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Leadership Strategies for Retaining Mariners Aboard State Maritime Academy Training Ships

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Walden University

College of Management and Technology

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Augusta D. Roth

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Walden University
2018

Abstract

Leadership Strategies for Retaining Mariners Aboard

State Maritime Academy Training Ships

by

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MBA, University of Phoenix, 2008

BS, Texas A&M University, 1996

Doctoral Study Submitted in Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

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Abstract

The shortage of qualified merchant marines in the United States requires State Maritime Academy (SMA) leaders to develop competitive retention strategies to retain merchant mariners aboard training vessels. The purpose of this single case study was to identify retention strategies that U.S. SMA leaders used to retain mariners aboard training ships. The conceptual framework of this study was Vroom's expectancy theory. The study participants consisted of 5 SMA leaders overseeing the mariners aboard a training vessel. Semistructured interviews and review of SMA documents pertaining to employment strategies provided the study data. The data analysis included collecting and coding data, and using the constant comparative method to identify the themes. Four themes related to successful retention strategies emerged from the data analysis: (a) the monetary value of employment and benefits must be comparable to what is available in the maritime industry, (b) professional development is necessary to maintain maritime industry credentials and improve employee performance within the organization, (c) recognition and understanding of the uniqueness of being a mariner as a profession is important to mariners, and (d) transparency and trust increase communication and improve retention. The findings of this study contribute to positive social change by providing best practices for SMA leaders to integrate retention strategies to improve employment satisfaction, enhance the training of mariners on U.S. waterways, and increase longevity of qualified mariners, which could create a healthy and positive work environment.

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Dedication

I dedicate this project to my supportive family. My patient son and devoted parents have provided me with stability through the stressful and challenging times of my life. They have also brought me happiness and joy. Without my family, I could not have found the success I have had in my life. Thank you for blessing my life.

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Section 1: Foundation of the Study

Approximately 90% of global trade conducted is via merchant vessels in navigable waterways (International Maritime Organization [IMO], 2015; Mori, 2014). The United States has over 3.5 million miles of such waterways that require U.S. merchant mariners to be aboard U.S.-flagged vessels to ensure safe navigation, according to the Jones Act (Diggs, 2014; U.S. Environmental Protection Agency, 2013). However, the shortage of mariners to operate vessels globally (Berzins & Barbare, 2013; Maritime Administration, 2015) affects the quality of mariner training at the State Maritime Academies (SMA; Saeed, Bury, Bonsall, & Riahi, 2016), because few experienced mariners are available to train cadets at the SMA. Merchant mariner cadets in officer training must meet substantial training requirements (Mori, 2014). With the 2010 Manila amendments by the IMO, which is part of the UN's Standards of Training, Certification, and Watchkeeping Amendments in the United States, the amount of required mariner training has increased (Mori, 2014). This increase in training and regulatory requirements to create a safer work and global environment requires that mariners meet additional qualifications and standards necessary to protect cargo, ships, and lives at sea (Bruno, 2013).

Background of the Problem

Mariners must learn the industry's changing national and global regulations, endure work rotations that require weeks or months of absence from home, and undergo costly training to acquire certification that maintains their industry credentials for protecting the environment from pollution and hazardous practices (Caesar & Cahoon,

2015). Typically, mariners find maritime training opportunities through an undergraduate or postgraduate curriculum offered at a U.S. SMA (Lau & Ng, 2015). But the global shortage of mariners and the increased training requirements present a possible retention issue for SMA leaders.

The retention of experienced mariners at academic institutions affects the quality and success of each institution (Hundera, 2014). SMA leaders' emphasis on retaining experienced mariners to train cadets could further improve the skills needed to protect the crew, cargo, vessel, and environment from the hazards of transporting goods at sea (Romelczyk & Becker, 2016). By focusing on retaining the highest quality of mariners to work aboard seagoing training vessels, SMA leaders may improve the education and employment opportunities for the upcoming mariners in the United States. Therefore, the focus of this study was on determining the retention strategies that SMA leaders use to retain qualified mariners as educators aboard training vessels.

Problem Statement

Despite the quality of education received in SMA maritime degree programs and the earning potential of maritime employees (Gonzalez, Semjonovs, Bogdanecs, & Ozola, 2014), training facilities find it difficult to retain qualified mariners as educators onboard training vessels (Caesar, Cahoon, & Fei, 2014). The global shortage of international mariners has been estimated at over 40,000 and increasing (Berzins & Babare, 2013), and a shortage in 2025 has been predicted of nearly 9,000 U.S. mariners needed to navigate U.S. waterways (Maritime Administration [MARAD], 2015). The general business problem is the growing shortage of mariners, which pressures U.S. SMA

leaders to find creative retention strategies that keep experienced mariners employed to train cadets about the safe navigation of maritime vessels at sea (MARAD, 2015). The specific business problem is that some SMA leaders lack successful strategies for retaining qualified mariners aboard training ships and fail to support the local maritime demands for skilled mariners.

Purpose Statement

The purpose of this qualitative, single case study was to identify successful retention strategies that U.S. SMA leaders use to retain mariners aboard training ships. The target population was federal- and state-funded U.S. SMA leaders who use strategies to retain mariners aboard training vessels. The study can contribute to social change by providing mariners who train cadets at SMA with greater employment satisfaction and reducing the shortage of mariners on U.S. waterways. Retaining experienced mariners aboard training vessels may also make the job market more competitive for graduates seeking employment in the maritime industry because of the professional training received due to the successful retention strategies identified in this study.

Nature of the Study

There are three methods of empirical research: qualitative, quantitative, and mixed methods (Merriam, 2009). Qualitative research is an explorative thought process that allows participants to reveal their perspectives on situations they have experienced personally (Yilmaz, 2013). Quantitative methods require analytical processes to test hypotheses based on existing theories (Yilmaz, 2013). Mixed methods combine qualitative and quantitative methods in a complex research scenario (Morse & Niehaus,

2016). Quantitative and mixed methods were inappropriate for this study due to the exploratory nature of the research question, which did not involve testing hypotheses. The use of qualitative research in this study allowed for an investigation of the successful retention strategies used by SMA leaders. The identification of SMA retention strategies provided insight into how best to retain mariners on training vessels.

The three research designs possible for this qualitative study were (a) ethnographic, (b) phenomenological, and (c) case study. Ethnographic design involves a researcher who immersed in to a system to collect data by experiencing a phenomenon (Proudfoot, 2015). Exploring SMA leaders' understanding of successful retention strategies did not require submersion into the SMA operations to collect data through direct observation; hence, ethnographic design was not an appropriate method for this study. Phenomenological researchers interpret experiences of individuals related to a phenomenon (Rodham, Fox, & Doran, 2015). To answer the research question of this study did not require exploration of the perception of SMA leaders about a certain event. Rather it involved the identification of successful retention strategies used by SMA leaders that create possible best practices instead of a response to an event. Case study researchers collect data related to bounded systems to answer research questions (Ogidan & Lao, 2015; Yin, 2014). In this case study design for retaining mariners, the data exploration followed the purpose established in collecting data on various successful retention strategies used by leaders at SMA (a bounded system) to determine best practices for possible future use in other SMA in the nation. Therefore, a qualitative case study design was the best fit for the objective implied by the research question.

Research Question

The primary research question that guided this study was: What successful retention strategies do SMA leaders in the United States use to retain mariners aboard training ships?

Interview Questions

The following open-ended questions and similar questions used in the interviews of SMA leaders:

1. What successful retention strategies do you employ to retain mariners on SMA training vessels?
2. What makes these strategies successful?
3. How do these successful strategies support the professional development of the mariners?
4. How do you use reward systems to engage mariners aboard training ships?
5. What strategies do you use to ensure mariners aboard training ships have what they need to perform their jobs?
6. What strategies do you use to improve transparency and trust the mariners aboard training ships?
7. What additional information, if any, would you like to share about successful retention strategies that you have not yet mentioned in this interview?

Conceptual Framework

The goal of this study was to identify successful retention strategies used by SMA to retain mariners and determine if they fit the intrinsic and extrinsic incentives for the

employee. Vroom's (1964) expectancy theory (ET) includes valence, instrumentality, and expectancy to identify factors that motivate employee job fulfillment into categories that are essential to employment inspiration. Vroom suggested in ET that the level of effort, performance, and reward influences an employee's decisions about workforce planning, motivation, and development. Furthermore, employment motivation requires continuous negotiation to maintain competitive employment skills (Herbert & Rothwell, 2016). Expanding job-gratification opportunities provides employers and employees with a more complete understanding of employee retention strategies (Choi & Whitford, 2016).

The use of ET as the conceptual framework for this study enabled changing the interpretation of the retention strategies used by SMA leaders into themes of motivation tactics for keeping experienced mariners at SMA. The use of motivation options, such as those suggested by Vroom (1964), Herbert and Rothwell (2016), and Choi and Whitford (2016), may help SMA leaders develop the best retention strategies based on other effective strategies. The information found in this study may link effort, performance, and rewards to better retention rates based on motivation. Business leaders, including SMA leaders, can support employees with policies based on best practices that improve retention and thus organizational productivity (Güss, Burger, & Dorner, 2017). The use of successful retention strategies may build stronger, sustainable, best practices to help SMA leaders meet an academy's retention objectives, train cadets aboard SMA training, and produce better quality mariners with the skills to perform effectively in the international maritime industry and find employment.

Definition of Terms

Expectancy: Expectancy, as used in the ET, is the employees' belief that their efforts will meet performance goals (Baraba-Sanchez & Atienza-Sahuquillo, 2017).

Instrumentality: Instrumentality, as used in the ET, is the employees' rewards gained through meeting set performance goals (Baraba-Sanchez & Atienza-Sahuquillo, 2017).

Merchant mariner credential: The merchant mariner credential is a credential issued by the U.S. Coast Guard endorsing a mariner's qualifications, certificates, and service (Licensing of Maritime Personnel, 2016).

Training, Certification, and Watchkeeping Code: The training, certification and watchkeeping code refers to the training requirements of the IMO (part of United Nations 46 CFR 10.103; Licensing of Maritime Personnel, 2016).

Valence: Valence, as used in the ET, is the employee's satisfaction with the outcome of the performance goals (Baraba-Sanchez & Atienza-Sahuquillo, 2017).

Assumptions, Limitations, and Delimitations

The merchant marine is a competitive and unique profession (Barsan, Surugiu, & Dragomir, 2012). Mariners have various backgrounds and training (Barsan et al., 2012; Caesar & Cahoon, 2015). Focusing on SMA leaders who oversee mariners aboard training vessels affects the study's assumptions, limitations, and delimitations.

Assumptions

In case studies, assumptions are the considerations that allow researchers to complete the data collection with inherent validation that the information used is correct

but not necessarily verified (Merriam, 2009). The basis for assumptions are expectations of truth by accepting historical, social, political, or cultural behavior that reflect honest and common practices during the research (Wolgemuth, Hicks, & Agosto, 2017).

Assumptions are also parameters and practices at the time of the study that are considered true but not proven to be factual by a set process prior to the study (Liu, 2013).

The first assumption was that the participants would answer the interview questions truthfully and without bias regarding the successful strategies used to retain mariners. The second assumption was that questions and answers would fully represent current successful retention strategies employed by leaders at SMA. The third assumption was that the current successful retention strategies retain qualified mariners aboard training ships.

Limitations

Limitations in case studies are the possible weakness that could undermine the research (Yin, 2014). In this case study, the limitations related to the SMA leaders who oversee mariners aboard U.S. training ships. I could not control SMA leaders' level of honesty, understanding, or perception in their responses. I expected that the SMA leaders would seek clarification regarding the interview questions to provide accurate responses. Although the interviews of SMA leaders offered insights into best practices for retaining mariners aboard training ships, the selected interviewees might not have provided information about how to retain mariners at SMA or in commercial industries based on the mariners' interpretations of the imposed retention strategies.

Delimitations

Delimitations are boundaries that researchers set to increase a study's validity, focus the research question, and remove irrelevant subject matter (Siedlock & Hibbert, 2014). For example, Siedlock and Hibbert (2014) focused on SMA leaders' perceptions of mariners aboard training ships and did not include instructors or professors teaching maritime courses offered on shore in the academic portion of the SMA university degree programs. In the United States, there are six SMA and one federal academy funded by Maritime Administration that governs the training of mariners (MARAD, 2015). This study involved an investigation of only the SMA funded by MARAD.

Significance of the Study

The maritime industry transports most commodities globally (Mileski & von Zharen, 2014). Mariners use leadership skills to manage the operation and safely navigate vessels from port to port (Mori, 2014; Theotokas, Lagoudis, & Kotsiopoulos, 2014). The results of this study may lead to a positive change in business practices and a social change in strategies for retaining the most qualified U.S. mariners to educate future mariners in the practices of protecting crew, cargo, and vessels. Investing in retention strategies may retain skilled mariners at maritime training facilities.

Contribution to Business Practice

MARAD (2015) predicted there would be a shortage of nearly 9,000 U.S. mariners by 2025. Because there will not be enough mariners to operate ships, boats, and other waterborne vessels in the global trade industry, a shortage of mariners at training facilities has become a business problem for maritime training facilities (IMO, 2015).

Maritime leaders, such as U.S. mariners, are necessary to diversify global trade and command vessels safely (Theotokas et al., 2014). Successful retention strategies affect the ability of SMA to keep experienced mariners to develop cadets' professional and personal skills.

Implications for Social Change

It is difficult for training facility leaders to find mariners with the leadership and maritime skills required to oversee cadets in higher education (Mori, 2014). Training could provide insight into the practical perspective of retaining mariners who improved trainees' understanding and expectations of the maritime industry (Caesar, Cahoon, & Fei, 2015). This might ease the shortage of mariners and create employment opportunities for mariners in the regional commercial trade. Investing resources in a qualified faculty might lead to a better pool of qualified instructors (Hargis & Gilbertson, 2015). SMA leaders could use the successful retention strategies to improve maritime training and provide competitive U.S. employment opportunities, which can benefit the local, regional, and the national economy. Retention of diverse mariners at SMA may increase future U.S. mariners' understanding of the safety, security, and regulatory concerns in the maritime industry. The U.S. maritime industry's added knowledge may result in safer navigation practices, enhanced situational awareness in emergencies, and an improved delivery service to consumers.

