a firefighter for CAL FIRE in both schedule a and schedule b in another unit prior to being promoted. He said he worked at busy stations in the past and that he had a lot of "on the job" training. His current schedule a station had a great emphasis on daily training due to the fairly low call volume.

He shared each day with a fire captain because two apparatus are assigned to the station; however, sometimes, he was the company officer on his apparatus. He said, because all of the firefighters at his station were very experienced, and each had a wealth of knowledge, he really did not have to supervise them. He discussed how the chain-of-command worked at his station.

When asked about the relationships he had formed, he said it was a typical firehouse and they created a family environment and was like their second home. When asked specifically about the relationships he had developed with his supervisors, he stated they all were very helpful and approachable. However, he did not describe any components of a mentor relationship. He modestly expressed his effectiveness in his new position.

Summary of Interview with Bill, Thursday February 23, 2012

Bill worked for four years as a volunteer firefighter for a municipal fire department and was a seasonal firefighter for five years in one CAL FIRE unit, prior to
promotion to an FAE. Bill’s first two fire seasons were at a two-engine schedule b fire station, and his last three fire seasons were on a CAL FIRE helicopter. He attended the COA during the beginning of the fire season, so he essentially arrived at his new assignment one and a half months after everyone else.

Originally, Bill believed he was going to drive a helitender, an apparatus that carries fuel and equipment to support a helicopter, out of one of CAL FIRE’s helitack bases, a fire station that houses a helicopter, personnel, and equipment. His new assignment was in a unit different from where he worked as a firefighter. During the COA, Bill was under the assumption he was not actually going to perform many of the skills he was learning, due to his helitender assignment. However, on graduation day, he learned that his actual assignment was at a busy two-engine scheduled b station.

With his new assignment, Bill would be in a supervisory position. When Bill first arrived at his new station, he said,

There was another guy that was there covering the engine that I was going to staff, and literally I got a two-minute, nothing is wrong with the engine, I have to get out of here to go pickup my kids. He pulled his stuff off the engine, and I had not even gotten a cup of coffee yet, and I was on the engine.

That morning he talked with the captain in the office for a few hours and he expressed how helpful the conversation was for him. Bill’s shift was scheduled behind another FAE who was injured. After three weeks, Bill was assigned a different schedule, because the injured employee returned. Bill’s new shift shared two out of three days with a captain. Bill described his new supervisor as very knowledgeable and experienced with fire attack. Bill said, “He spent a lot of his time behind the computer researching fuel moistures around the state, as well as, reading fire weather forecasts.” The captain had
worked in this particular unit for a long time. It was obvious his firefighters respected him and never questioned him on the fireline. However, when office or cleaning supplies were running out, he did not do that part of the job. Bill stated,

When it came time to do important paperwork, or for me to do stuff like travel claims, MRTs, getting the refrigerator repaired, doing a work order, he wasn’t the guy that sat you down and said this is how you do it, here is an example, here is a copy. He wasn't super helpful in this regard, but luckily there was an LT (limited term) engineer, I was able to look over his shoulder and learn how to do a lot of the paperwork stuff.

This captain delegated the administrative responsibilities. Bill and the other engineer also had responsibility for facilitating trainings for the battalion’s personnel, typically twice a week.

Bill attempted not to disrupt what personnel were doing since the station functioned effectively without him. At his assigned station, there were very experienced firefighters; most of them had been doing the job for the same amount of time, and some longer, than Bill. He said,

I didn't have to teach anyone the basics, because we didn't have any new firefighters. Most of them had worked there three to four years, I’m not going to go in there and say, oh you are doing this wrong, even though there were things that they were doing that I didn’t agree with; some of their tactics.

Bill felt his job was fairly easy because of the experience of his firefighters. They knew their jobs and the response area and all he had to do was drive.

