

Running head: EVALUATING A FIRE TRAINING PROGRAM

Evaluating the Fire Training Program for the South Bay Fire Department

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CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions or writings of another.

Signed _____

Abstract

The South Bay Fire Department is a semi-diverse, proactive volunteer fire department that is committed to optimal customer service and to the development and performance of its members. The problem was that the South Bay Fire Department did not have a means to evaluate the department's training program and could not determine how its training program was enhancing the skills and readiness of its members. The purpose of this research project was to identify best practices and performance outcome measures for training programs that the South Bay Fire Department may adopt and implement. A descriptive methodology was used to guide this research. This design was achieved by reviewing literature, conducting surveys and conducting interviews. The descriptive research methodology that guided this research asked four questions, (a) What are other fire departments doing to measure the quality of their training programs? (b) What are some performance-based outcome measures from the private industry that may be applied within a fire training program? (c) What evaluation tools exist within the public and private education sectors? (d) What are some performance measurements that the South Bay Fire Department should consider for the fire training program? As a result of this research, some performance measuring concepts were identified and some new techniques were discovered that may prove relevant or may be modified and implemented into the South Bay Fire Department's training program.

Table of Contents

Certification Statement..... 2

Abstract..... 3

Table of Contents..... 4

Introduction..... 5

Background and Significance..... 6

Literature Review..... 7

Procedures..... 14

Results..... 15

Discussion..... 19

Recommendations..... 21

References..... 26

Appendix A South Bay member interview questions and answer summary..... 27

Appendix B Fire Training Officer Interview questions and answer summary..... 31

Appendix C Training Evaluation Survey to Fire Officers..... 35

Evaluating the Fire Training Program for the South Bay Fire Department

Introduction

The South Bay Fire Department is located in rural northern Olympia, Washington. The volunteer department was established in 1953 by a group of concerned community members. Although the department has evolved and grown over the years to become the dedicated and respected department that it is it still lacks the ability to legitimately and accurately determine the impact and performance outcomes of its fire training program.

The problem is that the South Bay Fire Department does not have a means to evaluate the department's training program and cannot determine how its training program is enhancing the skills and readiness of its members. The purpose of this research project is to identify best practices and performance outcome measures for training programs that the South Bay Fire Department may adopt and implement. The descriptive methodology that was used to guide this research was achieved by reviewing related literature, conducting a survey with fire training officers and by interviewing Fire Training Officers as well as members of the South Bay Fire Department in order to identify best practices for a fire training program. Four primary questions guided this research. (a) What are other fire departments doing to measure the quality of their training programs? (b) What are some performance-based outcome measures from the private industry that may be applied within a fire training program? (c) What evaluation tools exist within the public and private education sectors? (d) What are some performance measurements that the South Bay Fire Department should consider for the fire training program? Research was conducted in order to identify best practices that the South Bay Fire Department may use to evaluate and ideally improve its training program.

Background and Significance

The culture within the South Bay Fire Department holds training in high regard at all levels of the organization from the Fire Chief to the entry level firefighter. Fire Chief Brian VanCamp has been a part of the South Bay Fire Department Since 1973 and as a dedicated member promoting through the ranks he was officially appointed as the department's first career Fire Chief in 1999. As an Executive Fire Officer (EFO) and a designated Chief Fire Officer Designee (CFOD), Chief VanCamp has led the South Bay Fire Department to become the progressive department that it is today. Optimizing and providing beneficial training is a primary focus for the department. Improvement areas are often difficult to identify because there are no formal means to determine how, if, or to what extent the training program is impacting the department's provided service to the community. The Department has no means to measure the capabilities, skills, or improvements in a qualitative manner. It is not a simple or safe concept to assume that firefighters will acquire and maintain emergency response competence and efficiency based solely on the fact that they have received training. While fire service members or groups receiving training may be evaluated for having knowledge, skills or abilities at the end of any given training session, there is still no over-arching managerial system in place that measures, qualifies or attributes the results of the training program. All legally required fire service training is conducted by the Fire Department and it is recorded accordingly. The department is currently without an effective bridge that links the holistic relationship between the training delivery program and an accurate method of evaluating and assessing the true response skills, competence and capabilities of the members receiving the training. It is intended that this research will help contribute to the U.S. Fire Administration's goal of improving the fire and emergency services' capability for response to and recovery from all hazards.

Literature Review

A literature review was conducted in effort to identify performance measures and evaluation tools that may exist and might be used within a fire training program. Special attention and focus was steered towards performance measurement within the public and private educational sectors, existing fire service performance tools, and within the private industry.

Defined by (Dictionary.com) the word performance is, “the manner in which or the efficiency with which something reacts or fulfills its intended purpose.” Per this definition, the concept of performance can be broken down and analyzed into the relationship of two elements: the efficiency of something and what it was expected to do.

McDavid and Hawthorn (2006) emphasizes the importance of evaluating a program’s effectiveness by encouraging the outcomes not only be reviewed and collected but also studied in detail comparative to the predetermined goals in order to isolate the differences and shortfalls. This should be done not only to attribute successful portions of the program but also to identify program problem areas that may need correction.

A manager trying to determine performance should also be mindful not to mistakenly attribute program credit to observed outcomes. If the outcomes are favorable, are they really due to the specific actions or activity conducted in the program? In order to accurately credit the program to the results and outcomes observed then three criteria must be assessed. The first is to verify if the action within the program occurred before the observed outcome. The second is to confirm that the actions affecting the results occurred in the same location or at the applicable timing, depending on the type of data noted. The third factor is to eliminate or verify that there are no other possible relevant factors that may be accredited for the outcomes McDavid & Hawthorn (2006). A fire training program manager for example may notice that a crew

performed well on an emergency and conclude that it must be due to a recent refresher class delivered, however it may be possible that the crew was already optimally performing at that skill or perhaps the skills may have been obtained by other means outside that particular class.

Johnson (2005) encourages that educators challenge students by advising students that the material they are reviewing may be above their level and that they are being introduced to information that not everyone may be ready for. In this attempt the message is being sent that the instructor is providing them advanced material because it is believed that they are capable of learning it. With this a challenge exists for the students to take extra effort to learn and ideally master the material at hand. One example provided was case where a second grade class was informed that they were being introduced to fourth grade curriculum. Benefits of this technique went past the obvious higher level of student learning but also included confidence building as well as motivating the student learning process.

Oki (2009) elaborates on focusing on the curriculum content for an educational program. One debate notes two positional concepts referred to as breadth of knowledge versus depth of learning. The breadth of knowledge concept encompasses the values of a wider ray of subject matter being taught that includes more class topics. This concept benefits an overall education for the learner having a wider and broader education. Whereas the depth of learning concept supports fewer subjects covered but that each subject covers a more thorough level of understanding. The Depth and Breadth concepts proved valuable to this research as the training program was reviewed for needed subject matter.

The No Child Left Behind Act follows the depth of learning concept. Often however, as many schools strive to gain compliance with the act they tend to eliminate many subjects covered at schools as the focus moves towards the specific subject matter outlined within the

act's requirements. Some subject matter is lost such as sex education, sports or foreign language. It is argued that the student's education becomes less rounded, although more proficient at the core content. Oki (2009) takes position that the choice to promote the breadth or depth concepts should be the decision of each individual school system, as one model does not fit for all educational sections. Yong (2009) points out that the No Child Left Behind Act, causes schools to simply focus on teaching to the pre-established test matter. With this position the concept gets critiqued as it is simply focusing on teaching to a test rather than providing an education that teaches students critical thinking. Another disadvantage observed is that the individual needs of the students may be lost as the process is streamlined and the unique student needs are not attended.

Adult learning style is claimed by Cross (2009) to be highly dependent upon interactive learning. Too often adult training sessions are heavily focused on lecture style with upwards of two thirds of the time spent with one person as primary lecture. This is claimed to be an ineffective method to achieve productive adult learning. The emphasis with this concept is to advise that any adult training session will be most effective by maximizing every opportunity to involve, engage and encourage the students to lead and direct the training session. Cross (2009) further explains the difference between content delivery and delivering learning. It should be considered by any training program manager if the intent of a given session is to provide the content and cover material, or if the true intent is to achieve learning at that given session. A lecture style is an example of content delivery that is commonly utilized in a college setting and designed to get information to students for note taking and review later, whereas a training session may be intended to obtain all learning at that given time of delivery.