A Review of the Professional and Academic Literature

A literature review should cover recent topics, interests, and concerns in the current research to support future research (Ramdhani, Ramdhani, & Amin, 2014). The

literature review in this study focused on successful mariner retention strategies of SMA leaders in the United States. During the search for academic and scholarly literature, subject topics such as maritime education, maritime shortage, retention, employment satisfaction, and motivation were used to search Google Scholar, Walden's business databases, and Texas A&M Maritime Academy's Clipper Cat for supporting literature. The academic literature focused on other nations' mariners because U.S. merchant mariners are not the majority of mariners globally. There is limited research on retaining mariners in the United States.

The literature for this study includes over 150 sources. Of these 86.9% were peer-reviewed and published since 2013, 5 years before the anticipated completion of this study. Having a requirement for more than 60 current, peer-reviewed sources ensures that the most recent findings and information are used. A literature review should also support the presence of a gap in a research area (Ramdhani et al., 2014). A systematic review of related topics by researchers on the shortage of mariners and the retention of qualified mariners to train future mariners supports research gaps regarding the retention options used to retain mariners, especially at SMA. The literature search also focused on ET and other theories on expectancy and motivation, integrating an understanding of mariners, training facilities, retention, recruiting, training, regulations, job satisfaction, and leadership as well as how this research can contribute to further study and exploration.

Vroom's Expectancy Theory

In 1964, Vroom investigated the relationship between employee efforts, performance, outcomes, satisfaction, and expectations of employment (Ray, 2016).

Limited resources and time govern the decisions that employees make to balance goals and expectations (Ballard, Yeo, Loft, Vancouver, & Neal, 2016). ET is about motivating employees toward goals (Kuvaas, Buch, Gagne, Dysvik, & Forest, 2016; Vroom, 1964). An organization should understand the value of recognizing employees who meet goals (Ray, 2016). ET has a measurement of valence, instrumentality, and expectancy levels to motivate employees (Van Eerde & Thierry, 1996).

Valence provides the initial reward system that motivates employees to increase performance (Van Eerde & Thierry, 1996). With multiple goals, not relating valence with outcomes reduces the value of the reward because other goal outcomes may have a higher value for the employee (Ballard et al., 2016). It could benefit SMA leaders to review their current goals and rewards to decide if the employee's efforts match their reward and goals. SMA leaders may need to balance a mariners' initial responsibility of being in charge of the vessel with their secondary duties of training the cadets aboard the training vessel. Additionally, the emotional orientation of the employees' personal beliefs must reflect the organization's outcome (Ray, 2016). Organizational leaders should use ET to align the expectations of employees with performance and motivation measurements (Ray, 2016). SMA leaders' balance between the organization and employee's needs can improve employee performance and increase their commitment to the mission of the institution.

The instrumentality of ET can be used to measure employees' perception of the desired level of performance that they should exert to achieve an outcome (Kuvaas et al., 2016). Tying an employee's performance to a reward leverages an improved outcome

without overcompensation for the goal or outcome (Van Eerde & Thierry, 1996). If SMA leaders can determine acceptable motivation for compensation, they can improve retention and boost mariners' expected job satisfaction.

The last measurement of ET allows leaders to determine the level of performance needed to satisfy a goal (Ray, 2016). Expectancy is used to measure the likelihood of achieving a favorable outcome (Ballard et al., 2016). Financial compensation and other rewards maximizes employers' and employees' efforts and performance by increasing motivation through a combination of valence, instrumentality, and expectancy (Herbert & Rothwell, 2016). Thus, the retention strategies found in this study can promote a better work environment for mariners and improve the training atmosphere for cadets by leveraging the best expectancy practices.

ET has measurements that I used to categorize retention strategies that direct an employee's motivation toward valence, instrumentality, or expectancy about an outcome (Barbare-Sanchez & Atienza-Sahuquillo, 2017). Identifying SMA leaders' strategies for retaining mariners aboard training vessels can provide strategies for other SMA leaders. To build stronger retention strategies, SMA leaders can use motivational levels and expectancy of goals and outcomes currently practiced.

Other Expectancy and Motivation Theories

Multiple researchers have examined employee and organizational needs to reach goals (Kanfer & Chen, 2016). For example, Singhapong and Winley (2017) found that employees have both intrinsic and extrinsic needs for fulfilling job goals and an organizational mission. The following two conceptual theories are possible alternatives to

those in this study if the research question were focused on specific motivations and expectations set by employees or an employer. The two conceptual theories closely related to ET are Maslow's hierarchy of needs and McGregor's theory of type X and type Y.

The hierarchy of Maslow's theory established an order of an individual's motivation that may not fit the complex motivational needs of all organizations (Jonas, 2016). SMA leaders should look at overall best practices and not fulfill one-dimensional needs. People's needs and wants vary over time (Jonas, 2016). Furthermore, Maslow's theory addresses employees' own needs rather than viewing them in relation to an organization or position in a department (Kanfer & Chen, 2016). Maslow's theory would not be beneficial to SMA leaders because the bounded system's mission would not provide incentives to all levels of employees aboard a training vessel. If leaders based best practices on only cognitive processes, it could create inaccuracy because not all perspectives would be represented (Güss et al., 2017). Because this was a study of a bounded system, as opposed to one of individual perspectives, Maslow's motivation theory was inappropriate for determining the best retention practices at SMA.

McGregor (1960) studied individual behaviors and manners in the workplace to find two distinguishing groups of workers: type X, who are opposed to work, and type Y, who are compelled to work. Bojadziev, Stefanovska-Petkovska, Handziski, and Barlakoska (2016) determined that all ages of employees prefer type Y leadership. Employees desire engaged leadership, which is important because it leads to motivation; but rigid oversight stifles innovation (Dharejo, Baloch, Jariko, & Jhatial, 2017). The

literature on McGregor's human behavior theory has avoided a comprehensive analysis beyond two categories that generically view the performance behaviors of employees.

A comparison of Ouchi's theory Z (employee loyalty) and McGregor's X and Y theory led to the conclusion that distinct groupings did not fit 21st-century business operations and workforce perceptions (Aithal & Kumar, 2016). The complex role of a professional mariner and trainer aboard training ships creates a multifaceted work environment, which requires more in-depth understanding of both the motivation and expectation of employees. With this complexity in a training vessel's work environment, research on retaining mariners required a multidimensional approach to finding applicable data that can help create future best practices.

Overview of the Maritime Industry

Academic literature has a comprehensive analysis of the factors affecting mariner shortages and the issues that discourage prospective mariners from maintaining a life at sea. However, the literature does not include the retention issues facing merchant mariners in the United States (MARAD, 2015). Three quarters of all the global trade in commodities is done by sea (IMO, 2015), and mariners must have strong skills to safely navigate seagoing vessels (Licensing of Maritime Personnel, 2016) and protect oceans and navigable waterways (Diggs, 2014; U.S. Environmental Protection Agency, 2013). The need for qualified mariners has led to more government regulations and more required maritime training to provide the industry with knowledgeable mariners (Saeed et al., 2016). Changes in regulations and training periods can result in a fluctuation in the number of qualified mariners (Chambers & Main, 2016). For instance, the shortage of

mariners is partly due to new, stringent training regulations, which cause a delay in employment placement (Kahveci, Lillie, & Chaumette, 2011). This training delay may exacerbate the mariner shortage and affect the U.S. economy (MARAD, 2015).

Various government data does not provide a comprehensive plan for how businesses can retain U.S. merchant mariners or resolve the need to improve the quality of mariners who meet international standards, address the implications of technological advances, and overcome the multicultural gaps in the maritime industry (Gerganov, 2014; Madariaga Dominguez et al., 2014; Okonna, Ushie, & Okworo, 2014). Mariners' knowledge can be improved by initiating professional development at vocational high schools, which can enable mariners to perform at a higher level, improve their skills, and acquaint them with the technology required for safe navigation (Farias & Sevilla, 2015). Exposing prospective mariners to the industry early is a recruiting tactic that alleviates the shortage of mariners; however, early training does not focus on retaining mariners once they join the profession.

The United States currently sets requirements for mariners aboard U.S. vessels and inspects the standard operations of vessels entering the United States, as well as mariners traveling U.S. waterways, per the Jones Act (Hengen, 2013). The Baltic and International Maritime Council and International Shipping Federation, the two major international shipping groups, identified a worldwide mariner shortage of approximately 46,000 in 2010. If the United States does not address the shortage of qualified mariners to crew vessels covered by the Jones Act, the economy may suffer because U.S. vessels will be unable to deliver cargo. The unfilled positions aboard Jones Act vessels may create a

competitive market that could limit the availability of mariners to crew educational training facilities like SMA training ships (Caesar et al., 2014). As a result, the U.S. maritime industry may need to turn to poorly trained foreign mariners whom U.S. governing bodies do not regulate as an alternative for crewing vessels in U.S. trade. This shift to cheaper labor may increase security risks and endanger waterways. Without well-trained merchant mariners, the cargo-sustaining global trade may not move as efficiently. Merchant mariners are the working ambassadors of the world, traveling from port to port and experiencing various cultures, international practices, and differences that can create a stressful work environment (Rengamani & Charith, 2015).

Various Perspectives of the Merchant Marine

Many people are unaware of the daily activities of mariners that isolate them from their family and home life (Papachristou, Stantchev, & Theotokas, 2015). Conrad, Melville, Patrick O'Brien, Rudyard Kipling, Richard Henry Dana, and Robert Louis Stevenson, who have romanticized maritime life and experiences through nautical fiction (Berzins & Barbare, 2013; Kennerley, 2014), may mislead people regarding the role and importance of merchant mariners (Kennerley, 2014). These writings may also discourage many from pursuing the mariner lifestyle and disengage the maritime industry from the globalization of goods transportation (Kennerley, 2014). Maritime regulatory bodies further influence the public perception of the maritime industry (Berzins & Barbare, 2013). This disconnect could contribute to the global shortage of mariners. Research on life aboard ships, such as small crews and isolation, does not represent the reality of the profession. Research into human factors may lead to better retention strategies.

Mariners' misunderstood lifestyle creates confusion about how regulations affect mariners at sea. The IMO's oversight of treaties between multiple nations has created a safer marine environment, greater maritime security, and a global balance (Chan, Hamid, & Mokhtar, 2016). Further, the public misinterprets mariner lifestyles because mariners often encounter acts of nature beyond their control, such as hurricanes, which damage cargo or cause loss of life at sea and lead to possible criminal charges. Seafarers' Rights International (2013) found that 8.3% of mariners they surveyed had faced criminal charges. Although the authorities dismissed 67% of those charges, few mariners had any legal representation from their company or nation.

To counteract the view of the maritime industry from fiction, the Maritime Labour Convention prioritized improving the quality of life onboard vessels to enhance mariners' well-being (Progoulaki, Katradi, & Theotokas, 2014). For example, Progoulaki et al. (2014) found communication with loved ones important in maintaining mariners' welfare and well-being. Changes that improve living onboard vessels may provide a positive work environment and assist in retaining mariners in the industry.

Maritime Regulations and Requirements

The IMO supports ongoing changes and regulatory policies that influence life and the strenuous working environment at sea, interpret regulations, and address at international conventions the human factors in maritime accidents (Schröder-Hinrichs, Hollnagel, Baldauf, Hofmann, & Kataria, 2013). Some researchers have stated that globalization encourages sociolegal negotiations (Sampson, Walters, James, & Wadsworth, 2014). Over the past century, leading maritime nations have shifted from

controlling nationally owned and crewed vessels to reflagging vessels and employing mariners from less-developed nations to avoid the high cost of operating seafaring vessels (Kahveci et al., 2011).

The IMO implemented the Standards of Training, Certification and Watchkeeping (STCW) during its first convention in 1978. Since then, the IMO has addressed mariner safety and security on vessels, technological advances in navigation and ship systems, pollution, and onboard management techniques to improve global standards for mariners, all of which require mariners to possess a considerable amount of knowledge, understanding, and proficiency (Gerganov, 2014; Madariaga Dominguez et al., 2014). Additionally, the STCW Manila 2010 amendments stress mariners' responsibility for understanding maritime law (Petrinović, Mandić, & Sirišćević, 2016). The regulatory amendments require mariners to understand the legal interactions of shipping, which may obligate mariners to act on their employers' behalf without support if the regulating bodies are in dispute. However, mariner training requirements do not include learning various global regulations (Petrinović et al., 2016).

An early concern about global safety was navigation rules. Navigation regulation tends to be a recognized issue based on various interpretations of the wording in documents and data presentation (Eftychiou & Dowell, 2013). Mariners must follow prescribed International Regulations for Preventing Collisions at Sea (COLREGS; Szlapczynska, 2015). But the lack of standard training and comprehension of COLREGS makes maritime operations difficult for mariners and leaves interpretation of COLREGS to the individual. By researching cadets' ability to determine the use of COLREGS to

avoid collisions with enhanced training simulating typical scenarios and electronic training providing consistent training methods (Mohovic, Mohovic, & Baric, 2016), the standardization of training could help retain mariners at training facilities.

Shortage of Mariners

There are many explanations in the literature for the mariner shortage but little insight and academic research on mariners onboard training vessels. The maritime profession requires that workers undergo rigorous training and teaches mariners various global regulations. Numerous barriers discourage new workers in an industry and can lead to an aging workforce. Davy and Noh (2012) suggested addressing the shortage by improving the image of the mariner, fostering employee satisfaction, and identifying qualities that could increase retention and reduce turnover. The absence of mariner perspectives in maritime research on retention hampers the reliability of statistics, and interpretations have lacked the direct representation of the mariner perspective. Mariners are moving throughout the world as the maritime industry struggles to find suitable rewards to offset the sacrifices that the lifestyle demands. Despite the industry's efforts, the mariner shortage is increasing (Caesar & Cahoon, 2015).