When he came into the station, the morale was very high because they were busy fighting fires. However, once he arrived, the number of emergency responses slowed down. When calls decreased, he said, people got bored, angry, and their true personalities came out. He said,
It's not so much about fire attack, and going to calls, and driving. It’s more about the personal relationships that you have at the station; because 80% of the time you're not doing those things. You're at the station, having meals, you're conversing, you're watching TV, you're playing games together, so you’re a more effective employee if you are able to do those things, and able to be social.

When asked about the type of relationship that Bill developed with his fire captain, he said they developed a good relationship, and he could call him if he needed him. However, it was not as if he would go golfing with him. As the season went on, Bill could tell that his captain was happy with his performance, and the firefighters felt he was doing a good job. He said he received good performance evaluations, and his captain gave him some words of wisdom at the end of the fire season.

When asked about how effective he felt during the fire season, he said he felt he was effective. He felt the COA did a good job of preparing him. Bill’s goals, after graduating from the COA, were to not get himself hurt, not hurt anyone else, and not damage any equipment. He felt successful because he attained his goals. After recently speaking with his chief, he believes he is returning to his station. He said, he is hoping to go back because he had already developed relationships with his captain and the firefighters.

Summary of Interview with Jack, February 25, 2012

Jack was a firefighter in one CAL FIRE unit for five fire seasons prior to becoming an FAE. For his first four fire seasons, his assignment was at an air attack base, a facility responsible for supporting firefighting aircraft. During his fifth fire season, he was assigned to a schedule b fire station. For the past 17 to 18 years, he has been a paid-call-firefighter. He was also on active duty in the Navy and the Reserves. Jack worked in
a new unit after graduating from the COA. He began working at his two-engine schedule b station in July, due to additional staffing needs during peak fire season.

His assigned shift was shared with a captain for two out of three days. On his third day, he was one of two engineers responsible for four firefighters. His captain explained his expectations of his performance. This included discussing his responsibilities from the standpoint of the unit, the battalion, and the station. His captain specifically discussed the chain-of-command and its importance. He was expected to take care of the firefighters; for example, maintaining their timesheets and performance evaluations. He described his experience as a new FAE as, “It was a little intimidating; it seemed to be like you were under a microscope.”

When asked about his relationship with his captain, he said, it was, “kind of hard to read him at first, because he is kind of quiet.” After about three weeks of feeling somewhat out of place, he said, “I really had to kind of push the issue, and say, hey, I am here and I want to learn stuff.” However, after a few more weeks, he said, “We started getting into a groove and it worked out better.”

He shared how the rigorous physical training program employed at this station challenged him. However, in the end, he felt like it benefited him and his relationships with the others, because he was able to gain their respect due to the efforts he put forth. He also shared how two firefighters, in particular, challenged him. He said,

There were two firefighters that, you could tell that they really didn’t like me, because I was new. They were "caps" boys, and, finally, I had to put my foot down and say, hey look guys, here is the deal, there is a chain of command… I had to sit down and tell them, this is how it is, without stepping on anybody’s toes, and pissing anybody off, and not being weak about it either. There is a fine line between being that asshole boss and being the boss that is friends with everybody, because you don’t want to be that guy either.
Jack described the time and effort it took to make these two firefighters realize he was part of the chain of command, and they needed to work with him to get their jobs done.

In reflection, he believed that the fire season went well, and he said, “I felt that I did a fairly decent job.” He said his captain gave him a good performance evaluation at the end of the fire season. He also said that his captain would “like to see him up there again.”

**Summary of Interview with Patrick, February 25, 2012.**

Patrick worked in one CAL FIRE unit for six fire seasons prior to promotion to an FAE in a new unit. He had worked at schedule b fire stations, as well as a, one schedule a station during one winter. He had been a sergeant in the military, prior to his fire career. His new assignment was at a two-engine schedule b station and he was always the company officer on his engine. He worked two days with his captain and one day with another engineer.

When asked if anyone discussed their expectations of him, he stated, “Captain and chief both told me what they expected, you know, and the permanent engineer, he helped me out a lot.” The relationship developed with his captain was “Almost like a father-son bond, really, I feel that he has taken me under his wing, and tried to teach me. He knows when to discipline me and when not to . . . I felt like he led by example and it is really easy to follow somebody like that.”