Elaborating on the concept that learning is its own reward, Kohn (1998) promotes the ideals that an effective educator guides the student to become competent at learning and when they do learn they gain pride and ownership. Therefore, the educator helps the student to become better at the process of learning. Within the public school system in the United States it is not uncommon to refer to lessons or learning objectives as “schoolwork” or “worksheets”. The focus Kohn illustrates is the synonymous relationship associated with learning and work, as work is associated with a chore or tasks that needs to get done to achieve a means to an end. Within this educational systematic layout the student views the schoolwork and objectives as a mandatory step to be able to complete an assignment or score well on a test or quiz. The completion of the assignment or test scores contribute to a class grade and grades are compiled into a grade point average. Possibly the student desires the good grades for special privileges at school or at home for having achieved the grades. On the other side, students may be ostracized for receiving poor grades or discipline may result for failing to achieve better grades. For either motivation Kohn notes that the goal of learning becomes more and more devalued. All the incentives and impacts decrease the student’s internal sense of reward for the learning itself.

Assessing teaching and learning styles, an educator may focus and identify student mistakes for the purpose of identifying and eliminating the chance that the same mistakes may occur again in the future. On a more tailored approach the mistakes may be identified to study as a means to help understand why or how the student is thinking and processing information Kohn (1998).

Planning for failure is as important as planning for success. Shuman (1998) provides several examples of success out of failed attempts in the corporate world, including Bill Gates’ failure of Microsoft Office Versions 1 and 2. The emphasis on failure planning is not primarily

focused on the fact that failures will occur but rather the organizations ability to learn from it and to continue on. Having various degrees, failures as described are the results of problems that have occurred previous and have not been adequately attended. Therefore problem solving capabilities are a measure of success and performance as potential failures may be eliminated by solving problems early.

Student grading is of course no new concept but as described by Kohn (1998) there are three rationales for grading that include, sorting, motivation and feedback. The sorting rationale conceptually groups students into categories such as excellent, average, and poor students. One critique of this concept is that a choice needs to be made as to how many students may be lumped into the excellent pile. If on one end too many students are given the excellent status it may be argued that it takes away from the elitism or prestige of the achievement. Whereas on the other spectrum the deciders of the categorization need to intentionally design and then define the bar specifically to avoid a group of students that may well be achieving excellent results by any other review.

The motivation rationale of grading is further sub-divided into intrinsic and extrinsic motivating concepts. The intrinsic motivation is described as self-motivation, as the student wants to learn and perform well for personal reasons and fosters a true desire and appreciation of learning not just for a grade or other rewards. Extrinsic motivation is understood as outside motivation to reward performance or learning. Kohn critiques the motivating rationale of grading, as the first resort and most frequently considered is often to apply extrinsic motivational tactics. The extrinsic motivation implies that the work that must be done for the purpose to achieve the desired reward rather than for learning itself, which in turn detracts from the student's internal sense and desire to learn and perform, therefore taking away from the true goal of educating and

encouraging a deeper growth. The feedback rationale of grading is believed to be very beneficial to students given the actual grading system does provide legitimate feedback. Too often grading does not provide sufficient feedback as receiving a letter or numeric grade may not adequately explain what was or was not learned. It also does not provide the student an explanation why they should want to re-learn any aspects of the material. Kohn (1998) promotes effective feedback to students provided it helps them internalize and strive to achieve higher self-standards.

The International Fire Service Accreditation Congress (IFSAC) is a widely acknowledged and accepted entity throughout the fire service nation-wide. IFSAC uses a process to certify fire service professionals that includes specific written and practical evaluation testing based on a National Fire Protection Association (NFPA) standard. The NFPA standards are largely comprised of components referred to as Job Performance Requirements. The practical evaluation portion of the IFSAC process uses skills sheets that are based off of the Job Performance Requirements from applicable NFPA standards. The IFSAC process does not cover the training requirements or methodology but proves effective as an evaluation tool for standards based performance evaluation. (IFSAC.org)

The International Fire Service Training Association's, Fire and Emergency Services Instructor Manual, lists types of analysis techniques that may be applied to a fire training program. Some of the notable analysis types include process, policy, program, need and task analysis. Each specific analysis type provides various aspects and special focus information within any sub-component of a training program. The extracted information from the analysis types may be used to enter into the next step of processing the data as outlined in progressive steps as well as help plan for application. The next suggested phase is application, whereas the

manual elaborates on techniques and considerations regarding the implementation of new or updated materials. The Evaluation process is summarized as determining the worth or values of a program and/or its components.

Divided into two categories, evaluation methodology is comprised of prospective and retrospective evaluation. Prospective evaluation is predominantly utilized when the intent is to make improvements to the process or program allowing for modification and improvements. This evaluation method requires ongoing feedback and needs to remain semi-fluid or a program in order to make the changes to achieve the desired results. Retrospective evaluation is used when the intent is to obtain the specific results and outcomes of the existing program. Retrospective evaluation technique may determine need to cause or make improvements to the program itself as a side result and may identify new program needs but the true intent is to determine program achievements looking back on its success IFSTA (2006).

Programs are defined as either internal or external programs. Internal programs directly serve and involve members of the department such as a fire training program. Whereas external programs are those that directly serve the community such as the actual emergency response or public education programs. External programs are most commonly linked with department mission statements of organizational goals. While it may be commonly understood that internal and external program symbiotically affect one another it should be noted that when evaluating a specific program the separations should be considered. When evaluating a program a manager may choose to follow a goals based, process based or an outcomes-based evaluation method. Goals based evaluations are recommended for assessing how close the program is meeting its predetermined goals. Process based evaluations are used to assess how the program is being conducted and find strengths and weaknesses. Process based evaluation is said to prove benefit

when complaints or problems are believed to exist within a program. Outcome based evaluations identify outcomes or benefits of a program's results. Outcome based evaluations may show a level of service or specific benefit to the community IFSTA (2006 p. 511-512).

In conclusion findings and observations of the literature review were helpful to detail components and philosophies of training programs as well as student learning styles. Unfortunately, the literature review process did not produce as much specific qualitative training program assessment techniques as was anticipated.

Procedures

Interview and survey methods were used as part of this research. Interviews were conducted with 59 out of 66 firefighters and fire officers of the South Bay Fire Department. South Bay Fire Department interview questions and answers compilation may be found as Appendix A. Interviews were conducted with Fire Training Officers from various Fire Departments. Fire Department training officer interview questions and answer compilation may be found as Appendix B. An online training program survey was sent to one hundred fire departments throughout the State of Washington. This constitutes approximately twenty percent of the fire departments in the state. Special focus was placed on selecting fire departments neighboring South Bay Fire, co-located in Thurston County. The remaining survey-selectees were comprised of small, medium and large sized departments representing both career and volunteer base state-wide. One limitation noted was in getting all one hundred surveys to the intended destination. Eleven email addresses were unable to be delivered when the survey invitation was sent. Twenty-One departments responded and represent this survey. Survey and response report may be found as Appendix C.

Department training officer interview and survey questions were strongly geared toward identifying training evaluation techniques and best practices as well as attempting to understand the challenges and limitations associated with trying to quantify and qualify training program performance outcome and expectations.

Results

The author's research intended to identify best practices and performance outcome measures for training programs that the South Bay Fire Department may adopt and implement. The first question asked of this research was to determine what other fire departments are doing to measure the quality of their training programs. As identified by survey and interview many fire departments conduct occasional or frequent student evaluations after training sessions, however what was discovered was that it is very infrequent that a training program has a formal process to track, document or demonstrate how the training is improving the performance of the responsive readiness of the members receiving the training. During interviews some department training officers indicated that they rely on observing the performance of their members on actual emergencies as the primary means to determine how effective the training of the program must be going. Some training officers put the heaviest value into the student's end of training critiques, as the feedback from student's having received the given sessions become the primary source of information to the training officer to determine the effectiveness of the training. Some training officers had some form of identifying and including instructor performance assessment into the overall training program effectiveness. As addressed in Appendices B and C (through interview and survey) it can be noted that some fire training officers utilize student evaluations to measure instructor performance and/or by personal observation. It was observed that some training officers indicated they informally compare firefighter response performance to the

training the firefighters received. But none had demonstrated any formal or documentable methods to prove or validate that the training directly reflected the response ability of said members.

The second question asked of this research was to identify some performance based outcome measures from the private industry that may be applied within a fire training program. The benefits of failure planning as explained by Shuman (1998) may be adopted or modified for adoption into a training program. Predicting potential failures such as achieving training goals or not meeting expected results may prove a proactive approach to problem solving. Preplanning for potential problems or failures within the training program ideally should allow the program manager to take faster action when issues arise as opposed to having to take the time to assess and evaluate the problems after they occur.