European and Canadian governmental agencies have researched the decline in the labor force and found concern about the rapid increase in demand for officers in the maritime field (Kahveci et al., 2011). Maritime leadership is becoming more safety oriented. Licensed officers onboard vessels create a shipboard culture that protects mariners, cargo, and the environment to increase shore-side maritime leadership of a safety culture (Borgersen, Hystad, Larsson, & Eid, 2013). Fluctuations in regulation and

training requirements may obstruct recruitment and retention of qualified mariners. A decline in the qualified mariner population may adversely affect professional groups and maritime clusters; both require skilled individuals to support the goals of the IMO, maritime nations, and mariners (Kahveci et al., 2011). Professional groups and maritime clusters require skilled individuals who support the goals of the IMO, maritime nations, and mariners.

Some researchers have blamed the mariner shortage on the lack of recruitment and training over the past few decades (Kahveci et al., 2011). Less recruitment has increased the average age of mariners, creating a mariner generation gap that results in a loss of skills and knowledge in the maritime industry (Kahveci et al., 2011). The need to replace aging mariners fuels the shortage of mariners (Leggate, 2004). An inability to retain seasoned mariners to navigate and teach aboard vessels may affect maritime safety and knowledge standards (Caesar & Cahoon, 2015).

As regulations change and require more training, many older mariners choose to retire rather than complete additional training. This leaves the younger generation without professional mentors to oversee their development. The loss of workforce mentors means that training facilities must develop competent mariners for the maritime industry. This requires that maritime institutions invest in strategic enrollment plans and select applicants who understand the expectations of the job in regards to vessel operations and safety while focusing on the maritime culture (Caesar & Cahoon, 2015). The current literature has not analyzed training facilities as mentor providers or explored how SMA

leaders could increase the quality of future mariners by retaining seasoned and skilled mariners aboard training vessels to train and groom future licensed officers.

Maritime Training Facilities

Educational facilities increase the number of prospective employees by providing them skills and knowledge. Research in education has shown graduates from baccalaureate programs provide the maritime industry with mariners who possess the required skills (Khairullina et al., 2015). With the increased training and assessment requirements and the advanced technology onboard seagoing vessels in the maritime industry, higher education should be a fundamental way to deliver the knowledge, understanding, and proficiency needed to be a mariner (Gerganov, 2014). Maritime training facilities may use a variety of methods to deliver knowledge and prove proficiencies.

Online and blended learning—face-to-face and technology-mediated instruction—is in demand and approved by STCW 2010 amendments (Madariaga Dominguez et al., 2014; Okonna et al., 2014; Porter, Graham, Spring, & Welch, 2014). The global maritime industry should seek such diverse alternatives for educating mariners. Diversity in education provides employees an opportunity to experience various cultures, strengthen strategic plans and goals, and enhances the campus community (Hughes, 2015). The use of diverse, modern educational facilities may provide SMA with the essentials they need to produce quality mariners.

Extensive research into recruiting and retaining qualified teachers in elementary, secondary, and postsecondary schools has focused on engaging younger generations

(Ljung & Widell, 2014). Many nations are researching how vocational and applied education fits into an undergraduate education (Khairullina et al., 2015). Khairullina et al. found that an undergraduate education that incorporates vocational skills provides graduates with work skills and uses continuing education to develop the skills needed by the maritime industry.

The concept of enhanced education could fit with SMA leaders' efforts to graduate the best mariners. Educational leaders often struggle to balance instructional quality, cost of instruction, campus and maritime culture, reward systems, and accountability (Painter & Clark, 2015). Development of mariners' teaching skills may encourage employment in education. Faculty development might be possible through structured collaboration among faculty members, which could improve the quality of education (Painter & Clark, 2015). Successful faculty development involves educators early on in the common educational practices (Painter & Clark, 2015). The development of educational personnel is necessary for providing a quality education (Hoekstra & Crocker, 2015). The leaders at the University of the Pacific built their Faculty Center for Teaching and Learning to help teachers develop their teaching, learning, and scholarly skills (Hargis & Gilbertson, 2015). SMA leaders may wish to implement endeavors to increase trainers' involvement and improve their educational skills to help recruit and retain mariners onboard training ships.

Maritime Industry Recruitment

Organizational leaders should consider a mix of employee perceptions of employment to create diversification and acceptance within the organization. Employee

perceptions of the company ease the application process; the combination of organizational support and job advancement, skilled management, and attractive compensation packages help determine whether an employee joins an organization (Auger, Devinney, Dowling, Eckert, & Lin, 2013). Challenges in recruiting qualified mariners might contribute to the unavailability of practical training, blind spots in public awareness, and insufficient support when advancing entry-level employees to higher positions (Kahveci et al., 2011).

Many employees find companies with a strong sense of social responsibility more attractive, though this is not the leading reason for seeking employment (Auger et al., 2013). With long periods away from home required, mariners are interested in rotations that allow for equal time off and possibly shorter rotations. Mariners seeking employment at an organization require a balance of financial compensation and time demands (Auger et al., 2013).

Maritime organizations need to formulate recruiting tactics that identify potential employees with skills that align with the organization's goals (Davy & Noh, 2012). Caesar and Cahoon (2015) indicated that maritime training institutions must meet the expectations of applicants. Diversifying the applicant pool might be a solution to increasing the number of mariners in training.

Diversity can expand the knowledge required to manage new technology as well as decrease turnover and increase retention. The technological advancements in the maritime industry have primarily been in the areas of safety and communications (Davy & Noh, 2012), and women are capable of learning this technology as men (Okonna et al.,

2014). Technological advances provide opportunities for employees who have fewer traditionally “masculine” traits that mariners once had to demonstrate to complete cargo operations aboard seagoing vessels. When the expectations of new mariners become apparent to maritime leaders, maritime training institutions can create successful retention strategies to inspire maritime professionals to seek employment opportunities other than traditional commercial maritime positions (Caesar & Cahoon, 2015).

Maritime Industry Retention

Kim, Song, and Lee (2016) found that company leaders who have positive performance standards in corporate social responsibility are able to increase organizational commitment and improve turnover rates. When used by an organization’s leaders, forms of corporate social responsibility such as providing benefits and monitoring the corporate culture increase positive outcomes for all stakeholders, including employees (Lu, 2016). Company leaders need to create positive opportunities within their organizations (Xu, Loi, & Ngo, 2016).

Business leaders should understand their responsibility for the factors that contribute to the retention of their employees, increase morale, improve productivity, and promote the company’s image (Slack, Corlett, & Morris, 2015). Leadership can factor into the employee-company relationship by producing a positive work environment. Employees find that good leadership empowers employees on the job, enhances their job performance, and increases job satisfaction (Wong & Laschinger, 2013).

Mileski and von Zharen (2014) stated that employees categorizes their satisfaction according to the Wealth, Appreciation, Respect, and Sacrifice (WARS) model. Caesar et

al. (2015) conducted research that included the job satisfaction of mariners as well as the opportunities available for them to shift to shore duties to maintain maritime knowledge in the industry. The approach of WARS aligns with multiple studies on motivation theories incorporated into ET supporting a broader understanding of retention strategies (Barbare-Sanchez & Atienza-Sahuquillo, 2017; Herbert & Rothwell, 2016; Van Eerde & Thierry, 1996). Research found in the current literature on the marketing of employment opportunities may provide insight on how to increase job satisfaction. Alternate maritime opportunities may improve retention, which in turn may improve safety at sea by allowing seasoned mariners to train other upcoming mariners on the best current practices in the maritime industry onboard SMA training vessels.

The shortage of U.S. mariners might encourage foreign trade to forego business aboard U.S. vessels and avoid the high cost of training U.S. mariners (Kumar, 2015). The Jones Act protects the operation of U.S. vessels and offers secure employment for U.S. mariners in the international trade. These nationally protected job opportunities may be more favorable than working at government-operated SMA and could negatively influence retention of mariners at SMA.

Employment Marketing and Alternate Resources

Many nations acknowledge that there is a shortage of qualified mariners and have launched retention efforts to improve education in the maritime industry. In 2008, the IMO (2015) campaigned to attract more potential mariners. The European Commission initiated their Youth4JOB program to promote the maritime industry and increase the labor pool (Berzins & Barbare, 2013).

Youth. The maritime industry has increased its use of technology (Davy & Noh, 2012). Attracting young people with advanced technical skills would minimize the additional training requirements for mariners to be prepared to work aboard SMA training ships. Some researchers believe the need for technologically skilled mariners will continue to increase (Kahveci et al., 2011).

Recruiting and training younger mariners may increase the mariner population and develop the advanced skills now needed to operate vessels in confined waterways, near coasts, and over oceans. Berzins and Barbare (2013) found that younger workers look for employment that provides solid economic support, is socially acceptable to others, and is psychologically stimulating. Many youth find the high compensation of the maritime industry attractive. Younger generations, however, have little knowledge of the opportunities within the industry (Guest, Lotze, & Wallace, 2015). This creates challenges for attracting young people to the maritime industry. To counter this, the industry should focus on increasing public awareness. Maritime trainers must relay the merits and opportunities of being a maritime professional for the younger generation (Berzins & Barbare, 2013).

Globalizing mariner employment. Ten countries account for 56% of all mariners working today; unfortunately, the United States is not one of them (Leggate, 2004). Although many nations are considering introducing a new maritime culture to their workforce, the U.S. maritime culture needs to understand and determine where the workforce stands within its merchant maritime fleet. Canada and the European Union have initiated recruiting, training, and retention efforts to ensure safe waterways and

employment opportunities for their populations (Kahveci et al., 2011). Knowing what mariners find essential should help SMA leaders create compensation and promotion packages to retain U.S. mariners aboard vessels. Factors that influence mariner retention include lifestyle conditions, such as lack of company support for mariners' families (Baylon & Santos, 2015); health hazards, which burden coworkers and owners (Lefkowitz, Slade, & Redlich, 2015a); gender and cultural discrimination (Stevenson, 2015); and legal or regulatory issues, such as piracy (Kunza & Mileski, 2013). Maritime researchers have found areas of deficiency that may contribute to the shortage of qualified mariners and the high turnover rates in the industry.

Gender. The maritime industry is perceived as a demanding, masculine professional field that requires an extensive understanding of regulatory requirements and advanced technology (Gerganov, 2014). The maritime industry offers job opportunities through professional societies and mentoring programs that may support underrepresented groups (Gerganov, 2014; Mitroussi & Notteboom, 2015; Okonna et al., 2014). Technology is increasing opportunities for women to overcome the perceived gender barriers of the maritime industry. SMA leaders should explore diversifying marketing strategies toward applicants to improve retention. The recruitment of women is another way to increase the number of mariners needed in the future (Magramo & Eler, 2012).

Employment Motivation Themes

The literature on employee values and work atmospheres has shown that many leaders and employees have similar ideas of what should be found in the workplace

(Sageer, Rafat, & Agarwal, 2012; Skaalvik & Skaalvik, 2011). Corporate social responsibility is becoming more important for all stakeholders and affects the value of employment in an organization (Slack et al., 2015). Business leaders need to consider social opportunities that increase retention and adopt the best leadership practices to maintain a positive work environment (Skaalvik & Skaalvik, 2011). Anik, Akin, Norton, Dunn, and Quoidbach (2013) found that over the past 2 decades, more people have expressed dissatisfaction with work even as they spend more hours on the job. These trends illustrate how workers need to be part of an organization with corporate social responsibility and seek more job satisfaction to improve the balance. Anik et al. (2013) suggested prosocial corporate interaction might substitute for or balance the need for job satisfaction.

Categorizing what employees find valuable is a step toward developing best practices. Skaalvik and Skaalvik (2011) presented motivation, feelings of belonging, emotional fulfillment, and satisfaction as reasons for teachers to continue working at their current learning institution. Research in Macedonia found that employees weighed the ability to cope with their work environment, monetary payment, and demographic variables as determinants of job satisfaction (Sardžoska & Tang, 2012). The WARS model provides an outline of employee satisfaction themes that motivate mariners (Mileski & von Zharen, 2014). Incorporating the various motivation themes from other motivation research aligns WARS with the common needs of employees (Mileski & von Zharen, 2014; Ray, 2016). Mileski and von Zharen created the WARS model to quantify the primary areas that influence mariner recruitment and retention in the maritime

industry: wealth and compensation, appreciation and recognition, risks of the employment position, and sacrifice needed for job satisfaction.

Mariner Wealth and Compensation

Financial compensation is a major aspect of motivation for employees that does not always support their psychological needs (Kuvaas et al., 2016). Many select the maritime field for its job opportunities and monetary rewards (Davy & Noh, 2012). Mariners' compensation for their work is very high in leading nations (Kahveci et al., 2011). Maritime leaders at many shipping companies take advantage of the global labor pool by selecting the cheapest workers (Kahveci et al., 2011), but the selection of low-wage employees might sacrifice safety by employing inferior workers. Some nations have incorporated a tonnage tax or other tax exemptions to offset the competition (Kahveci et al., 2011).

Mitroussi and Notteboom (2015) found mariners weighed both extrinsic motivators (e.g., base wages, bonuses, merits, advancement opportunities) and intrinsic motivators (e.g., relationships between coworkers and employers, autonomous work environment, employee goals and skills, security of employment) when selecting job opportunities. Thus, monetary compensation is not the only factor when employees consider their job satisfaction (Sageer et al., 2012). In fact, Choi and Whitford (2016) found some employees who receive merit-based pay are less satisfied with their jobs. They learned that many merit-based pay positions (e.g., in government agencies) can generate or limit competition because of constraints that ultimately decrease employee job satisfaction. Merit opportunities could encourage employees to advance through

training or skill-building opportunities. Burgard and Görlitz (2014) researched the correlation between gender and training to increase job satisfaction and found men to be more satisfied with job training than women, which suggests an alternative for one gender. Maritime industry leaders may find that mariners in this male-dominated field may accept training as an alternative to financial compensation.

Mariner Appreciation and Recognition

Kim, Song, and Lee (2016) determined that if a corporate culture does not provide enough positive feedback and appreciation for hard work, employees feel expendable. The lack of corporate support from top to bottom in an organization may decrease employee work ethics. Kuvaas et al. (2016) suggested that organizations should recognize and value education and employee development. In the maritime industry, 80–90% of accidents occur because of human error (Barsan et al., 2012). The lowered expectations of both employees and employers could lead to increased regulation. Employees also feel overwhelmed by stricter regulations and their own lack of training in the skills needed to perform their jobs. Codification of areas of navigation and bridge resource management identifies tactics that can reduce human error (Graziano, Teixeira, & Soares, 2016). Reviewing the performance standards of mariners helps identify incident avoidance measures needed to navigate a vessel.