When questioned if there was anything that eased the challenges he experienced during the fire season, Patrick said,

That’s real obvious to me, as far as what station you go to. If you have good captains, that want to make you a better leader, and they are striving for you to take
the next step. Because that is what they should be doing . . . some supervisors, they are there to make you a better person.

Patrick further elaborated, “I think that is a huge difference, and it starts from the top. If you have good people in your chain-of-command above you it is going to help you, and help your career.” He felt that his captain took interest in his career, and he said he was “Still on good terms with him, when I go up there for that class he lets me stay at his place. I felt that he took me under his wing and tried to help me advance.”

When asked about how effective he felt he was during both emergency responses and around the station he said,

For being a first year engineer, I feel like I did a good job, obviously not a journey level engineer. As far as responding to calls and stuff, I felt we did everything we could possibly do. I know that I have made mistakes, but it is just from lack of experience there. I am not one of those types of guys that hides from the mistakes that I have made. All you can do is hope that you learn from them, and don’t repeat them.

Summary of Interview with Charles,

Charles worked in one CAL FIRE unit for six fire seasons prior to his promotion to an FAE. His first three seasons were at a schedule a station and his last three were at a schedule b station. He attended the COA and was given a new assignment at a two-engine schedule b station in a new unit. His assigned shift was shared with two fire captains. The captain he worked with one day a week had the greatest impact on his experience.

When asked if he had anyone discuss his or her expectations of his performance, he said,

Well, I was there for a couple of weeks, and I was sitting down with the station captain, and he was more callous of the whole hiring process, was extremely
against how the unit hired in; especially guys coming from out of the unit. It was not necessarily my fault; I was just doing what everyone else is doing statewide. I finally had to say look, what is your expectation. I don’t want to come in here being Mr. Know It All, but I also want to earn my respect here, and I don’t want it to be so negative . . . did that do any good, any bad, I really don’t know.

It was obvious from the beginning of the interview that Charles had a difficult experience due to this particular captain. Because Charles did not fully respond to the question, he was asked once again if his captain ever communicated expectations of his position.

Charles said,

Well, yeah, do as I say, not as I do, always use a backer, that was about it you know. Really, it is just all about understanding that engine. You need to know that in and out, and obviously you are not going to do that, in literally, it was three months, that I was there. . . . At first it’s just rough because you are so uncomfortable, I literally felt like I was a temp employee . . . like I still don’t really belong there . . . yeah totally rough.

He further elaborated on his experience and the challenge of dealing with not feeling accepted, he said,

It was not necessarily my fault coming into the position that I was in. It was offered to me, I tested, I interviewed, I scored, hey you want it, I went through a six week academy, I did it, I passed it. I don’t know why I would have any negativity held towards me.

Charles was asked about how effective he was during the fire season. In his response, he had a difficult time explaining himself. Due to this difficulty, a follow up question was asked, regarding how well he felt he did personally. He said, “As far as, from a training standpoint and learning a little bit more, and getting a little better experience, no, but other stuff, just the standards, yeah definitely, I don’t feel like I didn’t do a good enough job.” His description was still somewhat vague. He also described his feeling of not having any direction, or understanding of what needed to get done around the station in the captain’s absence. He said, “You were just there by yourself, and so here you were,
with the two guys that are on your engine.” He felt out of place during the entire fire season and was not fully accepted by this particular captain. His final remarks were,

I come in with open arms with everybody, and I want a great relationship with everybody, and with "cap" too, the guy has a lot of experience. I would love to pick his brain daily, he has got three years left now, I would love to just take everything from him. Guy like him make me your protégé, leave the fire service in good hands, I wish that, maybe next time.