Customer satisfaction is repeatedly referenced and valued within the private industry as customers generate business, enhancing profits, therefore success. Shuman (1998). Although a fire department typically does not measure success in terms of dollars and profit, it does have a customer base. Understanding who the customer is proves crucial to any organization including a fire department. While members of the community may be the fire department's end customer, the members of the fire department are still the customers of the training officer. A fire training program may benefit in adopting some of the private industry customer service measurement tools and therefore have another performance measure. Additionally, being able to formally document the effectiveness of well-trained fire service members may also serve as a tool the department can use to demonstrate levels of customer service to the community as the ultimate customer.

The third question asked of this research was to identify any evaluation tools within the public and private education sectors. While much of the research found was designed toward school age programs there were some universal evaluation measures that proved relevant to adult style learning environments. Kahn (1998) promotes the benefits of intrinsic motivational learning and a training program weighing too heavily on scores or grades is likely to stifle the benefits and chances that students will seek knowledge for the sake of seeking knowledge. While there were no ground-breaking grading techniques identified from this research in the educational sectors, there was much to be learned about grading styles and reasons for and against the grading concept. Yong (2009) critiqued the No Child Left Behind Act as ineffective for the public school system as it promotes teaching to the test, however some conceptual aspects of the program may benefit a fire training program as an adult learning environment. By gaining consistency of the expected outcomes that a student needs to learn it streamlines the training given and tend to focus student learning to specific tasks and objectives versus widening education and covering broader overview topics. While it may be true that the concept narrows the learning focus it is also argued that what is taught is learned to a more finite degree. With a more narrowed and specific material focus, the idea is that it may help avoid some of the complexities and uncertainties associated with performance evaluation in a training program.

The fourth and summarizing question asked of this research was to identify some performance measurements that the South Bay Fire Department should consider for the fire training program? As was identified through interviews with members of the South Bay Fire Department, a majority of the member population is actively seeking career fire service employment. Regardless of career intent, most members expressed a high regard and desire to achieve a high level of training and response effectiveness. While the quest to be the best

firefighter anyone can be will always exist, the question still remains how does that get proved? Also noticed through interview, regardless of motivation, it becomes obvious that nearly all members of the department still desire to provide the best service to the community that can be achieved.

Commonly noted through literature review, outside survey and interviews, was that many organizations rely on continuous feedback from members receiving training. Unfortunately, the South Bay Fire Department has not historically been fully effective at gaining member input regarding their perception and input of the training. The department may gain valuable information by making a stronger and more dedicated attempt to seek member input regarding their opinions of the related training. The department's training program may gain and improve from including student evaluations after provided training sessions.

Upon the literature review, the International Fire Service Accreditation Congress' process was reviewed. The concept of basing a training program off of a standardized set of criteria such as NFPA standards is fundamentally the key component to obtaining IFSAC certification in the fire service world (IFSAC.org). Aside from following the detailed requirements of the IFSAC process the concept may be used based off another standard such as the South Bay Fire Department policies and procedures. One option may be to modify the concept to implement a performance measure system for the fire department's fire training program.

Also observed from department member interviews, some members failed to maintain interest in continuing the department wide drills. Results may be measured as any noted increase in member's voluntary attendance at the Monday night drills. Understanding member's concerns as well as adding value and challenge to the Monday night drills may gain a renewed interest to

the department drills and therefore tracking the number of members attending may prove to be a measure of the training program's success.

Discussion

Performance measurement has been acknowledged as the concept of determining how effectively something was achieved compared to a pre-determined expectation or standard. The first challenge the South Bay Fire Department faces in the effort to establish performance measures within the training program lies in the need to first establish the performance expectations of the members. The department needs to know what it means to be a competent responder and what a competent shift's capabilities are. Establishing reasonable and achievable yet progressive goals that meet the community's expectations of a volunteer fire department becomes the foundation of what the expectations are within the training program. Goal setting and assessing the specific community needs by comparing them to every NFPA based fire service certification requirements may prove ineffective and even diplomatic. With this dilemma lies the compatible truth that must be found with minimal argument that in order to best serve the community of the South Bay Fire District, depth of learning shall be prioritized over breadth Oki (2009). Do members of the department need to know how to proficiently operate phase 1 and phase 2 emergency high-rise elevator operations? Or would a South Bay Firefighter better serve their community combating a single family residential occupancy?

Determining the expected levels response readiness and identifying how these expectations may be quantified and/or qualified become paramount. After identifying the expected performance, comes the challenge of identifying how those expectations are measured. Unlike a corporation, a fire department cannot simply compare numbers of last quarter's

generated revenue or stock market share-value. A fire department needs to study, identify and adopt what success is and how they know if they are successful. In this discussion, more specifically, the South Bay Fire Department needs to determine what success looks like within its training program. It is an easier statement to declare that the South Bay Fire Department is committed to excellent service and emergency readiness than it is to identify and live by specific outcome or performance expectations that may be held into account. However, without them it is also impossible to demonstrate and prove that the department is providing proper services to the community. Finally, it proves challenging to identify improvement areas or make changes based on any solid evidence or data that helps to make informed decisions.

Identified in the International Fire Service Accreditation Congress (IFSAC) certification process there must be a practical skills testing portion, based on a specific set of NFPA standards a student must adequately pass to receive a specific fire service related certification. The concept is that the pre-established skills sheets used are based on the knowledge, skills and abilities expected of the candidates. The skills sheets provide an itemized list of task-level steps of what must be demonstrated in order prove successful accomplishment of the given standard. In order for a candidate to received IFSAC certification, all IFSAC's rules and processes shall be followed and all skills sheets used shall have been approved by an IFSAC review committee. If certification by an outside entity like IFSAC is not the goal then all the rules and processes are not required per IFSAC (2011). The concept of being evaluated based on skills sheets may still prove valid even if the adopted standard changes. If not an NFPA standard, it is still sound that the adopted standard may be a departmental policy or procedure. A department may use a familiar firefighter skills sheet template to build department specific task steps to achieve expected goals. These modified skills sheets may be used to measure student comprehension and

to evaluate to what extent members properly execute the specific department expectations. It would be crucial that the objectives within these evaluation tools be clear and accurate to what the desired results are and most importantly that these expectations are directly related to what members of the South Bay Fire Department will be expected to achieve. Being able to consistently evaluate such expectations and also being able to reproduce the same evaluation criteria may prove invaluable as a progressive tool. A given member or given shift may be given standardized performance tests to achieve and understand a baseline set of competence and skills. As the training program is implemented these skills performance tests may be continuously utilized. Assuming the department can isolate external influences and variables it may be possible to attribute the achieved training to any observed improvements of the pre-established baseline tests. If performance is not improved after training is implemented it may also prove an effective means to evaluate how effective the various training methods and subjects are. Improvement areas may be identified and training curriculum may be modified until the pre-established expectations have been met. The end goals should be to always improve the knowledge, skills and abilities of our members in order to strive for the best and to improve services provided to the community.

Recommendations

The first recommendation the author has for the South Bay Fire Department is to identify and agree on emergency response competency priorities. While it may be obvious that any type of emergency may occur at any time and that fire service members need to be ready to react to most any given scenario, there are still means to determine district response priority. The South Bay Fire Department - Thurston District 8 predominantly serves a rural community without

many unique or special hazards. The community members within the District limits are the end using customer, and their needs should be put on first focus. Considering the depth of learning versus breadth of learning dilemma as noted by Oki (2009) it is recommended by the author that the depth of learning concept be prioritized for the department's training program as it is believed it will best serve our members to achieve department specific expectations. Using response statistics, other existing data as well as understanding the district demographics and community needs, the South Bay Fire Department Executive Management should be able identify what the response proficiency priorities are. Some examples may likely include initial report of fire response and set-up of a single family residence, medical response or motor vehicle collision. After this list of primary core competencies are identified the department's policies and standard operating procedures need to be reviewed to confirm they are current, they include all needs, and they adequately detail the expected performance and appropriate practices for such responses. In order to determine success and performance there must be adopted and measurable goals. Demonstrating the department is capable of these goals in the form of emergency response readiness may prove measurable. The training officer would then be tasked with ensuring that department skills sheets are developed based off those policies and procedures as the standard. These sheets would serve as the tools that can be used to measure to what level of efficiency department members or shifts can perform to the expected standards. Using these skills sheets as an ongoing practice will allow the training officer to monitor the members and shifts response capability. This performance measurement tool would also help the training officer determine how effective various components of the training program are. After the specific training session is completed the members or shifts would be evaluated with the same assessment tool that was conducted prior to the training. The results of the evaluations compared from before and after

receiving the training may serve as an overall training program performance measurement tool. Success for the program will be measured both quantitatively and qualitatively. The quantitative is easily measured in terms of tracking and ensuring that all members receive the required training. The qualitative would be measured in terms as to what extent members are able to achieve the expected performance skills established within the updated department policy. This information may additionally prove relevant in the future for the department as criteria within a feedback or member performance evaluation tool.