Many nations do not have training and certification programs or lack the economic means to enforce the maritime industry's costly training requirements (Kahveci et al., 2011). The United States should promote a higher standard of training through SMA that offer appreciation to the maritime industry and regulated by the U.S. Coast

Guard and MARAD (MARAD, 2015) to protect the environment, cargoes, and crewmembers.

One technique that maritime leaders can use to attract and retain mariners is to implement training programs to keep mariners competitive in the industry (Barsan et al., 2012). Organizations could pay for the training mariners need to meet the newest STCW 2010 requirements, including electronic chart display information systems courses, leadership and managerial skills courses, and engine room resource management courses (IMO, 2015; Madariaga Dominguez et al., 2014). This would create a professional ladder that would bestow recognition and proof of appreciation upon both entry-level and experienced mariners. Proof of fair and accurate appreciation is often apparent in job, pay, and organizational satisfaction (Choi & Whitford, 2016). Maritime organizations should develop successful retention strategies to demonstrate recognition and appreciation, which will increase retention and curtail unfavorable behavior.

Criminalization. Fitzpatrick (2015) reflected on the disparities between national laws and the IMO regulations that make mariners responsible for all legal actions of the crew and the vessel's owner. The risk mariners' bear typically goes unnoticed until a major accident occurs (Fitzpatrick, 2015). Global lawyers who represent industries uphold social, cultural, and political boundaries and determine the accountability of people who commit legal infractions (Darian-Smith, 2015). Under current rules, licensed officers are liable for criminal actions that can result in incarceration and fines, even if that criminal action is due to the negligence of a crewmember or the vessel owner

(Fitzpatrick, 2015). These stringent consequences demand that mariners be professional and recognize how their actions may affect them in the future (Kim & Kim, 2013).

Professional organizations. The maritime field is a global industry. The Baltic and International Maritime Council (2015) is an international shipping association with over 2,000 members that assists maritime agencies with guidance and information to increase standardization and equality in the maritime industry. The International Shipping Federation and Baltic and International Maritime Council monitor raw statistical data from vessels crewed by mariners from various nations (Kahveci et al., 2011). Most nations train mariners to earn credentials in their own nation, but in practice mariners often sail under the flag of another nation (Kahveci et al., 2011).

Globally, there are many mentoring societies—or maritime clusters—to help mariners understand activities within the maritime industry. These maritime clusters unify maritime companies, governments, educators, trainers, and individuals in an infrastructure that supports maritime goals (Kahveci et al., 2011). Lister (2015) found that a response to global trends that balances the concerns of governments, corporations, and shippers—if appropriately overseen by all stakeholders—provides an opportunity for progressive regulations to modify industry practices for the common good.

Maritime education and training facilities have the opportunity to select and mentor entry-level mariners by creating curricula that reflect industry needs (Davy & Noh, 2012). Research has found a lack of support for leadership development in maritime education and training facilities (Haughton, 2012). There may be possibilities for showing appreciation and recognition at SMA by developing mentoring programs and

encouraging interaction among professional organizations in both the maritime industry and the education field for upcoming SMA leaders. Research has shown that authentic leadership provides the highest morale, which in turn leads to a supportive work environment that promotes positive behavior (Morton, 2012; Wong & Laschinger, 2013). A supportive work environment might help maritime stakeholders develop mentoring programs to improve employee satisfaction.

Maritime Employment Risk

Employees need a sense of security and stabilization based on their risk tolerance (Ballard et al., 2016; Nyberg, Pieper, & Trevor, 2014; Ray, 2016). The maritime industry exposes mariners to high levels of risk due to human error such as fatigue or failures in situational awareness or assessment (Davy & Noh, 2012; Peplińska, Jeżewska, Leszczyńska, & Połomski, 2014). Illness and injury at sea may lead to lost work or restrictions in operations (Lefkowitz et al., 2015a) and can make it difficult to balance a mariner's occupation with family, purpose, and satisfaction (Peplińska et al., 2014). Many on-the-job risks are not apparent or fully understood by mariners when they consider their employment options. Some of these risks include exposure to dangerous cargo or work environments, piracy, and criminalization. The need for safety is a noticeable pressure in the maritime industry (Davy & Noh, 2012).

Health. Current discussions at industry conferences and forums highlight safety concerns and the need for qualified crews (Davy & Noh, 2012). However, the globalization of maritime transportation also exposes mariners to various infectious diseases, a higher-than-average fatality rate, and limited access to medical facilities in

remote locations (Lefkowitz et al., 2015a). Maritime leaders should increase industry medical standards for merchant marine health care needs. Mariners do not have easy access to proper medical care while at sea, and delayed medical care may lead to further complications.

Researchers recognize that the maritime industry is an emotionally and mentally stressful occupation (Slišković & Penezić, 2015). The maritime industry is also physically demanding for mariners. Researchers have found that back injuries and gastrointestinal illness are the primary reasons for repatriation (Lefkowitz, Slade, & Redlich, 2015b). With the high levels of stress and absence from home, mariners could feel removed from society. The lack of acknowledgement about a mariner's perception becomes apparent when researchers consider mariners as alcoholics and drug addicts in a profession subjected to fatigue and isolation (Pougnnet et al., 2014).

Legal counsel. Admiralty, or maritime law, predates the U.S. Constitution. Jurisdiction of the various admiralty laws, which also apply to certain nonmaritime areas, is complex and lacks uniformity, which creates difficulty for jurists in reaching a decision (Powell, 2015). Qualified legal representation is required to interpret maritime regulations to avoid unforeseen outcomes (Zeiger, 2016). The various maritime governing bodies include the IMO for safety upon the waters, the national governing body of the vessel, the governing body of the location where the vessel transits waterways, and the International Labour Organization (ILO) for crew members.

The ILO Maritime Labour Convention of 2006 is the “fourth pillar” that enforces regulations regarding baseline working and living standards for mariners (Piniella, Silos,

& Bernal, 2013). This organization provides possible solutions for improving the work environment and increasing retention while empowering mariners. For example, unions like the ILO provide laborers with regulatory protection from poor work environments (Mitroussi & Notteboom, 2015).

Mariner Sacrifice and Job Satisfaction

The maritime industry offers training and skill advancement opportunities aboard ships, in marine education facilities, and on shore. The tactical approach to overcome sacrifice (valence and instrumentality) and job satisfaction (expectation) is apparent for employees when they attempt to achieve multiple goals and job satisfaction (Ballard et al., 2016; Nyberg et al., 2014). Davy and Noh (2012) suggested that current generations in the mariner workforce might consider changing jobs if they are not satisfied. Mariners with unmet needs may leave the industry. Training mariners to work shore-based positions could be a tactic the maritime industry can use to preserve maritime knowledge and entice mariners to stay in the industry (Kahveci et al., 2011).

Leadership can actively promote a positive work environment. Upcoming mariners must understand the isolated nature of maritime work and the resulting need for teamwork (Davy & Noh, 2012). Maritime organizations should consider increasing job satisfaction by improving the work environment, offering training, and improving leadership (Sageer et al., 2012).

Researchers have found a correlation between authentic (or transformational) leadership and job satisfaction (Batista-Taran, Shuck, Gutierrez, & Baralt, 2013; Morton, 2012). Positive feedback from employees has demonstrated that authentic leadership

encourages reports of possible wrongdoing, increases productivity, and protects organization (Liu, Liao, & Wei, 2015). To further employee empowerment, transformational leaders should provide motivation and encouragement for teams to meet above-average expectations (Dust, Resick, & Mawritz, 2014). The increase in ethical behavior motivates job satisfaction through the creation of a safe working environment (Gatling & Harrah, 2014). Maritime leaders might offer remuneration in altering leadership styles for SMA leaders and mariners by adopting a more authentic leadership style to address the industry's problems. One perception of the maritime industry is that of a predominantly male culture operating in harsh conditions (Mitroussi & Notteboom, 2015). Because of concerns about recruiting and retention, the maritime industry is encouraged to reinvent itself as a satisfying occupation with a positive, socially promising work environment (Mitroussi & Notteboom, 2015).

Industry traits. For many people, selecting an appropriate field of employment requires some categorization of traits, one of which is that the maritime industry is a male-dominated field (Okonna et al., 2014). In an attempt to improve the working environment, organizations such as the International Maritime Health Association, International Seafarers' Welfare and Assistance Network, International Transport Workers' Federation, and Seafarers Hospital Society have researched options for improving the health and welfare of women aboard vessels (Stannard et al., 2015). Leading organizations, such as the IMO's Women in Development Programme, have created outreach programs to attract a larger pool of applicants by presenting the maritime industry as an equal-opportunity environment (Grant & Grant, 2015; Stannard

et al., 2015). A merchant marine officer must understand navigation, cargo operations, vessel safety and security, human resources, documentation requirements, cargo handling, and global business. There is no research readily available on the documentation and business operations that merchant marine officers must complete. The research on vessel operations has mostly focused on navigation techniques used to transit inland waterways, coastal areas, and the open ocean.

Piracy. Pirate attacks tend to increase around nations that lack effective countermeasures (Daxecker & Prins, 2015). In 2004, there were more than 2,600 pirate attacks (Daxecker & Prins, 2015). Bands of pirates find economic relief by attacking vessels in areas with little regulatory and military support (Daxecker & Prins, 2015; Ghosh, 2014). Researchers have focused on the economic and financial loss caused by piracy (Daxecker & Prins, 2015) and strategies for surviving attacks (Kunza & Mileski, 2013). Piracy has become more violent, and military intervention has increased (Chong, Jiang, & Chow, 2015). Mariners in distress must rely on local countries to provide assistance (Chong et al., 2015).

Opportunities for the Merchant Marine

In the 1990s, the global maritime industry showed a 3.5% increase in seaborne trade and a 2.8% increase in the demand for mariners (Leggate, 2004). The increasing demand for commodities throughout the world provides concrete employment opportunities for mariners who satisfy the necessary education and training requirements. The increasing demand for transportation requires an understanding of a mariner's social responsibility to the global environment. Mariners throughout the world often combine

forces for social and environmental protection of both themselves and local waterways through the auspices of organizations like the International Transport Workers' Federation, IMO, and ILO (Madariaga Dominguez et al., 2014; Okonna et al., 2014; Stannard et al., 2015).

Mariners obey multiple international and national regulatory standards. The tightening of regulatory requirements by government agencies creates a strong bond between ship and shore with regard to management responsibilities for environmental safety (Kahveci et al., 2011). If mariners have the opportunity to shift from ship to shore-based duties, this opportunity is a beneficial recruiting strategy for educational facilities that train mariners as ship operators in the technological and management skills they will use in daily operations (Ljung & Widell, 2014). Operating a vessel provides opportunities for mariners with financial support, social recognition that they are part of international trade, and stimulation for personal and professional growth (Berzins & Barbare, 2013).

Institutions like South Seattle College are also finding that initial training in maritime subject matter improves retention in maritime leadership positions or supervisory positions in logistics and transportation, which are rapidly growing areas of employment (Grobe, Martin, & Steinberg, 2015). Leadership and supervisory positions offer employment and advancement opportunities that are appealing to some mariners. In Europe, approximately 12% of shore-based maritime jobs require merchant mariner experience (Kahveci et al., 2011). Maritime industry leaders are noticing a need for a higher quality of mariners in these positions; shipboard experience alone does not prepare mariners for leadership roles.

Other researchers have compared national maritime labor with various industrial areas (e.g., mining, tourism) to determine the value of balancing human capital in a given nation (Purba, 2015). Most of these studies have focused on economic solutions to decrease the cost of crewing. Reductions in crew cost, however, will not alleviate the shortage of mariners (IMO, 2015).

The lack of marketing techniques for retaining mariners is noticeable in the literature and research on the areas of lifestyle, education, and opportunities. Many countries support the IMO's efforts to improve the safety, security, skill level, and humanitarian treatment of mariners through regulatory requirements set by international conventions. Mariners subjected to the burdens of maintaining and implementing regulations do not seem to influence the decisions of managers, who instead tend to focus on cutting operating costs by reducing staff and finding cheaper international labor.

Maritime Education and Training of Mariners

The skills a mariner must obtain cover several areas of knowledge: navigation, firefighting, medical care, cargo handling, and management. Maritime education and training provide knowledge, understanding, and proficiency through theoretical and practical assessment; mariners earn their merchant credentials through a combination of on-shore and onboard exercises (Haughton, 2012; Kim & Kim, 2013). The IMO, a United Nations agency, sets minimum standards for the world's shipping industry in the areas of training, safety, pollution prevention, and operations (Kahveci et al., 2011). These international guidelines were first adopted under the STWC in 1978, then amended

in 1995 and 2010, with the aim of minimizing maritime incidents or accidents (Ghosh, Bowles, Ranmuthugala, & Brooks, 2014; IMO, 2015; Kahveci et al., 2011).

The STCW enforces high-level training requirements for entry-level mariners in both the practical and theoretical knowledge needed to work on vessels (Kim & Kim, 2013; Madariaga Dominguez et al., 2014). During their introductory period, entry-level mariners can meet the national and international standards of knowledge assessment and proficiency through a combination of college courses and shipboard training (Ghosh et al., 2014). The formalization of mariner training and education ensures that entry-level mariners meet the highest industry demands (Davy & Noh, 2012). Davy and Noh (2012) stated that training academies such as SMA could help improve the quality of mariners by identifying the most suitable candidates and grooming them for the maritime industry. The previously used WARS themes relate to mariner motivation and could support ET of effort, performance, and rewards, as described above.

Summary

The IMO (2015) reported it anticipates an international shortage of mariners. The maritime industry can improve the quality of mariners through training at specialized training academies (Davy & Noh, 2012). There are six SMA and one federal maritime academy in the United States that provide a bachelor of science and master's degrees with an unlimited deck or engine officers' license to work in the U.S. Merchant Marine (MARAD, 2015). Combining the issues of the shortage of qualified mariners and the training of qualified mariners presents an area not directly represented in the academic literature in the United States.