Discussion of the Interview Findings

Once all of the interviews were completed, it was immediately apparent that two of the seven participants had created mentor relationships with their new supervisors. Both Patrick and Jim described their newly formed mentor relationships as supporting both the career and psychosocial functions that Kram (1985) discussed in her book *Mentoring at Work*. The language both Patrick and Jim used to describe the relationships they formed with their supervisors was extremely positive. Jim shared stories of how his supervisor coached him, provided him with challenging assignments, and would provide him protection when he needed it. He described situations in which his captain acted as a role model, accepted and confirmed his skills, counseled him, and provided him with friendship. Patrick described experiences with his captain as providing him with sponsorship, greater exposure and visibility, and coaching. He also described his captain as a good role model and counselor. Lastly, he said the relationship that developed was like a father-son bond.

Each of the participants developed relationships to varying degrees with their supervisors throughout the fire season. Some of the participants did describe a few of the
mentoring functions that Kram (1985) discussed as being present in their relationships. However, they did not form these relationships to the same degree as Patrick and Jim.

The participants identified two challenges in developing mentor relationships. First, Bill, Jack, and Charles mentioned the short length of employment as a limiting factor to developing relationships. The timeframe each spent with his respective supervisor was approximately three months. However, each individual worked a maximum of two days a week with his captain. Charles said in relation to the short duration, “I know that happens, someone is going to warm up to you, you are going to get along later.”

The second obvious challenge was that: prior to the 2011 fire season, the California State Personnel Board examination process was new and different from previous years. Due to this change, there were many new FAEs promoted, and, in some situations, displaced a previously employed FAE. As a result, many of these new FAEs were promoted into units other than their own. Because of this process, six out of seven of the participants who participated in this study worked in new units.

In response to the first research question of this study, regarding the relative availability of mentor relationships, two out of the seven participants developed them. The informal mentor relationships these two created was made apparent with the words they used to describe their experiences with their supervisor. Essentially, the relative availability of mentor relationships during this study was two out of seven.

In attempting to find an answer to the second research question, the evaluation was significantly more challenging, and somewhat less obvious, requiring the researcher to review the digital recordings and read the summary/transcriptions numerous times. Did
the development of a mentor relationship affect an individual’s perception of his or her effectiveness?

In both of the cases where the participants had formed obvious mentor relationships, each expressed a high perception of effectiveness during the interviews. However, in some cases where the individuals did not form a mentor relationship, they also stated a high perception of effectiveness. After reviewing the data, and grouping it into common themes, the researcher found that the participants processed their experiences through the four components of self-efficacy that Bandura (1997) described. Enactive mastery, vicarious experience, verbal persuasion, and physiological arousal are the components he states comprise one's self-efficacy (Bandura, 1997). The researcher found that these components were the common themes in which each of the participants were able to reflect on their effectiveness.

**Enactive Mastery**

Three of the participants involved in the study, had been in a leadership position in the military prior to employment with CAL FIRE. Each of these three individuals expressed how this helped them to accomplish the requirements of his new job. Patrick stated, “I think that I had a little easier transition because I was in the military. I was a sergeant, I was in charge of people and I was use to having to command people in different situations”. Due to the important leadership component of the FAE position, these individuals reflected on their successful prior experiences to assist them with their current position. Charles said, “Luckily I come from a military background and I can adapt.”
Attending and completing the COA was a mastery experience that each of the participants had in common. This experience influenced all of the participants in some way. Each participant held a personal view of what went well, and what could have improved, during his experience during the COA. When Jim reflected on his experience, he said,

"You learn a lot about how to pump and operate an engine, that's just a fraction of the engineer's job; just a very small part is actually driving. . . . We went pretty much 100 percent in depth on pumping and operating, which is really good because as an engineer that’s your main job . . . on an incident. That's not your main job as far as the entire scheme of things, as far as the station life, but when you are on an incident and your firefighters and chiefs and captains are looking at you, you need to know how to flow water and how to operate everything. As far as the other 99 things you have to do on a daily basis we could have been there for six months and not learned everything."