The second recommendation the author has for the South Bay Fire Department is to develop, adopt and implement a three-tiered training program evaluation approach. Tier one will be the evaluation process as described in the author's first recommendation that includes the evaluation of training competence of the line level responders of the department. This level of the program will be supervised by the training officer. Tier two will be the evaluation of the instructors providing the department training. This tier will need to be developed by the training officer and should evaluate the effectiveness of the instructors. This process should evaluate instructor's ability to provide beneficial training to the students in order for them to maximize their success in achieving the department's core expectations. A portion of this evaluation process should be based on how well and accurately the instructor followed the department's adopted lesson plan for the given subject. Instructors would be given feedback to help them improve as well as enforce and encourage their existing strengths. The main goal of this tier is to encourage, support, and train the shift captains to understand and embrace their true potential to delegate training objectives to the members of the shift. Based on the interviews the training officer conducted with the captains of the shifts, it was discovered that most captains took the full training responsibility on themselves and therefore felt the full responsibility to conduct the

training personally. The goal of this tier is to encourage captains to recognize more experienced members on their shift that will not only gain experience as trainers but will help the rest of the shift learn from the training they may conduct. This goal will not only allow for learning of the newer members receiving the training but it will provide experience for those senior members giving the training. The shift officers delegating the training courses will not only be taking the full training responsibility off their plate but they will in turn also be gaining delegation experience which will make them stronger managers and will aid them in the future to become future senior leaders and potential Battalion Chiefs. It should also be expected of the Captains that if/when they discover someone on their shift, who may possess advanced knowledge, special interests or superior training skills they should bring these members forward to be recognized by the Training Officer. These talented members may provide training to other shifts or may share best practices that can positively impact the department's overarching training program. This tier will be managed by the training officer. And finally, tier three will consist of the overall training program outcomes. This tier will require the training officer to continue perspective evaluation of the program as an ongoing basis. It shall be the training officer's responsibility to identify problems associated with the training program as well as demonstrate how problems are being overcome. The Training Officer should have and continue to follow a vision for the training program that ensures core competencies are mastered within all department shifts and that ongoing training is stimulating and beneficial to members of the department. The response competence levels and satisfaction levels of all members should be measurable and the assessment of the training program should be continuously monitored. The ongoing assessment should include a comparison study between member satisfaction/moral and response performance. The Training Officer shall be responsible to develop this process and compile

quarterly reports which include status of tiers one and two. This process shall be accepted and approved by the Fire Chief and may be used as an evaluation tool partially indicating the Training Officer's level of success.

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Appendix A

(South Bay Member training interview questions)



SOUTH BAY FIRE DIST 8

TRAINING AC INTERVIEW

Name/title _____ Shift _____ Interview Date _____

1. When did you join the team and why?

2. What are your Short and Long term goals?

Short _FFI, FFII, EMT, Inst I,

Long

3. What are the training needs of the department?

4. What/which descriptions are most accurate for you as to why you are a volunteer at SBF8?

- a. Gain experience/training as actively trying to get hired onto a career Dept _____
- b. To help and be involved in the community _____
- c. Love the Fire Department but not interested in hiring into a career Dept. _____
- d. Other? _____

5. Are you interested in department promotion here- i.e. ODP?

6. What statement is most accurate

- a. I like being on my current shift and am not willing/wanting to move to another _____

- b. I like being on my current shift but am willing to rotate around to another shift
 - c. I'm willing to and/or may enjoy working on a new shift sometime _____
 - d. Other? _____
-

7. Anything else?

(South Bay Member training interview results summary – 59 of 66 members interviewed)

Name/title _____ Shift _____ Interview Date _____

1. When did you join the team and why?

Survey results showed

- 24 members joined South Bay less than 2 years ago (since 2009) = 41% Less than 2 years
- 21 members joined South Bay less than 5 years ago but more than 2 years ago (Between 2006-2009) = 35% Less than 5 years
- 14 members joined South Bay 5 or more years ago (before 2006) = 24% 5 or more years

Reasons for joining varied, but frequently indicating desire to help people, interest in a fire service career and word of mouth recommendations from current members.

2. What are your Short and Long term goals?

Various responses were not statistically categorized as part of this summary compilation.

3. What are the training needs of the department?

This open-ended question resulted in a multitude of responses however the training delivery method preference was compiled as follows.

11 of 59 members indicate they would prefer department training be delivered on their shift = 19%

9 of 59 members indicate they would prefer training be delivered as department-wide drills = 15%

30 of 59 members indicate they would prefer training be delivered department-wide and shift = 51%

9 of 59 members uncertain or did not remark towards preference regarding shift or department delivery methods = 15%

Note: It should be clarified that during this interview question, the interviewer followed up with members by specifically asking how they saw the best training delivery method. The question was asked -Did they prefer shift based training or department-wide drills such as "Monday night Department Drill?"

Note: While no specific numbers were documented or counted as result of this interview, some senior members (five plus years with department) indicated that they stopped attending the "Monday Night Drills" because the drills were too routine and lacked any stimulating qualities as nothing new was learned and there was no challenge to them.

4. What/which descriptions are most accurate for you as to why you are a volunteer at SBFD?
- Gain experience/training as actively trying to get hired onto a career Dept _____
 - To help and be involved in the community _____
 - Love the Fire Department but not interested in hiring into a career Dept.
 - Other? _____

Survey Results showed

-31 members selected "a." primary intent to hire into career department = 53% Trying to hire career

-21 members selected "b." primary intent to help and be involved in community = 36% Help community

-6 members selected "c." primary intent for fire department but not interest in career fire = 10% Fire department non-career

-1 member selected "d." other intent Loves helping other fire service members = 1%

5. Are you interested in department promotion here- i.e. ODP?

Survey Results showed

-40 Members indicate "Yes" interest in Officer Development Program = 68% Yes

-19 Members indicate "No" interest in Officer Development Program = 32% No

(Note: It should be clarified that not all members indicating “Yes” said they were ready at that point, but many indicated a future interest)

6. What statement is most accurate
- a. I like being on my current shift and am not willing/wanting to move to another
 - b. I like being on my current shift but am willing to rotate around to another shift
 - c. I’m willing to and/or may enjoy working on an new shift sometime
 - d. Other?

-26 members selected “a.” = 44%

-31 members selected “b.” = 53%

-2 members selected “c.” = 3%

-0 Members selected “d.” = 0%

(Note: For accuracy and comprehensive data purposes it should be clarified that when asking this interview question it was explained that the intent of this question was to determine if the members saw more benefit from a training perspective to move around to other shifts and learn from them or if they found more value training with their own shift. It was further explained that the intent of the question was not to ask if they were happy on their shift or if they simply wanted to move to another shift for other reasons.)

7. Anything else?

Various responses were not categorized as part of this summary compilation.

Appendix B

(Fire training officer interview questions)

TRAINING PROGRAM PERFORMANCE

TRAINING OFFICER INTERVIEW

Name/title _____ Department _____ Interview Date _____

1. Do you have a means to measure student learning after training? Please elaborate.

2. Do you have a means to measure instructor effectiveness? Please elaborate.

3. Do you have a means to measure effectiveness of the training program? Please elaborate.

4. How do you track and ensure state required training occurs? Do you compare your program to the state's fire training and safety standard -WAC 296-305?

5. Do you provide instructors with specific pre-established directives or lesson plans? Giving them the objectives and tasks vs. giving them a topic to teach as/at their discretion and include their own task priority.

6. Anything else?

(Fire training officer interview answer summary)

Name/title _____ Department _____ Interview Date _____

Four Thurston County Fire Department Training Officers were interviewed.

Deputy Chief Steve Slater, Bald Hills Fire Department, interviewed by phone 20 June 2011

Assistant Chief Ted Hendershot, McLane-Blacklake Fire Department, interviewed by phone 21 June 2011

Lieutenant Derek Hall, North Olympia Fire Department, interviewed in person 22 June 2011

Battalion Chief Andrew Schaffran, East Olympia Fire Department, interviewed by phone 24 June 2011

1. Do you have a means to measure student learning after training? Please elaborate.

2 of 4 Training Officers use State Fire Marshal's Officer/NFPA based Skills sheets to evaluate students.