Research can help further determine successful retention strategies for retaining quality mariners to teach maritime education and training, and successful strategies can help the maritime industry overcome its mariner shortage. If SMA educators train people who are unwilling to invest the time to become mariners, then the need for new mariners will persist; the costly education and training cease creating interchange skills for when students change occupations (Davy & Noh, 2012). SMA leaders train mariners aboard waterborne vessels while providing them a college education. This varies from commercial waterborne vessels and thus requires different tactics to retain qualified mariners. Knowledge of ET may help SMA leaders explain why the current best practices at their organization work in retaining mariners aboard training vessels. By promoting transformational leadership and providing increased career advancement opportunities, SMA can ease the stress of transitioning from a professional merchant mariner in the commercial field to a mariner specializing as an expert maritime educator, which will help to retain the qualified mariners needed to crew training ships (Davy & Noh, 2012; Haughton, 2012).

Transition and Summary

In Section 1, I described concerns of a possible U.S. and global mariner shortage and the effect that shortage might have on the maritime field, especially at training and education facilities that compete for highly qualified mariners. In the background of the problem section, I provided information on the complexities of training mariners and the impact the amount of training has on retaining mariners aboard training ships. In the problem and purpose statements, I revealed the current need to identify techniques that

SMA leaders can use to retain mariners aboard training ships. In the nature of study and the conceptual framework sections, I discussed the use of the case study approach to allow SMA leaders to identify successful retention techniques used at their facilities. The literature review consisted of current and classic research on the need for maritime training onboard training ships to address the predicted shortage of mariners. The literature review also included an overview of the various political and economic issues affecting the maritime industry.

Section 2 below contains a detailed outline of the research process. The section starts with a restatement of the issue and purpose of the research; presents an outline of the researcher's role with details of the process for selecting study participants; the research methodology and design; ethical issues; and data collection and analysis. The final portion of Section 2 outlines the steps taken to ensure this study's reliability and validity.

Section 2: The Project

Section 2 outlines the purpose of this qualitative, single case study to determine successful retention techniques at U.S. SMA. The use of interviews with SMA leaders provided data to identify patterns in successful retention strategies. SMA documentation from SMA human resources provided data to determine the effect of these strategies, such as improved employment performance and increased length of employment aboard training vessels. Section 2 also contains a delineation of my role as the researcher, the participant selection process, research methods and design, ethical research parameters, data collection and analysis methods, and issues of reliability and validity.

Purpose Statement

The purpose of this qualitative, single case study was to identify successful retention strategies that U.S. SMA leaders use to retain mariners aboard training ships. The target population was federal- and state-funded U.S. SMA leaders who use strategies to retain mariners aboard training vessels. The study can contribute to positive social change by providing mariners who train cadets at SMA with greater employment satisfaction and reducing the shortage of mariners on U.S. waterways. Retaining experienced mariners aboard training vessels may also make the job market more competitive for graduates seeking employment in the maritime industry because of the professional training received due to the successful retention strategies identified in this study.

Role of the Researcher

My role as the researcher in this study was to interview without prejudice eligible SMA leaders and recruit them as participants as well as compare interview data with SMA documentation. I remained as impartial as possible during the data collection and data analysis. The researcher as the primary data collector must avoid bias by developing and asking open-ended questions that permit the interviewee to address the research topic fully (Yin, 2014). Avoiding bias when reviewing the collected data also helped to ensure that I fully comprehended a participant's responses to the questions (see Anyan 2013; Berger, 2013).

I have over 25 years of experience in the U.S. merchant marine and 19 years in the higher education of merchant mariners. Because the value in understanding others' competence improves understanding (Isaksson-Persson, 2015), my exposure to the industry provided views of and ideas about maritime industry values. The experience of holding an Unlimited Master Oceans U.S. Merchant Mariner's Credential with STCW Certification and actively working at an SMA helped me relate to the research participants (i.e., mariner educators). Additionally, per the Belmont Report (1979), I maintained professional research guidelines by (a) establishing boundaries between the research and the participants' well-being; (b) treating participants equally and respecting their well-being; and (c) obtaining completed consent forms that outline all parties' responsibilities. Participants voluntarily participated in a noninvasive interview to share their perceptions of how retention strategies at their institutions succeeded in retaining

qualified mariners as educators aboard training ships. Each participant informed of the process signed a consent form.

To avoid bias and remove personal perspective as much as possible, recorded interviews allowed chronicled information for the identification of repetitive participant responses (i.e., themes). A comparison of recordings provided reliability and validity of the data through the confirmation of statements made by interviewees (see Al-Yateem, 2012), and review of the recordings helped identify repetitive themes. The comparison of data for repetition in the SMA employment documentation showed relevant perceptions and validates them as possible solutions. During the semistructured interviews, I reviewed and repeated interviewees' self-perception to ensure focus of information was on the interviewee. During the interview, the researcher may relinquish control to allow the interviewee to confirm or deny a response and therefore provide a solid understanding of an answer to an open-ended question (Simpson & Quigley, 2016). The restating of data to the interviewee assisted in removing personal bias and pinpoints the reoccurrence of answers in various interviews.

The interview protocol consisted of asking the participant a set of questions and confirming the accuracy of the information elicited. Engaging the participant as an integral stakeholder began with the request to participate. Participants thus understood the details of the process, including the requirement for their consent to participate, purpose of the research, and protection for the participants (Brubacher, Poole, & Dickinson, 2015). Each step of the interview process acknowledged the importance of the stakeholders' contributions to the research topic. A defined interview improved the

process and allowed me to focus on the data to provide an accurate answer to the research question by increasing the substantive information collected (see Wolgemuth et al., 2015).

Participants

There are six SMA in the United States preparing mariners to train aboard U.S. SMA ships (MARAD, 2015; State Maritime Academy, 2016). The participants were selected from one of the six SMAs. Those who demonstrate similar characteristics should account for the characteristics, purpose, and compatibility of the parameters set in a research study (Koenig, 2013). Therefore, only SMA leaders implementing successful strategies for retaining mariners aboard training ships participated in the interviews.

Defining the selection process allows for replication of the study to test its validity (Kriglstein & Pohl, 2015). The process reinforced the selection of case study interviewees from an SMA by allowing me to select leaders who have implemented successful retention strategies. Defining the interviewee selection process enabled data saturation, alignment, and allowed all participants to be familiar with the subject of the research (Palinkas et al., 2015). I found the SMA leaders' public administration contact information via the Internet to access the SMA personnel information and determined who was in charge of ship operations and oversaw personnel aboard the training ships. Information selected from the SMA website confirmed the leaders' job duties, e-mail addresses for initial communications, and phone numbers to set up interviews.

The SMA leaders' involvement with mariners increased their understanding of the research topic and encouraged collaboration on successful retention strategies to fulfill

mariners' requests for employment aboard training ships. After evaluating SMA personnel and their relationship with the mariners aboard training vessels, I sent an initial e-mail to request their consent to participate in the study. Defined guidelines such as these demonstrate dedication to verifying best practices in data collected from each participant (Moore et al., 2015).

Through the qualitative method, researchers determine a relationship between the conditions and their elements (Wohlin & Aurum, 2015). Researchers initiate a relationship with the participants by relating the topic of the research to the participants' interests. Before setting up an interview, I sent a preliminary e-mail to all participants requesting that they review the research topic to become familiar with the purpose of the study. The initial e-mail contained an explanation of how I would use the information collected during the study and the impact the study might have on SMA. Fostering trust between participants and researchers reduces ambiguous or vague responses (Cuevas, Julkunen, & Gabrielsson, 2015; Nikolova, Möllering, & Reihlen, 2015) and allowed the SMA leaders (participants) to respond more openly to interview questions. The expertise of SMA leaders and the need to find best retention practices helped establish a positive participant–researcher relationship.

Research Method and Design

Research Method

There are three distinct methods of empirical research: quantitative, qualitative, and mixed method (Merriam, 2009). During the exploration phase of research, a qualitative researcher outlines guidance for exploring and finding information pertaining

to the research question (Palinkas et al., 2015; Wohlin & Aurum, 2015). This study was exploratory by nature; therefore, I conducted it with a qualitative research method.

Both qualitative and quantitative research methods may involve exploratory processes through interviews or surveys (Wohlin & Aurum, 2015). The variations in the details of the research question and research process determines whether the research is qualitative or quantitative. Quantitative research is an analytical process that involves the testing of relationships between independent and dependent variables to produce a numerical outcome that accepts or rejects the hypothesis (Yilmaz, 2013). I did not intend to test hypotheses in this research, so quantitative research was not an acceptable approach. Instead, I interviewed participants through a series of open-ended questions. Qualitative research is used to target an audience to determine the reason for their perception of the topic being researched (Venkatesh, Brown, & Bala, 2013).

Mixed-method research combines data from various perspectives to present a more in-depth view of a topic (Mayoh & Onwuegbuzie, 2014). Mixed-method research combines both quantitative and qualitative research methods to determine both the cause of a phenomenon and the suitability of the theory based on the research question and the purpose of the research (Venkatesh et al., 2013; Wohlin & Aurum, 2015). The point of the present study was to explore SMA leaders' successful retention strategies, which is a qualitative inquiry process, so I did not seek the analytical data required for quantitative research. For these reasons, neither quantitative nor mixed-method research was an appropriate technique for this study.

My goal for the study was to determine the strategies used to retain mariners on SMA training vessels. The approach did not involve fieldwork on the outcomes of successful retention strategies, which made mixed-method and quantitative research inappropriate. Qualitative research was the best method for determining how to address a phenomenon in a revelatory process (Wohlin & Aurum, 2015).

Research Design

Each research design guides a researcher's approach for validating research based on the participant–researcher relationship (Grossoehme, 2014). The researcher must identify the techniques needed to answer a research question by setting the parameters for participant selection and the interaction level (Yin, 2014) and then formatting them into a recognized research design (Grossoehme, 2014). To find multiple social phenomena, the qualitative research design can be an ethnographic design, phenomenological design, or case study (Yilmaz, 2013).

An ethnographic design requires researchers to view and immerse themselves in the participants' culture over a certain period (Merriam, 2009; Yin, 2014). For example, anthropologists use an ethnographic design, which requires them to conduct field observations (Merriam, 2009). However, the data gathered, the outcome, and the perceptions of SMA leaders' retention practices did not require submersion in the daily operations at an SMA.

Phenomenological research incorporates human consciousness and experience to acknowledge perceived understanding (Merriam, 2009; Moustakas, 1994).

Phenomenological research involves interpretation of the participants' experience

(Rodham et al., 2015). Researchers in health and psychology often use these research techniques where participants relay their experiences with a situation or phenomenon (Callary, Rathwell, & Young, 2015). My study did not target individual perceptions of a phenomenon, but rather the insights of SMA leaders regarding successful retention techniques. Hence, a phenomenological design was inappropriate for this study.

Case study research is focused on an event that occurs within a bounded system (Yin, 2014). This study was focused on one SMA as a bounded system whose leaders have implemented successful mariner retention strategies. The case study approach is the only qualitative research method that examines bounded systems and allows multiple studies to enhance validity (Houghton, Casey, Shaw, & Murphy, 2013). A case study approach allows participants to express their understanding of the event or situation, which the researcher reviews for themes related to the research questions (Wohlin & Aurum, 2015).

The comparison of more than one bounded system provides validity and reliability by comparing bounded systems while repeating data collection and analysis to improve the truth of the outcome and its completeness (Elo et al., 2014). Participant interviews continue until the repetition of results supports the saturation of ideas and concepts and increases research validity (Fusch & Ness, 2015). By interviewing multiple SMA leaders and cross-referencing employment records, I found reoccurring trends. I continued to review the data until no more new themes or ideas concerning retention strategies appeared. Data saturation does not always require repetition; a thorough collection of data that does not introduce new concepts and relates to the research

question can result in data saturation (Roy, Zvonkovic, Goldberg, Sharp, & LaRossa, 2015). Single case studies ensure saturation with multiple responses from SMA leaders and an in-depth review of documentation.

The case study method was the most appropriate for determining strategies that retain mariners aboard U.S. training ships. This single case study allowed me to ask multiple SMA leaders for details of retention methods at one SMA. This study's design revealed successful retention strategies that could be cross-compared and aligned with qualitative research concepts. This allowed me to collect data from various SMA leaders in one SMA until I reached saturation for the one bounded system. The themes and ideas found in this study compared with various SMA in the future could provide further insight to SMA in different locations within the United States.

Population and Sampling

Purposeful sampling is an essential component for gathering in-depth, generalized data pertaining to participants' understanding of a situation (Yilmaz, 2013). Researchers gain insight into a research question by selecting participants with firsthand insight who also meet the selection criteria (Grossoehme, 2014; Merriam, 2009). Purposeful selection identifies pertinent stakeholders with knowledge of the selected topic.

In this case study, the participants selected through purposeful sampling were SMA leaders who oversaw the successful retention strategies of mariners aboard SMA training vessels. A sample of the target population of SMA leaders who implement successful retention strategies and know that employment opportunities for mariners aboard SMA training ships were included in the study sample. Purposeful sampling

builds credibility through selection of interviewees with a direct understanding of the research question (Benoot, Hannes, & Bilsen, 2016). Selecting more research participants than required ensures progress can continue (Grayson & Media, 2013). The participants were department heads for each corresponding ship department and the SMA leader who oversees the training vessel and SMA campus.

Sample size versus outcome importance affects the number of possibilities or the final data's range of accuracy (Liu, 2013). Initially, an outline of personnel, titles, and job descriptions to cross-compare between job functions for similar leadership roles facilitated the selection of SMA leaders. The assorted participant pool allowed for in-depth data collection necessary to achieve saturation and understanding of the data (see Palinkas et al., 2015; Yilmaz, 2013). The participants were employed at the SMA, held an SMA leadership position, and understood the retention strategies used at the SMA.

After reviewing the SMA personnel list, I selected at least five SMA leaders engaged in the creation or implementation of mariner retention strategies for the training ship. SMA personnel groups tend to represent a small population. The selection processes for finding an alternative population ensured that the data collected represented the most viable sources. Brubacher et al. (2015) suggested conducting interviews in comfortable settings acceptable to each participant with guidelines that state the purpose of the interview and create a safe environment for participants to answer interview questions openly. A researcher may create an uncomfortable situation for the participant that might hamper data collection during the interviews in a qualitative study (Qu & Dumay, 2011). When necessary, I conducted interviews over the phone so participants felt safe with the

interview environment. Participants selected a time and place for the interview that was convenient for them. The interview location selected was a common space and time where all parties could focus on open-ended questions and give answers without feeling uncomfortable or worrying about interruptions (see Brubacher et al., 2015).