Patrick described his experience with the COA as,

"Overall it was a great experience, they can't teach you everything. One could wish and guess, what they should put in the COA to make us ready, but there is a certain part of me, that tells, if you are a natural leader, it is already in you. It is hard to put that in somebody, if he doesn’t already have it. You give people the training and either they step into the role or they don’t."

**Vicarious Experience**

Bill recounted his diverse experience of working with many different supervisors while employed with CAL FIRE. He said he consciously thought about the actions and past decisions of a previous supervisor that took interest in his career. Bill reflected on Jerry, who was his captain for four years. He said,

"I tried to mold myself after him, because I had a lot of respect for him, and I know that pretty much everyone that he worked with, respected him, and he was real knowledgeable, he had a way about him, about getting people to do things without having to be the boss. He was good at being your friend and your boss at the same time."
Bill considered Jerry a mentor, and created success in his new position by considering the vicarious experiences he had with this influential individual. Bill said when making difficult decisions he would think to himself,

What would Jerry do, in this situation, and that is how I came up with a plan of attack in how to deal with things. I was just asking myself, how would those supervisors handle it? . . . That helped me choose how I wanted to lead, and be remembered by those firefighters I was supposed to lead.

Bill also considered how effective he was by taking into account what vicarious experience he was providing for his subordinates. He said that he evaluated his performance based on their views. He remembers considering to himself, “Do you want people to say, yeah, I'll work with that guy any time, or do you want to be one of those supervisors that nobody can stand working with?”

Jim discussed learning through the mistakes of other FAEs during the fire season. He said there were FAEs in his unit, who had a more difficult time than he had, and commented on this experience, “It kind of takes the spotlight off you when somebody else screws up. It's like shark infested waters and somebody just pricked you with a pin. They smell blood and they're on you.” He recognized the failures of other FAEs in his unit, and made conscious decisions not to mimic their behaviors.

Verbal Persuasion

While the researcher never asked specific questions regarding participant's performance evaluations, Jim, Paul, Bill, Jack, and Patrick, each discussed the content of his evaluations. The feedback that each participant received from their supervisors allowed them to form a fully conceptualized opinion of their effectiveness. This, verbal persuasion, affected each of the individual’s perception of his effectiveness. Most
interestingly, Charles had a difficult time communicating his perception of how effective he was. Charles described his callous supervisor who never accepted him and said, “He made you feel down, when he would explain stuff, or ask you a question that he knew you didn’t know the answer to, or at least the answer that he wanted to hear, he made you feel stupid about it.” Charles received verbal feedback throughout this fire season that was contradictory to the feedback that he had received, in his past, regarding his performance. It was potentially due to this contradiction, that Charles had difficulty processing his experience, and communicating his effectiveness. Due to the negative verbal feedback originating from his supervisor, Charles still struggles with conceptualizing his performance as a new FAE. When describing how effective he was, he said,

That is hard to say, because I don’t know, yeah I was there, I didn’t break anything, I didn’t get anyone hurt, I did what was asked, but no more or no less. I am a "do more" individual. You get those guys that just do the minimum, I hate that, when I feel like things are out of my hands and I can’t run with the ball, or move forward with stuff, or advance. I get frustrated, and I think I just am harder on myself, thinking that I can do better, or I can do more, or I can show more. I don’t know that is a hard question right there.

When Patrick reflected on his effectiveness, he included verbal persuasion from his supervisors in his comments. He said, “I was happy with myself and my performance and "cap" told me that he was happy with my job, and chief told me the same too. I didn’t do too bad of a job because I know chief won’t just say that to make somebody happy.”

Physiological Arousal

Jim described his mental state during his first fire season, “As a seasonal engineer with CAL FIRE, you have the most responsibility with the least amount of
“experience.” Jim reflected on his thought process while being in command at incidents. He described his feeling of having great responsibility, specifically stating,

I roll up on an incident, I can order tankers, dozers, $2 million worth of equipment in 30 seconds and I'm responsible for that . . . like you're just being thrown into managing emergencies, that you may or may not have been to before as a firefighter. For me, just the leadership portion of it was kind of a shock. One season, you are doing what you are told, the next season you’re telling. I have got three guys on my engine and they are my absolute number one responsibility, they are in my hands. I'm completely responsible for everything that happens to us.