2 of 4 Training Officers use direct observation to evaluate students.

2 of 4 Training Officers use written student evaluations (evaluation that the students complete after they receive training) to assess student learning.

1 Training Officer uses informal drill debriefing sessions to evaluate student learning.

2. Do you have a means to measure instructor effectiveness? Please elaborate.

2 of 4 Training Officers indicate No, they do not measure instructor effectiveness

2 of 4 Training Officers indicate Yes, both using combinations of student critiques and Training Officer observation.

3. Do you have a means to measure effectiveness of the training program? Please elaborate.

2 of 4 Training Officers indicate No, they have no measure to evaluate the overall effectiveness of the training program.

1 Training Officer explained that he measures his training program's success based on how many of his recruits complete the entry level training program.

1 Training Officer explained that he measures his training program's success informally based on subjective observation of how well the students perform during the training sessions.

4. How do you track and ensure state required training occurs? Do you compare your program to the state's fire training and safety standard -WAC 296-305?

3 of 4 Training Officers indicate that they do use and follow the State requirements for fire training.

1 Training Officer indicate that he does not use and the State requirements for fire training but instead uses the NFPA 1001 standard for firefighter and state skills sheets for training planning and scheduling.

5. Do you provide instructors with specific pre-established directives or lesson plans? Giving them the objectives and tasks vs. giving them a topic to teach as/at their discretion and include their own task priority.

2 of 4 Training Officers indicate that they do not have or provide instructors with specified lessons plans prior to assigning them to instruct a session.

1 Training Officer indicated that he occasionally provides instructors with specified lessons plans depending on the subject and experience of the instructor.

1 Training Officer indicated that he meets with the instructor and discusses the expectations prior to assigning them to instruct a session.

6. Anything else?

One Training Officer explained that he believes we as training officers need to put more focus on engaging students and encourage more self critical thinking in order to make more effective firefighters.

Appendix C

Training evaluation survey to fire officers

(Emailed survey invitation)

Hello,

My name is Brandon LeMay and I am an Assistant Chief/Training Officer at the South Bay Fire Department (Thurston Dist 8) in Olympia, WA. I am in the National Fire Academy's, Executive Fire Officer Program. I am currently working on my second year Applied Research Project, focused on fire training program evaluation. As part of my research I have created a short (*No kidding – only 10 multiple choice*) survey. This survey is designed to target Fire Department Training Officers, in an attempt to understand what (or to what extent, if any) departments are doing to try and determine how effective their training program is.

If you are your department's training officer, please take 5 minutes to complete this survey. If you are not the Department Training officer please forward this email to your Training Officer or whomever is responsible for the training of your department. If you as the Training Officer receive forwards of this email in duplicate I apologize, please disregard, as I only need one survey per Department.

To take this survey please click this link.

<http://www.surveymonkey.com/s/QRJCMCT>

Note: Departments for this survey were selected with heavy inclusion of Thurston County Fire Departments and randomly selected Departments Washington-State-wide. The 2010 Washington State Fire Service Directory was used for contact information, with special efforts to try to include small, medium and large sized fire departments. If you are interested in results of this survey, feel free to request that from me after/around Mid July. As you will notice I do not ask for department names in effort to encourage honesty and that sharing the resulting information will not be an issue.

Thank you so much for your time and help!

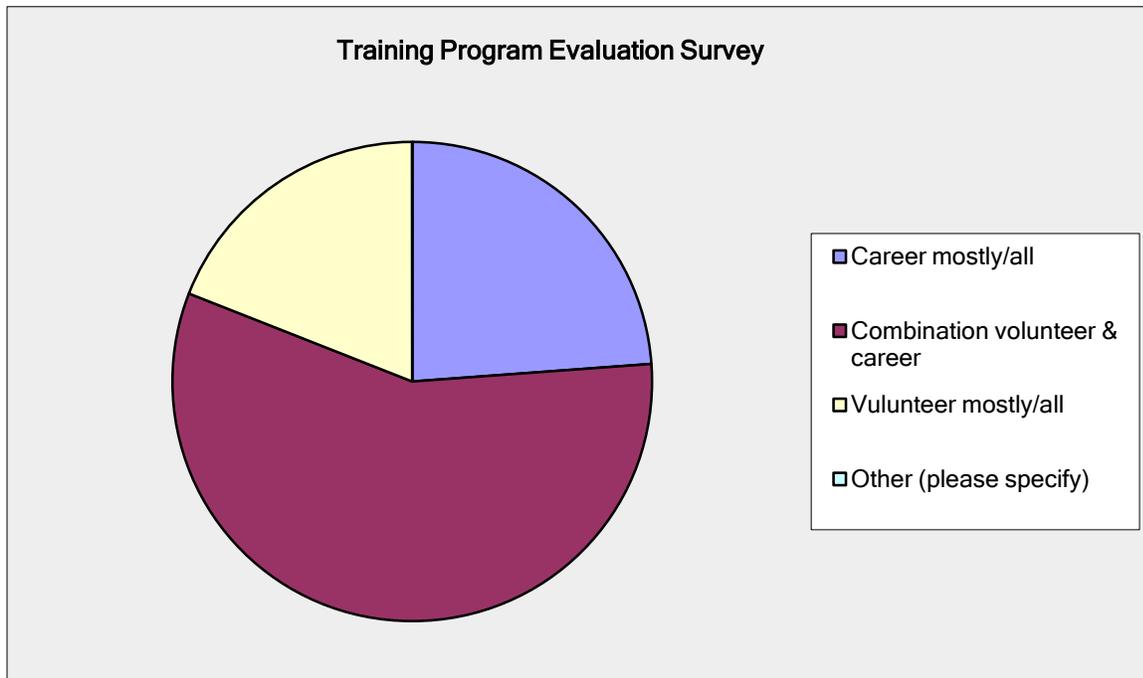


Brandon H. LeMay
Assistant Chief – Training & Safety
South Bay Fire Dist. 8
Phone 360-491-5320 Fax 360-438-0523

Training Program Evaluation Survey

Survey Question #1

What best describes your fire department or organization		
Answer Options	Response Percent	Response Count
Career mostly/all	23.8%	5
Combination volunteer & career	57.1%	12
Volunteer mostly/all	19.0%	4
Other (please specify)	0.0%	0
<i>answered question</i>		21
<i>skipped question</i>		0

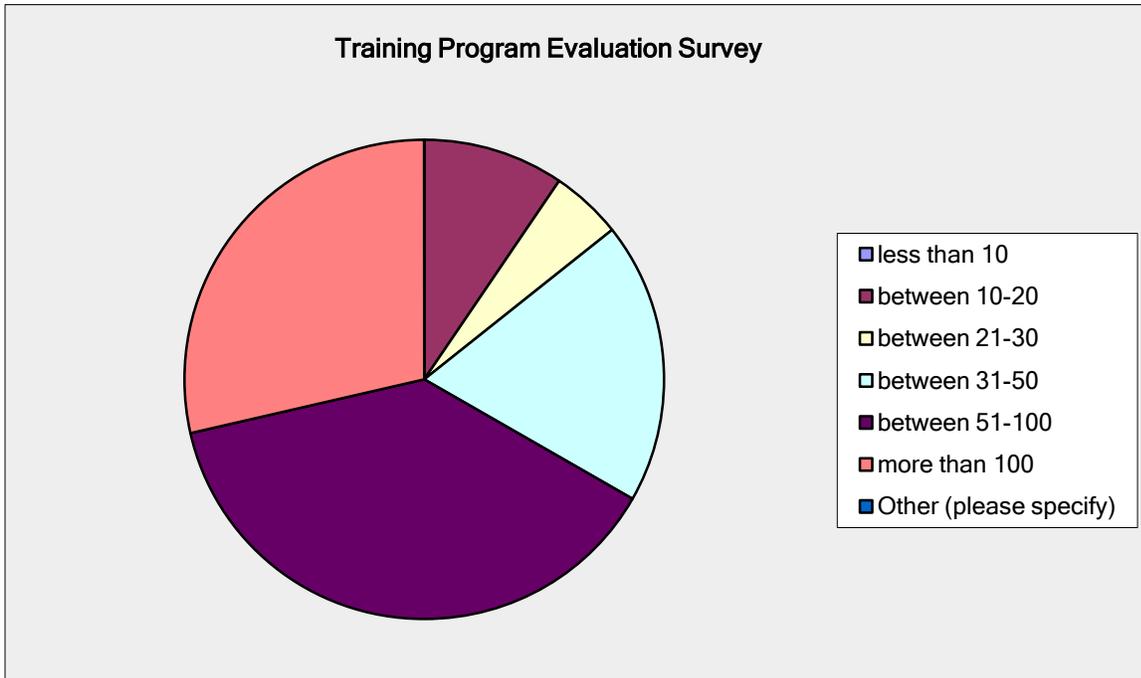


Training Program Evaluation Survey

Survey Question #2

How many operational members do you have in your department or organization?		
Answer Options	Response Percent	Response Count
less than 10	0.0%	0
between 10-20	9.5%	2
between 21-30	4.8%	1
between 31-50	19.0%	4
between 51-100	38.1%	8
more than 100	28.6%	6
Other (please specify)	0.0%	0