Selecting a holistic design is important when sampling units to ensure each level of operation represents the research topic at each level of the system (Yin, 2014). To compare SMA retention techniques, I used interviews with multiple SMA leaders and documentation of historical employment records to ensure saturation and alignment, leading to the themes regarding successful retention strategies. The selection of interviewees provided saturation through continuous data collection until the information was repetitious and new ideas failed to emerge (Fusch & Ness, 2015). SMA leaders provided leadership perspectives and breadth on successful retention strategies. The final comparison of SMA leaders with the documentation correlated with the success of retention strategies.

Ethical Research

When conducting a case study, researchers should avoid unethical practices by following formal, approval guidelines, such as those of the Institutional Review Board (IRB) and the Belmont Report (Belmont Report, 1979; Yin, 2014). The final selection of participants and beginning of an interview relied on participants' acceptance of the interview with a signed letter of participation and interview protocol (Appendix A). The informed consent form describes the study's purpose, the participant's requirements, the researcher's requirements, and participants' rights.

Participants were willing to answer the interview questions to the best of their ability. None of the participants declined to answer questions or ended the interview. Participants had the choice to withdraw from the study by notifying the researcher immediately of their intent to withdraw, which would have resulted in my not using the previously collected data. There were no incentives for participating in this study nor were there any penalties for withdrawing.

I will hold collected information confidentially in a locked, secure location for 5 years after the completion of the study, and then destroy it. The collected data will not be released to any outside persons, but a summary of participants' interviews was made available for the participants to review. Coding the data collected used in the study keeps participants unidentified and helps protect the quality of the study (Saunders, Kitzinger, & Kitzinger, 2015). The information collected for my present study will not be available for any future research without interviewees' consent. The processing of this research material is in accordance with the IRB (approval no. 02-02-18-0408724).

The identity of all participants in the study will remain confidential. I assigned identification codes to protect their identities. Participant confidentiality creates an ethical bond, provides security to the participant, and allows the researcher to view the collected information and data more objectively (Saunders, Kitzinger, & Kitzinger, 2015). By removing bias, the security of confidentiality provided a basis for a positive collaboration between each participant and me to find answers to the research question.

Data Collection Instruments

As the primary data collection instrument, a researcher collects the data and performs a full analysis of the information without introducing bias or personal interpretation (Qu & Dumay, 2011). My responsibility was to determine the interviewees' knowledge and to be the primary collector of data from the interviews. The recorded interviews were semistructured. The use of general, open-ended questions allows researchers to determine if the information collected is indeed sufficient when participants expand on their areas of interest (Qu & Dumay, 2011; Yin, 2014). The design of the interview questions should allow interviewees to convey their feelings freely and without conflict from the researcher (Anyan, 2013). Semistructured interviews allow participants to respond freely while leaving researchers the option of understanding and clarifying responses (Qu & Dumay, 2011). A clear definition of the interview structure by the researcher connects the interviewee with the research question (Wolgemuth et al., 2015).

To find the best interviewees for this research, the selection followed IRB guidelines and local laws. Using the IRB ensured the rights of human subjects were protected during the research interviews (U.S. Department of Health and Human Services, 2013). Creating quality, qualitative, research questions requires that a researcher define the research goal (Yin, 2014). The interview questions used should create a focal point for data collection that makes interpretation for the conclusion meaningful. Participants react better when they understand the benefits of the research. My role as the primary data collector was to explain the value of determining the

successful retention strategies currently used and following interview protocol (Wolgemuth et al., 2015). The use of solid, qualitative, semistructured questions lends reliability and validity to the data collection through the repetition of questions targeting the research topic (Yin, 2014).

Member checking also helps researchers collect data that are an accurate account of interviewees' responses by consolidating interpretation of the responses by SMA leaders. Member checking (i.e., respondent validation) provides reusable feedback from participants that lead to questions that confirm the accuracy of the researcher's interpretation (Årlin, Börjeson, & Östberg, 2015). Member checking and echoing responses to ensure the accuracy of the interpretation support the validity and reliability of the data collected. The researcher can enhance reliability and validity by following a case study process to compare more than one bounded system (Elo et al., 2014). Member checking is adaptable to various research methods, which allows the interviewer to validate the data and the interviewees to reflect on their responses (Simpson & Quigley, 2016). In this study, the transcribed SMA leader's interview data with an interpretation of the data for the original participant was reviewed for accuracy before data analysis begins.

Participants become more comfortable and their responses more reliable when they understand the research process (Wolgemuth et al., 2015). The interview protocol stages were: (a) engaging the participant through the consent form; (b) introducing in detail the importance of the research and stakeholders with a description of participant protection; (c) directing the bulk of the open-ended questions toward the research

question; and (d) closing the interview by thanking the participant for the valued information, which has been coded to protect participants' identity (Qu & Dumay, 2011). The interview protocol detailed in Appendix A provided a reference for participants. A defined research interview process introduces participants to the purpose of the research question by aligning their understanding of the research question with the possible conclusion of the research (Yin, 2014). I used the interview protocol for consistency and the protection of all involved.

As a secondary data collection method, I reviewed SMA documentation on retention of current mariners and retention policies at SMA. Procedures require both an understanding of and attention to the progression of the effect on the situation (Le Pelley, Mitchell, Beesley, George, & Wills, 2016). Business leaders must implement and monitor employment measures for the position and expectation of employment terms that lead to a sustainable working atmosphere (Vives, González, & Benach, 2016). The enhancement of employee loyalty comes from investing in employee training and providing support to assist in retention (Beynon, Jones, Pickernell, & Packham, 2015). A comparison of data on retention opportunities to SMA leader interviews revealed SMA leaders' actual use of retention strategies in the employment process.

Data Collection Technique

To collect data on successful retention strategies, I asked SMA leaders open-ended questions about their current retention practices and the process of mariner employment. The organization of interview-based, qualitative research delineates the sample universe, sample size, sample strategy, and case sources (Robinson, 2014). The

interview protocol form in Appendix A served as a reference for participants. First, I gathered the possible participant pool from the internet and compared the participants' level of leadership and involvement with retention strategies. Once I found participants, I initiated contact and explained my research topic. If the participant was willing, I conducted interviews via phone to provide flexibility in gathering data. Additionally, I requested company documents from human resources on an SMA's employment procedures, which gave me information on the SMA's alternatives for mariner retention.

During the phone interview, researchers observe verbal responses while the participant focuses on the interview (Qu & Dumay, 2011). Each interview lasted approximately 1 hour. My goal was to be a good listener and an active investigator during the interview (Yin, 2014). The use of a conversational technique during the interview helps the participant feel accepted as part of the research (Qu & Dumay, 2011). After the completion of all interviews, I studied the data for themes and ideas on retention strategies.

McNamara (2013) acknowledged the effectiveness of interviews that collect participants' information to support research in a qualitative study. The digitally recorded answers provided from all participant interviews were transcribed to provide the data necessary to analyze participants' answers. I examined answers for repetition that offered further data collection after the transcription at the end of all interviews. The final comparison of notes and transcribed data allowed interpretation of the pertinent data extracted to develop themes based in active responses for the final documentation of participants' answers.

As for document collection, I worked with the SMA human resources department to determine the positions aboard a vessel, the longevity of personnel holding those positions, the compensation given at each position, and any records of professional development. Throughout the research process, the researcher should understand the importance of bias and set constraints when selecting a research method and mining data to increase the reliability and validity of the research (Podsakoff, MacKenzie, & Podsakoff, 2012). I compared the documented data with the interview data to find associated data about improved performance. Bias results from a person's various exposures and life events (Berger, 2013). Collecting data from interviews along with documentation increases reliability and validity by comparing SMA leaders' perceptions with the documented performance data. The researcher's sampling boundaries provide validity and reliability in rigorous data mining until the data support the research question without allowing outside the focus to influence the study (Robinson, 2014).

During the data collection and subsequent follow-up discussions, member checking assists researchers in solidifying participants' responses (Årlin et al., 2015). Repeating questions and inquiring about responses are tactics researchers can use to confirm understanding of a participant's responses (Yin, 2014). The use of member checking in this study was substantial in solidifying the details of the various retention strategies as the interviewees reviewed transcribed data; this was done at each stage of the interview process (Birt, Scott, Cavers, Campbell, & Walter, 2016). To conduct member checking in this case study, I provided each participant with a transcript and brief summary of the findings gleaned from the transcript of the interview to enable that

individual to verify the accuracy of the data collected before I used it in the study. A researcher who incorporates a discussion about the data allows participants to express their understanding of the findings and ensures complete validation of the collected data (Simpson & Quigley, 2016).

Data Organization Techniques

Chikweche and Fletcher (2012) found using an unstructured interview process hindered the collection of reliable data. Semistructured data collection and organization, they said, aided in the interpretation and understanding of information gathered while reducing uncertain interpretations (Chikweche & Fletcher, 2012). Data organization by a researcher requires the usage of consolidating techniques throughout the research to collect, detect, and document in-depth, context data for reference (Yilmaz, 2013). Berger (2013) found that repeatedly reviewing data throughout the research process provided a holistic understanding of data interpretation and a variation in participants' perspectives.

As the primary collector of data, I digitally recorded SMA leader interviews with a portable voice recorder. I transcribed each interview to preserve the data and document the knowledge collected during the actual interview for future reference. Then I methodically analyzed the data according to the approach described in the next section on data analysis techniques.

The data extracted from this study could aid future SMA leaders in developing retention tactics that meet the needs of maritime educators. The coded data will be stored on a jump drive for easy retrieval throughout the research. I will be the primary data collector responsible for providing a safe interview process, protecting the quality of the

research by protecting the anonymity of the participants, and securely safeguarding data (Brubacher, Poole, & Dickinson, 2015; Qu & Dumay, 2011; Saunders, Kitzinger, & Kitzinger, 2015). I will keep all raw data in electronic form in a locked container for 5 years after the completion of the study for reference and verification of the data. Then I will destroy it.

Data Analysis Technique

Research requires more than data collection (Anyan, 2013). I analyzed the information to determine the best retention strategies at each SMA in the sample. Examining transcribed interviews for reoccurring statements increases reliability and validity as well as strengthens the case study (Yazan, 2015). I collected data from employment documentation and interviews to compare with literature themes found in ET through methodological triangulation. I used triangulation to systematically review all raw data from various sources to compile targeted concepts (Flick, 2017).

To analyze data, Merriam (2009) suggested that the best practices for qualitative data analysis included conducting the data collection and analyses in a consistent format and reviewing them simultaneously with data collected using the constant comparative method. Searching the raw data for repetition of ideas or themes until data saturation occurs helps a researcher turn concepts into theories (Roy et al., 2015). Reviewing data for repetition with methodological triangulation techniques assists the researcher with incorporating feedback of participants into retention themes (Roulston & Shelton, 2015). Methodological triangulation enabled me to narrow multiple responses into themes. In

this case study, I methodically reviewed all raw data to triangulate themes important to ET.

With each interview and resource review, more information emerged that enhanced the research. Data analysis measures information once the information considered becomes contextual and is associated with the research question (Grimmer & Stewart, 2013). Entering data into an Excel spreadsheet allowed referencing and manipulation of columns and rows to organize individual responses into themes.

Valence, instrumentality, and expectancy themes of ET permit leaders to target the level of an employee's motivation to complete outcomes (Barbare-Sanchez & Atienza-Sahuquillo, 2017). The use of job expectation themes outlined in the ET provides a broader basis than the use of financial factors alone (Herbert & Rothweel, 2016) to determine the value of various retention techniques used by SMA leaders. The leaders' understanding of ET motivation levels could motivate mariners continuously throughout their career aboard training vessels. SMA leaders can use the targeted ET themes to increase instructor retention by assessing mariners' needs and determining the best incentives for them to continue working aboard training vessels. SMA leaders can identify the retention strategies that work best in meeting the needs of mariners. This enables interpretations; assists in determining which areas of the ET conceptual framework the responses align to; and provides insights into why the successful retention strategies increase mariner retention aboard training vessels.

I analyzed each interview and SMA documentation into concepts using classic data analysis. While reviewing, I reconstructed the data into piles for the presentation of

the conclusion and isolate similar trends within each bounded system. I cross-compared the data on successful trends from multiple sources to identify the repetition of reoccurring language and themes defined in the organization, leadership, and retention. Once the themes were apparent, I categorized the repeated themes to triangulate the best practices that target the retention of mariners aboard training ships at SMA.

Reliability and Validity

Dependability, credibility, transferability, conformability, and authenticity enabled future researchers to accept the reliability and validity of current research by removing negative perceptions of the study and researcher bias (Elo et al., 2014). Through defining the research process, data saturation focuses on responses directly related to research questions (Palinkas et al., 2015). Data saturation is met when no new ideas or themes emerge (Roy et al., 2015). I asked participants questions that provided unbiased responses that were comprehensive and related to SMA mariners to build retention strategies.

Reliability

Research progression better represents the research process and creates an acceptable research conclusion by intertwining qualitative research design with the known biases of the researcher (Roulston & Shelton, 2015). The progression of reviewing transcribed data that follow member-checking techniques provides solid data for methodological triangulation. Vroom (1964) created the ET to categorize common themes expected for retaining people in businesses. The categorization of data solidified through member checking provides dependability (Årlin et al., 2015). The structure of a

study provided dependability by establishing a thorough review and interpretation of data at various stages to determine which retention techniques related to the proven themes and are viable for industry implementation.

Validity

There are various approaches to prove creditability, transferability, and confirmability in validating the quality of the data interpretations in research (Grimmer & Stewart, 2013; Roulston & Shelton, 2015). Understanding bias is the first step in creating better techniques for controlling creditability in one's research (Roulston & Shelton, 2015). The implementation of validity through member checking demonstrates a capstone review of data collected (Årlin et al., 2015; Simpson & Quigley, 2016).