Bill reflected on how he processed his thoughts prior to his transition,

I was excited and at the same time kind of scared. . . . I had mentally prepared myself, looked at maps, and studied the area for driving the helitender, and now I have to go 360 degrees in couple of days, now I am actually going to be on an engine with firefighters, and have responsibility.

Patrick described the challenges of his transition as mental ones,

Going from workhorse to supervisor, it’s a whole different thought process. . . . When you become an operator you feel the responsibility that you have. It will make you think differently, all of a sudden you have two people that are depending on you at that moment, to take charge; that thought process is the hardest transition for any firefighter, going from firefighter to engineer.

When asked what Charles felt was most challenging about his new position he said, “. . . getting used to being the one . . . it gets real complex . . . I could see it getting a little hairball, ya know a little chaotic, a lot to think about.” Additionally, in Charles’ situation, with the added burden of not feeling accepted by his supervisor, he said, “It throws you off, because you are not focusing on what is in front of you. That is the same as the stuff that happens at home, and bringing it to work.”
Discussion of the Components of Self-Efficacy in Relation to Perception of Effectiveness

Bandura’s (1997) four components of self-efficacy served as a functional avenue in which individuals formulated their perception of effectiveness. The development of mentor relationships provided a positive filter in which these individuals viewed their perception of effectiveness. Current mentor relationships were found to have a direct affect on three out of four of Bandura’s components: vicarious experiences, verbal persuasion, and psychological arousal. While mentor relationships can and do affect individual’s perception of enactive mastery, these previous experiences do not relate as directly with the effects of a current mentor relationship. A mentor relationship, or lack of one, affects an individual’s interpretation of their experiences.

Presentation and Discussion of the Administered Occupational Self-Efficacy Scale

To answer the third research question originally formulated (Do individuals that have developed mentor relationships have greater occupational self-efficacy than those who do not develop these relationships?), the researcher carefully reviewed the responses of the administered OCSEFF created by Schyns and Von Collani (2002). Participants responded to the 19 questions in the OCSEFF. Each question had a Likert-type scale response associated with it. The range was one to six, with one being completely true, and six being not true at all. The numerical responses of each participant to each question are displayed in Table 1. The numbers in Table 1 with asterisks are
Table 1

Numerical Responses of Each Participant to Each Question

| Names   | 1   | 2*  | 3*  | 4*  | 5   | 6*  | 7   | 8*  | 9*  | 10  | 11  | 12  | 13  | 14  | 15  | 16  | 17  | 18  | 19  |
|---------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Paul    | 1   | 1   | 3   | 1   | 5   | 2   | 2   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 1   | 2   | 2   | 2   | 2   |
| Patrick | 2   | 1   | 2   | 2   | 3   | 1   | 2   | 1   | 1   | 2   | 2   | 2   | 1   | 2   | 2   | 1   | 2   | 1   | 1   |
| Charles | 1   | 2   | 2   | 2   | 3   | 1   | 2   | 1   | 1   | 1   | 3   | 2   | 2   | 2   | 2   | 1   | 2   | 2   | 2   |
| Jack    | 3   | 1   | 2   | 1   | 2   | 1   | 4   | 1   | 1   | 2   | 2   | 2   | 2   | 2   | 2   | 1   | 1   | 2   | 1   |
| Jim     | 2   | 2   | 2   | 1   | 2   | 1   | 2   | 1   | 2   | 2   | 2   | 3   | 2   | 1   | 1   | 2   | 2   | 3   | 2   |
| Gerard  | 3   | 2   | 1   | 1   | 2   | 1   | 4   | 1   | 2   | 1   | 2   | 3   | 2   | 3   | 2   | 2   | 2   | 2   | 2   |
| Bill    | 4   | 2   | 2   | 2   | 2   | 6   | 1   | 1   | 5   | 2   | 1   | 3   | 2   | 2   | 2   | 1   | 3   | 2   | 2   |

associated with questions, which required reverse scoring, due to the phrasing on the OCSEFF. Table 2 displays the averaged scores for each participant.