<i>answered question</i>	21
<i>skipped question</i>	0



**Training Program Evaluation Survey
Survey Question #3**

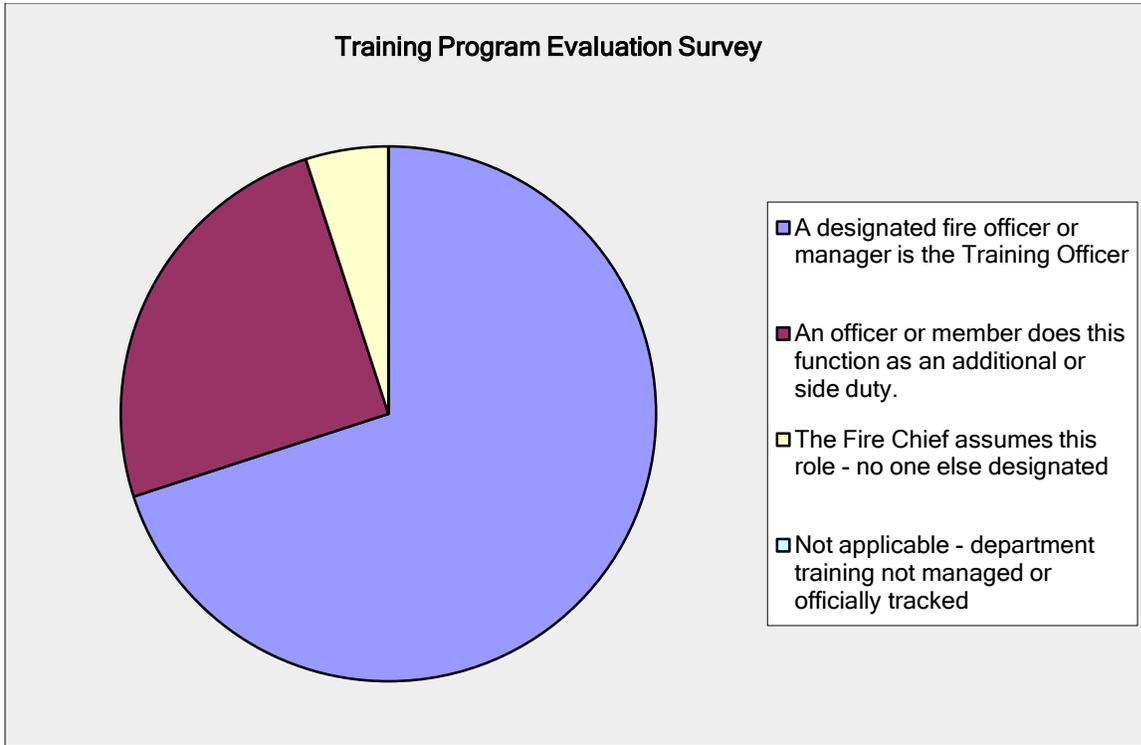
Please select the below option that most accurately describes who manages your department's training program.

Answer Options	Response Percent	Response Count
A designated fire officer or manager is the Training Officer	70.0%	14
An officer or member does this function as an additional or side duty.	25.0%	5
The Fire Chief assumes this role - no one else designated	5.0%	1
Not applicable - department training not managed or officially tracked	0.0%	0
Other (please specify)		1
<i>answered question</i>		20
<i>skipped question</i>		1

Number	Response Date	Other (please specify)	Categories
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Individual Written responses

1. Currently all the officers are working together as my current job is keeping me away from home all week. I work on make-up training on Saturdays.



**Training Program Evaluation Survey
Survey Question #4**

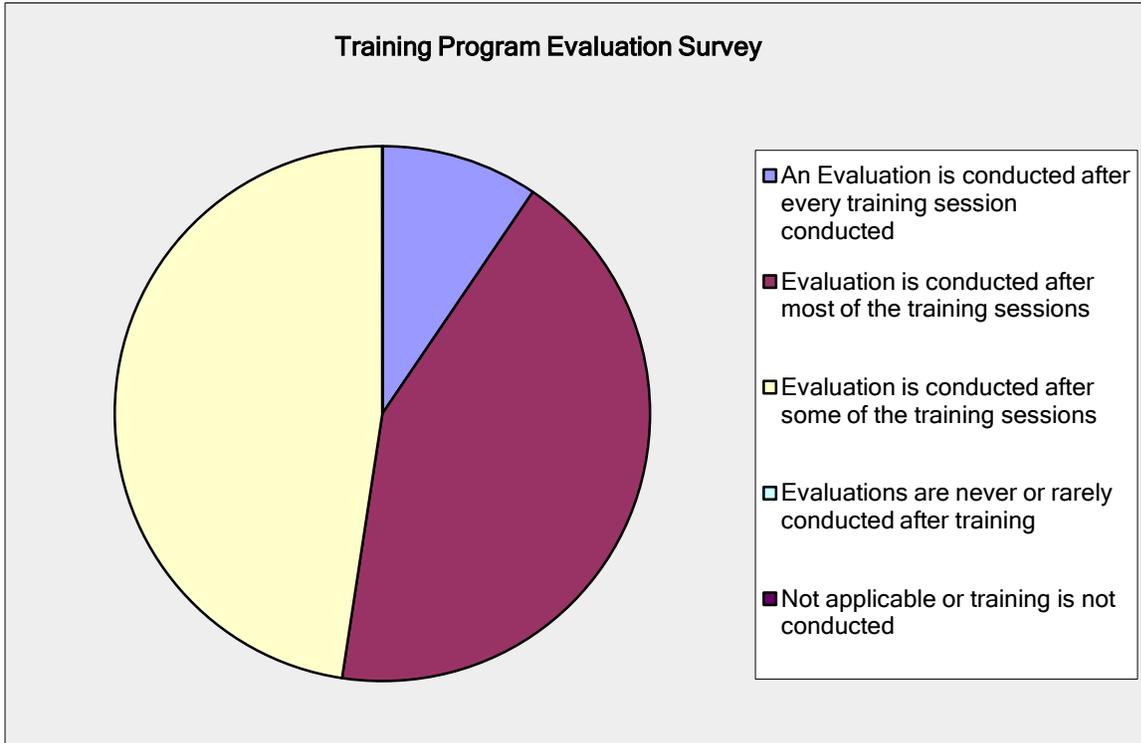
How often do you evaluate student learning after each training session? (conducting some type of practical, cognitive or written testing assesment after the training)

Answer Options	Response Percent	Response Count
An Evaluation is conducted after every training session conducted	9.5%	2
Evaluation is conducted after most of the training sessions	42.9%	9
Evaluation is conducted after some of the training sessions	47.6%	10
Evaluations are never or rarely conducted after training	0.0%	0
Not applicable or training is not conducted	0.0%	0
Other (please specify)		2
<i>answered question</i>		21
<i>skipped question</i>		0

Number	Response Date	Other (please specify)	Categories
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Individual Written responses