To assist in limiting bias and encouraging the transferability of studies on retention in the maritime field, I sorted the data into themes delineated by the ET to represent common valence, instrumentality, expectancy of job expectations (Vrooms, 1964). The process of applying repetitive interviews to more than one participant increased validity by transferring the process from one participant to another to scour for data (Houghton et al., 2013). Houghton also proposed triangulation to increase validity in finding themes for application in future studies. The ability to repeat an interview multiple times with various SMA leaders created a situation where the validity was confirmed by repetition of the process while data mining for reoccurring themes. The conclusion of the study confirmed that the participants' insights were valid and the re-creation of the study usable in the future. The outcome of the research may enable others to build models for future research (Abanda, Vidalakis, Oti, & Tah, 2015).

I used participants' responses to interview questions to determine the themes of the perceptions of SMA leaders found in interview responses to demonstrate confirmability by verifying understanding through data review and methodological triangulation. To improve confirmability, analysis of data collection compared to previously recognized measurements in established theory creates verifiable themes (Grimmer & Stewart, 2013). The use of member checking in this study allowed for verification of data by recalling content and confirming understanding by Vroom (1964) established themes. In each interview, I restated all data collected from the participant to confirm understanding and accuracy. At that point, data grouped into themes showed conformability to job expectation theories previously outlined by the ET.

Finally, data saturation helped support validity by improving creditability and confirmability. The participant interviews continued to include repetition in themes and responses compared with similar outcomes to confirm saturation of data (Yazan, 2015). At the end of the data analysis, data saturation was confirmed when no further themes or ideas emerged (Fusch & Ness, 2015; Roy et al., 2015).

Summary

The result of this qualitative case study was the identification of successful strategies used by SMA leaders to retain merchant mariners aboard training ships. Section 2 contained an explanation of the case study method and research design to support interviewing SMA leaders. In selecting the interviewee population, the choice of participants included SMA leaders who have supervised merchant mariners aboard SMA training ships.

Section 2 also contained a discussion of the ethical responsibility of both the interviewee and the researcher, who must protect all participants, and the right of interviewees to participate voluntarily and withdraw at any time without explanation. This section also included an outline of the data collection process and analysis for future researchers who may choose to replicate the study. Finally, a reliability and validity subsection included information about the soundness of the study. Determining the successful retention techniques employed by SMA leaders could enable future researchers to perform additional research that would evaluate the relative effectiveness of these successful retention strategies.

Section 3 contains the researcher's findings and analysis. I discussed the various themes found during data mining and compare to literature and Vroom's ET (1964). I also reflect on the implementation of best practices on professional performances and social change. Finally, I made recommendations for further actions and research concepts for the future before giving my reflection and comprehensive conclusion.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative, single case study was to identify retention strategies used by U.S. SMA leaders to retain mariners aboard training ships. After selecting an SMA located in the United States, I conducted five semistructured interviews with SMA leaders who have various levels of oversight of ship operations, became familiar with the SMA mission statement, and reviewed employment processes to complete the examination of retention strategies. Four themes supporting successful retention strategies emerged from the analysis of the interview data: competitive compensation, professional development to maintain or improve performance, recognition for responsibilities and performance, and transparency and trust to create a positive work environment. First, participants indicated that competitive compensation at various levels (e.g., wages, benefits, and retirement plans) was an important part of employment package. Second, participants acknowledged that professional development to maintain or improve performance added value to the employment at SMA. Third, participants identified recognition for performance and responsibilities as a strategy for increasing retention at SMA. Fourth, participants identified trust and transparency in efforts to create a positive work environment as essential to creating value in employment and improving retention. An examination of archival records (i.e., employee-related organization documents and guidelines) reinforced the four themes identified from the analysis of the interview data.

Presentation of the Findings

The research question for the qualitative case study was the following: What successful retention strategies do SMA leaders in the United States use to retain mariners aboard training ships? To answer the research question, I used open-ended sample questions (see Appendix A) to determine SMA leaderships' knowledge of retention strategies and explored employment process documents for the institutional retention processes. Four themes related to successful retention strategies that emerged from the data analysis were: (a) monetary value of employment and benefits must be comparable to what is available in the maritime industry, (b) professional development is necessary to maintain maritime industry credentials and improve employee performance within the organization, (c) recognition and understanding the uniqueness of being a mariner as a profession are important to create value for the employee, and (d) transparency and trust increases communication and the understanding needed for successful retention.

Theme 1: Competitive Compensation

Compensation and benefits affect job performance outcomes (Raza, Kanwal, Rafique, Sarfraz, & Zahra, 2017). Compensation and benefits may be in forms of intrinsic (self-motivated) or extrinsic (financial) methods used to improve retention strategies (Kanfer & Chen, 2016). Intrinsic and extrinsic methods of motivation, when used separately, improve employee outcomes and influence an employee's perspective on what methods are best practices for their operations (Kuvass, Buch, Weibel, Dysvik, & Nerstad, 2017). Researchers have found a direct correlation of an employee's perception of actual pay level in an organization and the relative pay level in an industry with job

satisfaction (Sieweke, Kollner, & Sub, 2017). Table 1 provides the frequency comparison of equal compensation for the mariner profession. Participants acknowledged wages were below industry standards, and most SMA employees stayed aboard training vessels for intrinsic reasons rather than extrinsic ones.

Table 1

A Frequency Comparison of Competitive Compensation

	Interview Question	Number of References
Participant 1	1,2,3,5,6,8	5
Participant 2	1,2,3,4,5,8	15
Participant 3	1,2,3,5,7,8	4
Participant 4	1,3,8	5
Participant 5	1,2,3,7,8	8
Organization Documents	N/A	16

Four (80%) of the participants found that SMA leadership did not provide regular incentives or awards for the maritime achievements of the mariners aboard the training vessel. Three (60%) participants indicated the organization lacked the resources to match the maritime industry compensation and benefits. In fact, one participant stated, “I don’t think that the parent organization values mariners.” The participants realized the compensation for mariners does not compare to maritime industry standards. The participants also noted SMA leadership must use alternatives to compensation and wages to develop successful retention strategies.

Various extrinsic and intrinsic motivation methods combined may improve performance objectives by creating an incentive structure for employees (Kanfer & Chen, 2016). Four (80%) participants stated that SMA leadership provided intrinsic motivation and internal satisfaction by improving accommodations and the lifestyle aboard the

vessel as a possible successful retention strategy. Four (80%) participants mentioned flextime in their work rotation as another successful retention strategy. Two (40%) of the participants mentioned that SMA leadership provided longevity and appreciation awards to SMA employees. The participants' tone when describing these alternatives to monetary compensation was positive.

An examination of SMA documents revealed SMA leadership strives to distribute evenly the internal equity of compensation with the structure of external employment packages to create competitive employee positions within the organization. The two main compensation retention strategies were pay that reflects experience and longevity and benefits that are flexible to the employee's needs. Undermining employee value by inaccurately compensating for employment responsibilities decreases motivation and reduces productivity (Sieweke et al., 2017).

The organizational leaders overseeing SMA operations require SMA employees to set review metrics for each internal department regularly to measure SMA performance and resource allocation. SMA leaders compare and review the data obtained during reviews to determine the allocation of internal department resources, align compensation for employment to reflect the corresponding employee market values, and balance the workload assigned to each employee classification. Overall, the SMA leaders allocate the limited resources to support compensation and benefits but do not tend to meet the needs of the mariners aboard the training vessels. Each participant found value in aligning compensation and benefits with the responsibilities required by mariners on board the training vessel as shown in the response to Question 3.

Theme 2: Professional Development

When organizational leaders invest in enhancing employee job performance through training and professional development, employee job satisfaction increases (Rony & Suki, 2017). Employees are the working system of the organization, and investment is necessary to train and develop the employees to perform at their highest ability (MacKay, 2015; Rodriguez & Walter, 2017). For example, Sartori, Costantini, Ceschi, and Tommasi (2018) defined the training and development of employees as a lifelong learning program required to empower employees to improve job performance. Organizational leaders' investment in professional development creates job security and credibility for employees that in return creates value for the organization (MacKay, 2015). Table 2 represents the frequency of participants' responses to the interview question referencing professional development as a strategy to retain mariners aboard the training vessel.

Table 2

A Frequency Comparison of Professional Development

	Interview Question	Number of References
Participant 1	2,4,7	4
Participant 2	1,4,7	10
Participant 3	3,4,5,7	9
Participant 4	1,3,4,7,8	21
Participant 5	1,2,4,6,7	7
Organization Documents	N/A	36

Interview Question 4 directly represented professional development as related to retention strategy. All participants (100%) mentioned professional development as a possible motivation for improving the SMA mariner retention. Four (80%) of the participants acknowledged that SMA leaders budget a small amount for conferences and

training. Professional development is a valuable tool for employees to increase skill and job performance (MacKay, 2015).

Four (80%) participants stated that SMA leaders provide funding to maintain or upgrade merchant mariner credentials. Each of the participants (100%) reinforced the belief that SMA leadership is consistent in supporting the need for a stipend for professional development. The participants reiterated that professional development is focused on mandatory human resource training and maintaining merchant mariner credentials. Training and development targets educational opportunities to empower or enhance employee performance (Sartori et al., 2018). SMA leaders may find it beneficial to expand professional development opportunities for SMA mariners aboard the training vessel.

An examination of the SMA documents indicated that SMA leadership implements a personalized development program tailored to each employee's performance and development. The process requires aligning performance and professional development requirements to enhance the organization's continuous improvement in performance. Feedback from departmental leadership allows employees to set goals pertaining to their individual needs, perform employee duties while filling gaps, and improve work skills in various organizational tasks. For example, the mariners aboard the training ship might use organizational funds to maintain their license or attend a conference on educational assessment techniques. The SMA leadership does not define the requirements for professional development but instead allows the employee to

determine whether the professional development is necessary through discussions with the supervisor.

Theme 3: Recognition for Performance and Responsibilities

The three R's—respect, recognition, and rewards—provide organization leaders with alternatives for increasing employee satisfaction (Kumar & Mathimaran, 2017). Makokha, Namusonge, Kanali, and Milgo (2014) recognized that the use of employee development opportunities improves the employee's self-value, which allows the organization to succeed. Understanding the employee's value through social recognition, and not solely financial payment, can increase employee creativity in ways that lead to an increase in organizational performance (Mehta, Dahl, & Zhu, 2017). Therefore, recognition for performance and responsibility from leaders provides motivation for the employee and employer to improve operations. Table 3 represents the participants' responses related to recognition strategies used by SMA leaders to retain mariners aboard the training vessel.

Table 3

A Frequency Comparison of Recognition for Performance and Responsibilities

	Interview Question	Number of References
Participant 1	1,2,3,6,7,8	11
Participant 2	1,2,3,4,6,7	24
Participant 3	3,4,5,7	6
Participant 4	3,4,6,7,8	16
Participant 5	1,2,3,5,6,7,8	8
Organization Documents	N/A	35

Two of the participants (40%) acknowledged recognition for longevity; however, no participant believed that longevity was a positive reward in performance. Four (80%)

participants mentioned that the organization leadership overseeing operation and resource allocation did not fully understand the value and essential part the mariners play in the organization's success. One participant (20%) stated, "Really have not program within the institution for recruiting and retaining mariners for the training ship." This disconnect provided a view of misunderstanding between operation procedures and SMA leaders.

Rewards as a retention strategy is misunderstood and could increase retention by creating better job satisfaction (Bussin, 2018). Two (40%) participants acknowledged that the recognition awards given by organization leadership do not generally pertain to the performance of the training ship employees, being structured primarily to reward other organizational employees. One participant (20%) felt the rewards provided by leadership were directed toward faculty initiatives and not mariners aboard the training ship.

An examination of SMA documents showed processes to promote employee engagement and retention. The recognition process reflects contributions to the organization, not specific employee duties. This disconnect was apparent during the discussions of interview Question 5, where the response rate was low among the participants. This was apparent when one participant directly responded, "No," when asked if there were any types of rewards or incentives offered at their SMA. The recognition processes align with the leadership's evaluation of performance and the performance standards associated with the mission and goals of the organization, which may not align with roles and responsibilities of mariners aboard the training ship. Organizational leadership uses the recognition processes to encourage retention and the

achievement of goals even though they may be unaware of the how the mariners' operational activities on the training ship support the organizational goals.

Theme 4: Transparency and Trust to Create Positive Work Environment

According to Ahn, Lee, and Yun (2018), the relationship between ethical leaders and employees affects their job performance. The use of two-way leadership communication, with active listening and feedback, motivates employees through nonfinancial obligations (Florea & Gilmeanu Menea, 2016). Trust created through organizational policies and processes can create a positive environment for employees if the policies are concise and relate directly to the operational processes (Verburg et al., 2018).

Participants' responses and organizational policies reflected some level of transparency and trust. Two participants (40%) responded that the SMA tries to create a positive culture for their employees. Transparency by organizational leaders creates an open work environment where operations promote interactive relationships and the setting of mutual goals for the organization, which builds trust and loyalty (Al Shobaki, Abu Naser, & Ammar, 2017). Table 4 shows the frequency of participants' responses associated with the use of transparency and trust techniques to improve employee climate for each of the interview questions. Participants made 131 references to efforts to create trust and transparency within the organization, with 68 referring to successful retention strategies, 32 referring to improving communication efforts, 23 referring to empowering the mariner in employee roles, and 16 referring to the positive culture and mission of the institution.

Table 4

A Frequency Comparison for Transparency and Trust to Create a Positive Work Environment

	Interview Question	Number of References
Participant 1	1,3,4,6,8	7
Participant 2	1,3,4,5,6,7,8	10
Participant 3	1,3,5,6,8	3
Participant 4	2,3,4,6,8	17
Participant 5	1,2,3,5,6,7,8	12
Organization Documents	N/A	26

Five (100%) SMA leaders noted trust is part of the SMA culture and results in employees who tend to adhere to the mission of the organization. One participant (20%) stated, “You just hope you get the best people who like the mission.” All SMA leaders mentioned the lengthy onboarding and cultural improvement programs, which encourage employees to align with the mission. The onboarding process involves both formal orientation to organizational policy and regulations and the creation of a cohesive culture through regular training. Even then, one participant stated, “I don’t have real expectation we can maintain a captain or chief or assistant for more than 5 to 10 years.”