Patrick and Jim were the two participants that created mentor relationships with their supervisors during the 2011 fire season. Their responses placed them 2nd and 5th out of the seven participants, respectively. Paul and Charles were the least successful in developing mentor relationships with their supervisors, and interestingly, in conflict with the original hypothesis, they rated themselves highly in the administered OCSEFF.

The design of the study was intent on potentially revealing corroborative evidence, between both the administered OCSEFF and the data gathered from the interviews. The results of the scale were not specifically helpful in its original intention.
Table 2

*Average Scores for Each Participant*

<table>
<thead>
<tr>
<th>Names</th>
<th>Averaged Scores</th>
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<tbody>
<tr>
<td>Paul</td>
<td>1.63</td>
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<tr>
<td>Patrick</td>
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</tr>
<tr>
<td>Charles</td>
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</tr>
<tr>
<td>Jack</td>
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<tr>
<td>Jim</td>
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<tr>
<td>Gerard</td>
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</tr>
<tr>
<td>Bill</td>
<td>2.37</td>
</tr>
</tbody>
</table>
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study investigated the experiences of newly promoted FAEs within CAL FIRE. Provided is a description of the organization, the FAE position duties, and mandated training prior to appointment. A presentation of the literature published regarding the construct of self-efficacy is included, as well as, a summary of the literature discussing mentor relationships, particularly, in the workplace. While literature on mentoring in the fire service exists, and is cited within this document, it is limited in publication. Overwhelmingly, the literature in the field that exists is written from a top-down perspective, and does not fully discuss the point-of-view of the newer individuals within the organization.

The design of the investigation was intent on eliciting the perspective of the new FAE. Specifically, its goal was to develop a greater understanding of the availability of mentor for the new FAE. As well as, investigating the effect that mentor relationships have on an individual’s self-efficacy in his new position.

The use of personal interviews, essentially case studies, with the individuals who had recently made this transition provided insight into their experiences. The researcher conducted the interviews in a semi-structured format to gain perspective on
similar topics and allowed the dialogue to evolve. The research documented the experiences of seven new FAE’s within CAL FIRE. After the interview, each of the participants took the OCSEFF, a previously utilized instrument testing self-efficacy in a given occupation.

Once the interview data was gathered, it was summarized/transcribed. The researcher reflectively analyzed the interviews and discovered common themes, similarities and differences, within the participant’s responses. It was found that each of the participants were able to discuss their perception of effectiveness through the four components of self-efficacy that Bandura (1997) discussed. The individuals that had formed mentor relationships during their first fire season as an FAE spoke the most highly of their experiences. The data from the OCSEFF was tabulated and averaged, providing unexpected results.

Conclusion

Past research (McKeown, 2009) had identified specific challenges and recommended possible solutions in easing the transition from firefighter to FAE within CAL FIRE. One of the recommendations, McKeown suggested, was a chief officer ride-a-long program that could essentially mentor new FAEs. As well, prior to the 2011 fire season, the unit chief contacted in this study recommended that his senior employees engage in mentoring the young future leaders of the organization. While there was no formal program in place, it was a call for informal mentoring to occur.

These two sources were the researcher’s initial motivation for further investigation into the concept of mentoring. It was the intention of this research to
develop greater understanding of the experiences of CAL FIRE’s newest leaders from their perspective. This study documented what the experience was like, for seven individuals who had recently made the transition to FAE, within the organization. While each of the individuals who participated had different experiences, during his first fire season as an FAE with CAL FIRE, two of the participants created mentor relationships that had positive impacts on their perception of effectiveness. Each of the participants shared his story through discussing the experiences they had during the 2011 fire season. There were some interesting similarities found among the participants.