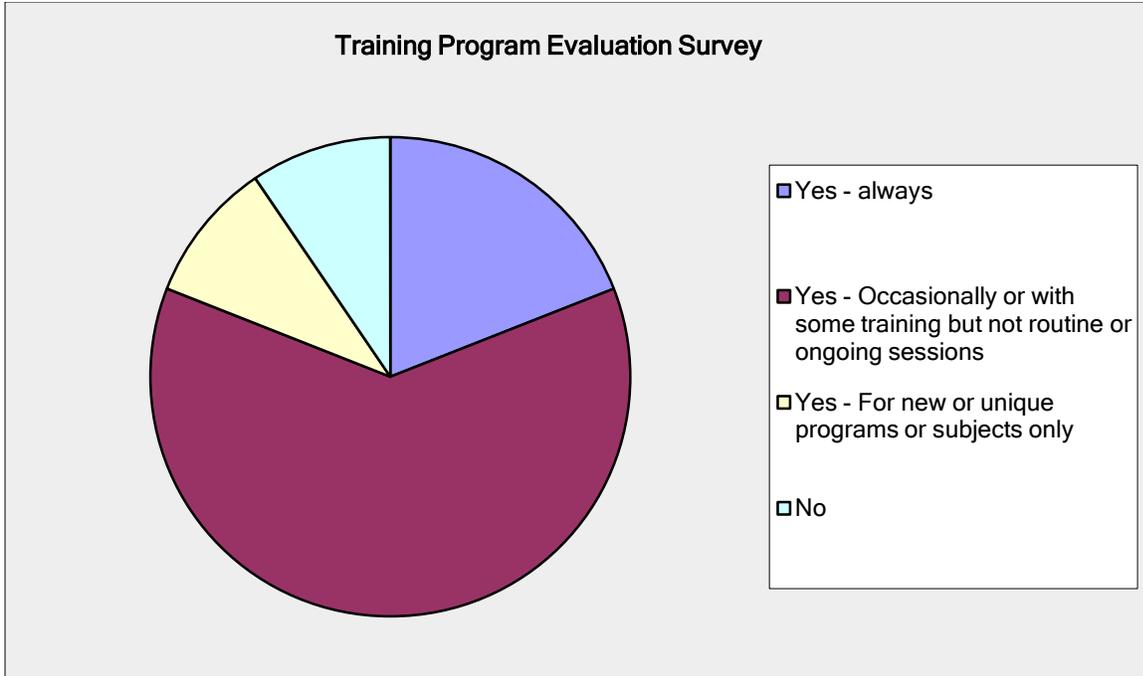
1. In addition to evaluating performance during and after a training session we attempt to conduct quarterly evaluations. Some sessions are evaluated most are not.
2. We do have an annual evaluation process that tries to encompass the training that took place over the year.



**Training Program Evaluation Survey
Survey Question #5**

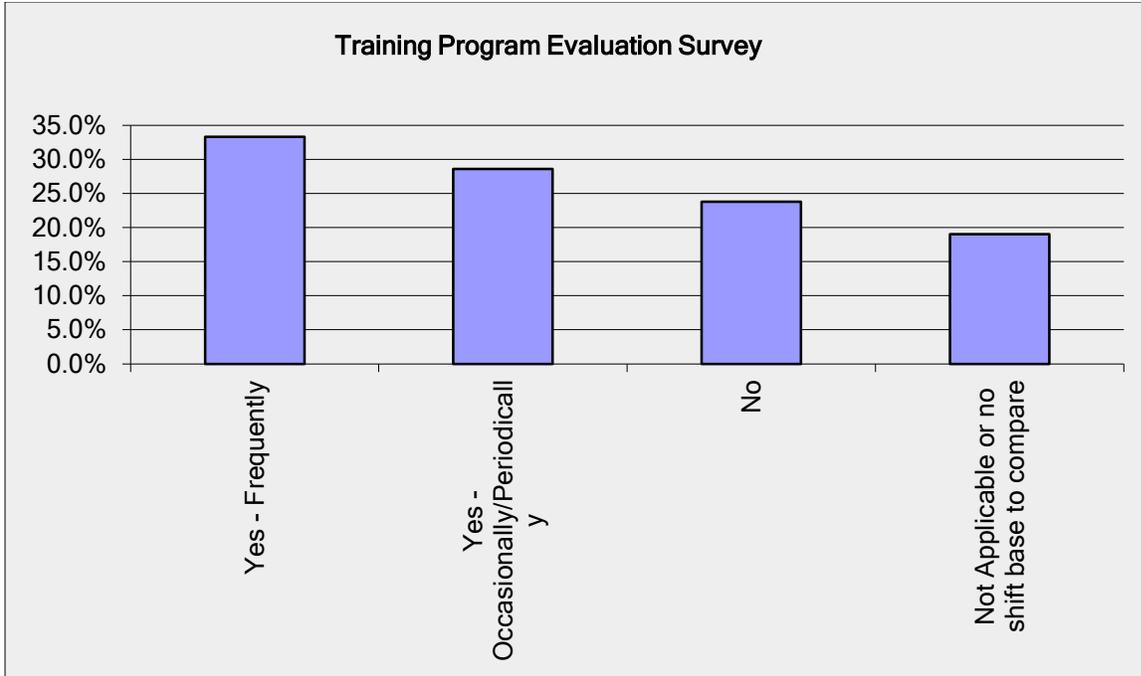
Does your department seek student critiques or training evaluations after training sessions? (Do you seek feedback from students after they receive a training session?)

Answer Options	Response Percent	Response Count
Yes - always	19.0%	4
Yes - Occasionally or with some training but not routine or ongoing sessions	61.9%	13
Yes - For new or unique programs or subjects only	9.5%	2
No	9.5%	2
<i>answered question</i>		21
<i>skipped question</i>		0



**Training Program Evaluation Survey
Survey Question #6**

Do you compare training effectiveness between shifts?		
Answer Options	Response Percent	Response Count
Yes - Frequently	33.3%	7
Yes - Occasionally/Periodically	28.6%	6
No	23.8%	5
Not Applicable or no shift base to compare	19.0%	4
Other (please specify)		0
<i>answered question</i>		21
<i>skipped question</i>		0



**Training Program Evaluation Survey
Survey Question #7**

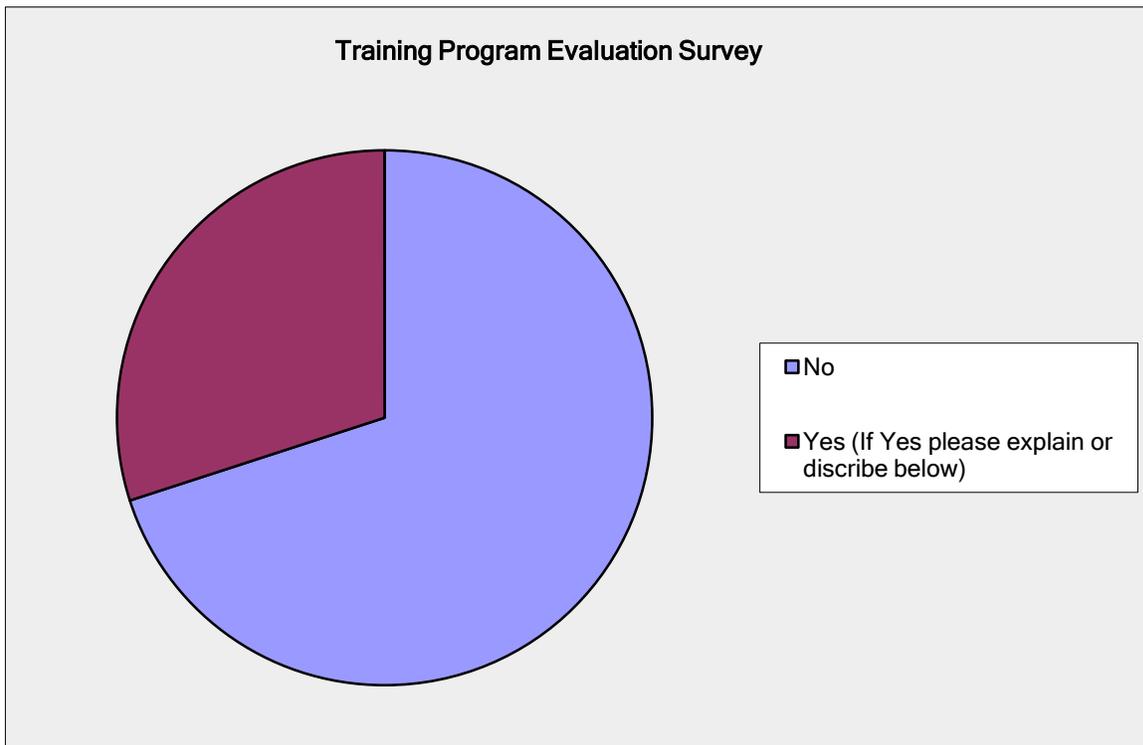
Does your department have a means to compare or attribute operational response readiness levels to the department training?