Four (80%) participants reported the SMA leadership relied on a mariner’s previous industry relationships in the maritime industry to recruit and encourage peers to fill positions aboard the SMA training vessel. In fact, one participant (20%) mentioned, “They (officers) are all retired.” This eludes to the mariners aboard the vessel being from a pool of applicants from the maritime profession but are not in the prime working years to earn retirement. Three (60%) participants indicated SMA leadership fostered employee empowerment by setting goals for employees to accomplish within the direct area of responsibilities aboard the ship. Four (80%) participants recognized the need for all

stakeholders within the organization to understand the uniqueness of the maritime profession in order to create an attractive work environment.

Verburg et. al (2018) indicated trust as an area within the organization required for building stronger performance and culture. Leaders can develop positive personal actions and interaction by communicating their understanding of employees' desire to integrate their tasks with organizational goals (Ahn, Lee, & Yun, 2018; Florea & Gilmeanu Menea, 2016). One participant indicated that trust is a value of the SMA culture, whereas the remaining participants associated trust as expected and allowed to apply their maritime industry knowledge while performing their daily operations on board the training ship at a high level.

Review of the SMA documents indicated that the application of trust and transparency as a retention strategy did not tie directly to the employees in-ship operations but did affect overall organizational culture. The lack of references to trust and transparency throughout SMA documentation may indicate that organizational leadership's primary focus is on hiring employees rather than retaining them. In fact, the SMA documents referenced an employee survey that indicated a mixed perception within the organization about leadership's desire to create a culture of trust and transparency.

Findings Related to ET

Vroom's (1964) ET reflects motivational strategies through valence, instrumentality, and expectancy. Each of these themes represents an initiative to motivate employees towards institutional goals based on employee expectation and effort (Ballard, Yeo, Loft, Vancouver, & Neal, 2016). Kanfer and Chen (2016) found motivational

strategies are best when employee and organizational needs align towards an end goal. The SMA leaders developed retention strategies based on employee needs that reflect each ET theme (valence, instrumentality, and expectancy) to improve longevity.

Valence refers to the initial reward system employees require to perform tasks and reach the goal (Van Eerde & Thierry, 1996; Vroom, 1964). The employee has intrinsic and extrinsic compensation needs that employers must satisfy (Singhapong & Winley, 2017). SMA leaders complement financial compensation, medical benefits, and retirement benefit packages with flexible work schedules and opportunities to earn extra pay, and a work environment that features excellent food and living accommodations for the mariners aboard the training ship.

Instrumentality refers to the employees' perception of whether the level of performance required is sufficient to attain the goal (Kuvass et al., 2016, Vroom, 1964). The performance and recognition awards given by SMA leaders acknowledge the employee for performance and longevity, among other employee outcomes, to encourage employees to support organizational operations. The use of rewards allows the employer to recognize an employee's level of engagement and creativity to achieve organizational goals (Van Eerde & Thierry, 1996).

Expectancy refers to the ability to perform the goal at a proficient level (Ray, 2016). Employers need to determine if the employee can achieve the goal (Ballard et al., 2016). SMA leaders supply physical resources so the mariners can perform daily operations, provide funding to create professional development opportunities, maintain mariner's professional credentials, or take knowledge-based courses to improve work

skills. Combining the ET themes allows leaders to create motivation at various levels and initiate creative alternatives to increase effort, performance, and development of the best techniques and goals to offer the best employment opportunities (Choi & Whitford, 2016; Herbert & Rothwell, 2016; Vroom, 1962).

Applications to Professional Practice

Using best practices within a business may create a successful work environment that encourages employee motivation to meet organizational goals and increase retention. Wang and Chen (2017) suggested organizational leaders implement the following actions to improve retention strategies: (a) improve the quality of field leadership, (b) invest in professional development, (c) implement a strategic hiring process, (d) take advantage of recognition and communication in the organization's culture, (e) use benefits and perks, (f) have flexible work arrangements, and (g) provide equity incentives. ET provides themes of valence (intrinsic and extrinsic reward associated with achieving a goal), instrumentality (belief that achieving the goal will result in receiving the reward), and expectancy (belief that one's efforts will result in reaching the goal) as motivational methods (Vroom, 1964).

Participants found SMA retention strategies reflect the use of each ET theme, valence, instrumentality, and expectancy. Each theme represents a part of what the mariners need or want. Valence represented the highest valued impact of need, wages, and benefits. Each participant verified the need to have competitive wages and benefits equal to those in the maritime industry to recruit and retain mariners. Other SMA leaders

may find beneficial results in retaining mariners by investing in financial options to retain mariners aboard training ships.

Instrumentality had the lowest response rate on want or need because the organization has limited opportunities for promotion aboard the training vessel and recognition rewards that do not directly correspond with the duties and responsibilities of mariners aboard the training vessel. The investment by SMA leaders in recognizing mariners aboard the training ship might build trust and transparency.

Last, expectancy seems met by the organization providing enough resources to complete goals and professional development to maintain or improve knowledge-based proficiencies through conferences and continuing education programs. SMA leaders could develop professional development opportunities to engage mariners in organizational goals while promoting their industry knowledge. The use of professional development may provide an alternative to promotions within the ranks by providing expertise in the field. Each theme is represented in the SMA leadership retention strategies to meet the ET theory of using valence, instrumentality, and expectancy as a motivational tool. Other SMA leaders might provide their own institution with stronger retention strategies. The use of valence, instrumentality, and expectancy creates an opportunity to measure motivation levels to meet the needs of the employee and organization (Van Eerde & Thierry, 1996; Vroom 1964).

Continuous leadership interaction with employees is necessary to determine the motivational tools needed to create competitive employment packages and a rewarding employment opportunity (Choi & Whitford; Herbert & Rothwell, 2016). Leaders who

continuously maintain policy and procedures to represent best practices create stronger and more successful retention strategies (Güss, Burger, & Dorner, 2017). According to information found in the SMA documentation, SMA leaders are working with the organization to provide continuous feedback to improve retention strategies.

Leaders should use policy and guidelines to align organizational practices with best practices (Güss et al., 2017). In the SMA leadership surveys, the employee responses provide SMA leaders with the information needed to develop additional retention strategies and improve existing strategies in ways that better met employees' needs. To maintain best practices, leaders should follow the current trends of employee's needs and wants to ensure a positive work environment (Jonas, 2016). Skaalvik and Skaalvik (2011) associated motivation with a sense of feeling and emotion to create satisfaction with employment. Addressing the needs and wants of employees allows the SMA leaders to create and offer effective retention strategies.

Implications for Social Change

Leaders control the atmosphere in which employees decide to engage actively in the operations and provide ethical pro-social behavior in the workplace (Lui, Liao, & Wei, 2015). The development of best practices allows leaders to provide empowering work environments that enhance and increase creativity and increases job satisfaction (Wong & Laschinger, 2013). SMA leaders using best practices, such as flexible work schedules and hiring part-time employees, allow the mariners on the training ship to build initiatives for the cadets seeking employment in the maritime industry. Creating a

positive organizational culture allows individuals a healthy work environment that promotes retention (Mendes & Stander, 2011).

Positive organizational culture creates a better environment in which to train cadets for the unique maritime industry and enables the mariners aboard training ships to connect cadets with maritime experts while grooming them for future employment in the U.S. fleet. Retaining mariners aboard training ships creates the highest quality mariner so society has competent mariners to transport commodities to stimulate economic growth in the United States. SMA leaders who implement the findings from this study can provide a foundation to improve retention and create a positive work environment. As a result, SMA mariners will become more confident in their work environment and build stronger relationships between cadets in training and opportunities in the maritime industry.

Recommendations for Action

The researcher's findings from this study provide a foundation of concepts relating to the Vroom's ET employee's need for motivation or the expected goals set by employees. Vroom (1964) delineated themes of valence, instrumentality, and expectancy to motivate employees to meet goals. The use of empowerment by leaders encourages employees with authority and responsibility (Wong & Laschinger, 2012). Business leaders who adopt business coaching to create career paths for employees influence the employee's professional and personal performances (Gatlin, 2014). The results of this study may assist SMA leaders in development and implementation of successful retention strategies to create a motivating atmosphere for mariners and cadets to excel in the

maritime industry. Based on the findings, I recommend SMA leaders take the following actions:

- To balance equal compensation, determine a financial compensation for mariners aboard the training ship that competes with the maritime industry wages to reduce turnover with the competitive maritime industry.
- To enhance mariner performance, determine a flexible rotation for oversight of the training ship rotations to reduce the work overload of a 24/7-day operation and to coincide with the mariner work-home lifestyle as done in the maritime industry.
- Create a professional development program that allows mariners to become part of a select group of experts within the maritime field and assist mariners with maintaining their credentials.
- Create a business coaching plan for mariners to develop diverse skill sets and to engage mariners in the organization's daily operations.
- Develop maritime recognition awards to recognize the uniqueness and responsibility of the mariners overseeing the maritime training vessel.
- Build trust and transparency by improving policy and regulation manuals to reflect the distinctive operations aboard the training vessel and improve operational understanding for the mariners and the organization.

Recommendations for Further Research

SMA leaders are in positions to create alternatives that improve the overall performance of the organization and increase the retention of mariners aboard training

vessels. Leaders who understand how to use employees' values as motivation influence employees' production efforts toward goals (Vroom, 1964). The relationship of the perceived and recognized traits of leadership styles by the leader and employee influences the progress towards the goals (Alipour, Mohammed, & Martinez, 2017; Ford & Harding, 2016). The findings in this study can provide insight on the continuous improvement of the relationship between SMA leaders and mariners. Further research in the following areas may be beneficial to retaining mariners: (a) determining what mariners' value, (b) determining the characteristics of an ideal coaching program to better integrate mariners into an SMA, and (c) researching the success of retention strategies at other SMA.

The limitations of the study were due to the restriction of data sampling. First, it is important to understand what the mariner's value and require as motivation for employment. This study did not account for the mariner's needs or values directly. Second, the sampling of SMA leaders was limited to one SMA in one region instead of across the nation. There may be other alternatives available and mariners in various regions may have different perspectives. Lastly, the various techniques used by SMA leaders in other regions were not considered. Researching those might provide further insight on best practices of SMA leaders. For example, a comparison through a multiple case study of other U.S. SMA leaders and mariners would help determine if the findings for other regions confirm those from this study, thus providing a larger pool of data to increase the trustworthiness of the findings. The final determination of successful

strategies on how to retain mariners at SMA would be found by validating the mariners' acceptance of the successful retention strategies used across the United States.

Reflections

In this qualitative single case study, I explored retention strategies used by SMA leaders and associated the expectancies of employees set by Vroom's ET. The association of institutional practices with theory benefits operational output in professional performance and societal expectations.

I now understand the importance of conveying knowledge throughout an organization to improve operation and quality of employee performance. Through my research, I found the importance of using theory as a foundation to improve institutional procedures for employees to develop a positive work place. In addition to the application of academically proven theory, I discovered the importance of leadership qualities. It is imperative for leaders to understand the needs, expectations, and inspiration used to motivate employees so that they feel appreciated and valued as they progress towards goals. The journey to completing my doctoral study required my commitment, improvement in communications, appreciation for knowledge, and consideration of ideas from various perspective based on established theory.

Conclusion

The purpose of this qualitative single case study was to explore SMA leaders' strategies to retain mariners. In Section 1, I reviewed literature referring to the uniqueness and opportunities of the maritime industry, the issues associated with retaining employees in various professions during periods of shortages, the intricacy of trainings mariners, and

compared various theories to determine those that best fit together into a conceptual framework for the study. In Section 2, I described my role as the researcher, developed a process for properly delving into data collection and analysis, and verified the validity and reliability of my research. In Section 3, I analyzed the interviews of five SMA leaders to determine the best retention practices to retain mariners aboard training ships, and I reviewed institutional documents to compare organizational processes with operational procedures. Four themes emerged from my data analysis: (a) compensation must reflect the economic needs of mariners and be competitive with maritime industry; (b) providing professional development is necessary to maintain mariner's maritime industry credentials and knowledge; (c) rewards and recognition efforts need to reflect the uniqueness of the program or the mariner; and (d) the need to increase transparency and trust to increase retention. The researcher's findings from the study provide insight into effective leadership strategies for retaining mariners aboard SMA training ships. Additional research is necessary to determine exactly what SMA leaders and mariners require as resources to fulfill the job satisfaction of the mariners while motivating them to work alongside SMA leaders to successfully accomplish SMA goals in a positive work environment.

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Appendix: Interview Protocol–SMA Leader

The following list of questions demonstrates the type of questions asked during the interview process. The interview process should take approximately 1 hour and allow the participant to answer questions freely. The list of questions below is to help structure the interview.

Introduction questions to engage participant in communicating position of an SMA leader:

1. How do you oversee the process of retaining mariners aboard the training ships?
2. What are the various employed positions found aboard the training ships?

The second set of questions will provide the bulk of information on retention techniques used at the SMA.

Participants' open-ended interview questions:

1. What successful retention strategies do you employ to retain mariners on SMA training vessels?
2. How do these successful strategies benefit professional development of the employees?
3. How do these successful strategies, like rewards, as positive reinforcement to engage mariners in employment aboard a training ship?
4. What strategies do you practice to improve transparency and trust with mariners aboard the training ship?

5. What strategies do you use to ensure mariners aboard training ships have what they need to perform their jobs?
6. Is there any additional information you would like to share about successful retention strategies that you have not yet mentioned in this interview?

The closing of the interview will employ an open-ended question to encourage participants to add any further ideas or suggestions that they feel are pertinent to the current research. This process concludes with an expression of thanks for their time and participation, along with an acknowledgment that their information will provide a valuable resource to the research and to the maritime industry:

This concludes my set of questions. I would like to offer you the chance to comment on any retention benefits, compensation, or ideas on how to increase the retention of qualified mariners aboard training ships to provide the highest quality education to your cadets.

To ease the interview process, the researcher can interject personal understanding of the research issue by describing personal experience related to the subject to build a personal relationship between interviewer and interviewee (Berger, 2013). This open interaction can facilitate a positive response once the interviewer and interviewee have built a respectful relationship.