Each individual determined his perception of effectiveness through the components of self-efficacy (Bandura, 1997). Through the structure of Bandura’s (1986) social cognitive theory, each individual thoughtfully evaluated his performance. The construct of self-efficacy, and its components, formulated how each of the participants evaluated their experience. Newly formed mentor relationships positively affected two individual’s sense of effectiveness. These mentor relationships directly influenced three of Bandura’s components of self-efficacy: vicarious experience, verbal persuasion, and psychological arousal. While the administered OCSEFF did not find corroborative evidence, enough qualitative evidence documented the individual’s experiences and provided insight into the relationship between mentorship and self-efficacy. The participants provided numerous cases of anecdotal evidence that formulated a basic understanding of their experiences.
Recommendations

It is the researcher’s recommendation that further investigation be conducted on the role that mentorship has on new FAEs within CAL FIRE. This research if administered on a greater scale, and with increased numbers of participants, could more fully develop the department's understanding of these relationships and their effects. In addition, future research should be conducted during a time when the hiring process of the department is more consistent.

The researcher also recommends that the organization formally communicate to newly appointed FAEs the importance of seeking out individuals that will provide them with a relationship that will enhance their experiences. By explaining the importance of finding individuals who are available to act in this capacity, the transition to FAE may potentially be eased. If new FAEs understand the role these individuals serve, then these mentors can more fully enhance the knowledge, skills, and abilities for successful job performance.

It is also the researcher's recommendation that the organization continue to communicate to individuals, who serve as supervisors and leaders, the importance of reaching out to new company officers. Through forming relationships, these members can share a lifetime of wisdom and experience based judgment; providing young leaders an avenue to meeting the demands of the job today. The knowledge they gain now will not only affect their careers, but the future of the entire organization.
REFERENCES


*Journal of Counseling & Development, 64*(2), 156.


List of topics covered in the CAL FIRE Company Officer Academy (COA)*

- Basic Driving
- Emergency Vehicle Operations Course
- Off Road Driving
- Apparatus Pumping Procedures
- Driving Skills and DMV Drive Test
- Preventative Maintenance
- Air Brake Use and Adjustment
- Pump Theory
- Basic Hydraulics
- Foam
- Incident Command and Control
- Strategy and Tactics
- Report on Conditions
- Firefighting Equipment Capabilities- Engines/ Dozers/ Handcrews/ Aircraft/ Water Tenders
- Handline Construction
- Firefighter Survival
- Wildland Urban Interface Firefighting
- Map Reading and Interpretation
- Structure Fire- Initial Attack/ Command and Control/ Apparatus Placement/ Operations/ Resource Requirements/ First in Officer Responsibilities
- Supervision I- Leadership and Management Considerations
- Firing Operations
- Sand Table Exercises
- Fire Origin and Cause Investigation
- Wildland Fire Behavior- S-290
- Lessons Learned-Firefighter Fatalities

*Source: CAL FIRE Company Officer Academy Student Manuals (four 3-ring binders of course material for attendees of the CAL FIRE Officer Academy held on February 23, 2009 – April 5, 2009 at Ione, California).
California State Fire Marshall courses required for fire officer certification consist of:

1. Fire Command 1A: Command Principles for Company Officers.
2. Fire Command 1B: Incident Management for Company Officers.
3. Fire Command 1C: I-Zone Fire Fighting for Company Officers.
5. Fire Instructor 1B: Instructional Techniques, Part 2.
7. Fire Management 1: Management/Supervision for the Company Officer.
10. I-300: Intermediate ICS

Experience [one (1) of the following two (2) options]:

(a) Option 1.
   1. Have a minimum of two (2) years full-time, paid experience in a California fire department as a fire fighter performing suppression duties.

(b) Option 2.
   1. Have a minimum of four (4) years volunteer or part-time, paid experience in a California fire department as a fire fighter performing suppression duties. (State Fire Training, 2008, pp.132-133)

REFERENCE