Answer Options	Response Percent	Response Count
No	70.0%	14
Yes (If Yes please explain or describe below)	30.0%	6
Other (please specify)		5
<i>answered question</i>		20
<i>skipped question</i>		1

Individual Written responses

1. I am currently incorporating team and multi-company performance evaluations into our training manual consistent with NFPA 1410. The evaluations are adapted from NFPA 1410 to be applicable to this county's staffing configurations.
2. Conduct Quarterly Evaluations
We have timed training evolutions
We have out the door and response time standards, (goals)
If on scene performance is sub standard we determine if the training program needs to be updated or if additional training is required.
3. Yes,
evolutions
are time
based

4. No may arrive on scene without being trained. As more folks have become trained our response times have decreased due to the availability of trained responders.
5. If I understand this question correctly the answer is yes, we conduct post incident analysis on incidents and determine what training was lacking or needed and develop training to correct the deficiencies. The training division at incidents is always evaluating the crews to see operationally what is working and what corrections are needed. The last method used is pre incident planning to develop training.



**Training Program Evaluation Survey
Survey Question #8**

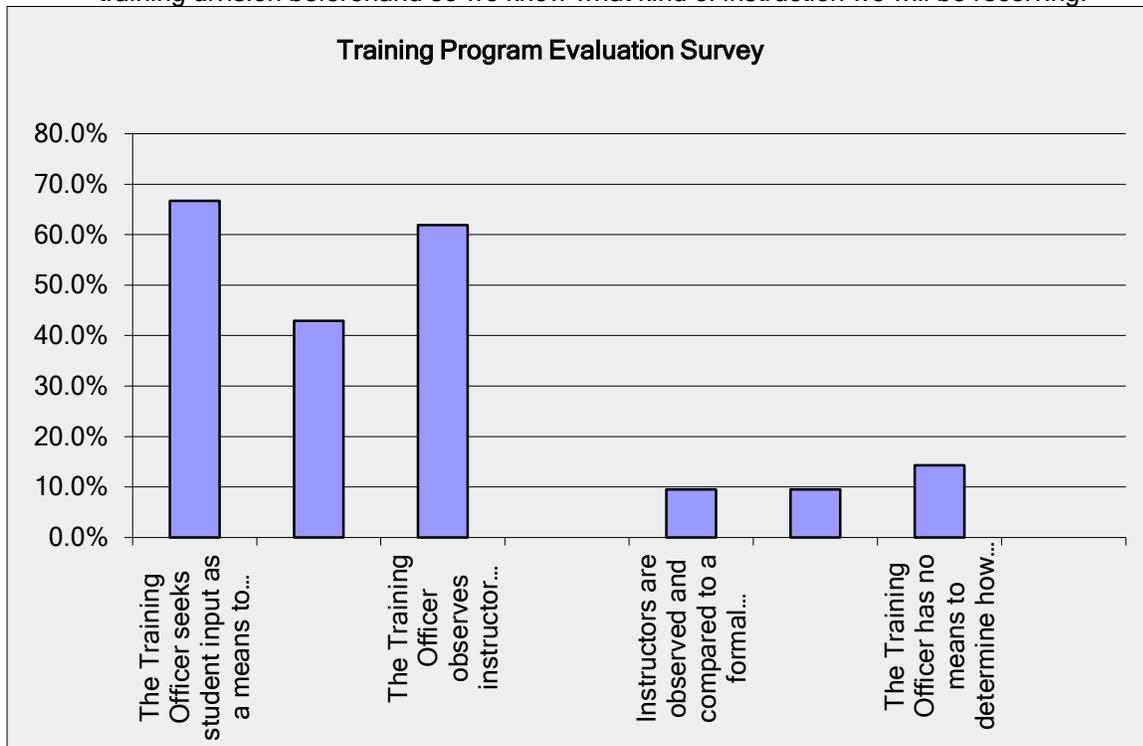
Regarding or evaluating instructor effectiveness, what statement is most accurate for your department? Check all that apply.

Answer Options	Response Percent	Response Count
The Training Officer seeks student input as a means to help assess instructor effectiveness	66.7%	14
The Training Officer has a means to evaluate student performance after receiving training from	42.9%	9

specified instructors that is used to evaluate instructor performance.		
The Training Officer observes instructor training sessions to evaluate instructor performance.	61.9%	13
Department has an instructor to instructor peer review system that is used to evaluate instructor performance.	0.0%	0
Instructors are observed and compared to a formal standard (i.e. written lesson plan, skills sheet, NFPA section, etc) to evaluate performance	9.5%	2
The Department Training Officer is the only trainer (Instructor evaluation tool system not applicable)	9.5%	2
The Training Officer has no means to determine how effective instructors are conducting training	14.3%	3
NA or other answer - please provide below	0.0%	0
Other (please specify)		1
answered question		21
skipped question		0

Individual Written responses

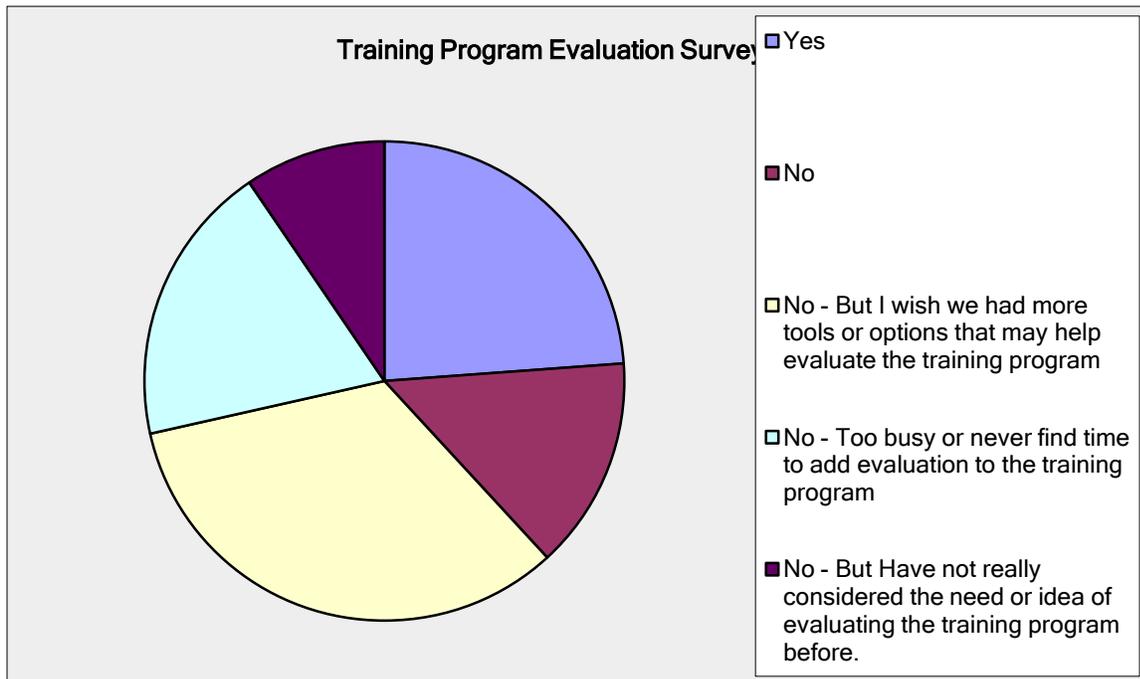
1. This is done on a case by case basis. Most outside instruction is attended by someone in the training division beforehand so we know what kind of instruction we will be receiving.



**Training Program Evaluation Survey
Survey Question #9**

Are you satisfied with your department's ability to evaluate it's training program?

Answer Options	Response Percent	Response Count
Yes	23.8%	5
No	14.3%	3
No - But I wish we had more tools or options that may help evaluate the training program	33.3%	7
No - Too busy or never find time to add evaluation to the training program	19.0%	4
No - But Have not really considered the need or idea of evaluating the training program before.	9.5%	2
<i>answered question</i>		21
<i>skipped question</i>		0



**Training Program Evaluation Survey
Survey Question #10**

Thank you for taking this survey! If you have any other comments or related information please feel free to comment below.

Answer Options	Response Count
	4
<i>answered question</i>	4
<i>skipped question</i>	17

Individual Written responses

1. Good luck in your EFO program!
2. Time and money are the enemy. If we had more time and finances we could dedicate more time to training and evaluation.

3. As far as evaluating the effectiveness of the training program I depend a lot upon the feedback I get from The Company Officers that deliver 99% of the on-going training our personnel receive. We do solicit feedback from participants when we deliver specialized training or seminars to our personnel.
4. For answer 9 I feel we are able to evaluate or training, but I will always look for ways to improve our delivery methods and evaluations of training.