

DETAILED INSTRUCTIONAL PLAN

Descriptive Title for the Project

How to Brief Failed Inspections

Course Information

Performance Gap(s)

	Target Population	Performance	Standard
Desired Performance	We want our USCG Marine Inspectors	to brief ship captains	<p>confidently</p> <ul style="list-style-type: none"> •with an estimated reduction in appeals of 50%. •with an estimated reduction in avoidable appeals costs of \$12,000 per year.
Actual Performance	Marine Inspectors are	<ul style="list-style-type: none"> • writing deficiencies on form CG-835 and shutting down unsafe vessel operations • issuing the CG-835 to the vessel captains 	<p>without giving the ship captains full explanations about the regulatory violations.</p> <p>without explaining how the vessel conditions are endangering lives and navigable waterways, leading to an average of 5 appeals per year, costing the unit an average of \$24,000 per year in labor hours.</p>

Strategic Business Objectives

USCG Marine Safety Mission Statement:

The Coast Guard Maritime Prevention Program prevents personnel casualties and property losses, minimizes security risks, and protects the marine environment. The Coast Guard develops and enforces federal marine safety, security, and environmental regulations. It reviews

and approves vessel and maritime facility security plans, conducts security and safety inspections, and enforces Transportation Worker Identification Credential regulations. The program conducts domestic and international port security assessments, analyzes maritime security risk nationwide to identify high risk targets and support risk reduction measures and also supports administration of port security grant funding. The program periodically reviews the effectiveness of anti-terrorism measures in foreign ports by conducting assessments of those ports to determine compliance with the International Maritime Organization (IMO) International Ship and Port Facility Security (ISPS) Code, and requires vessels arriving in the United States from ports with inadequate antiterrorism measures to take additional security precautions. The Coast Guard develops and applies design, construction and equipment standards for vessels; conducts compulsory, as well as voluntary vessel exams and inspections; certifies and licenses U.S. mariners; and promotes best practices by investigating marine casualties and sharing its findings. It provides grants to States to improve recreational boating safety, and supports a variety of government and nongovernment boating safety efforts in partnership with other federal agencies, state and local governments, marine industries and associations. The Coast Guard also maintains strong leadership roles in many international maritime organizations. (U.S. Coast Guard, N.D., p.1)

About the Client

Marine Safety Unit (MSU) Pittsburgh is a subunit of the USCG and is responsible for all things related to marine safety on the navigable waterways of the Tri-State area of Pennsylvania, Ohio, and West Virginia. This includes vessel/facility inspections, investigations, pollution investigations, and waterways management. The unit is responsible for the safety and security of over 300 miles of rivers.

On average, MSU Pittsburgh Marine Inspectors conduct 100 inspections per year, with an average time of three hours per inspection. Because this area of responsibility is dispersed across 300 river miles, inspectors log an average of 2 hours' drive time per inspection, which totals five man-hours per inspection. This is a total of 500 work hours per year on inspections (100 inspections x (3 hrs +2 hours) = 500 hours)

Why Closing the Performance Gap is Important to the USCG

In the last several years MSU Pittsburgh alone received an average of four appeals per year from vessel operators about their failed inspections/major deficiencies. It took an average of 100-man hours per appeal to review, process and route appeals at MSU Pittsburgh, about 400 hours annually. An appeal from the industry generates an extremely costly and time-consuming process. When an appeal is filed, it is not uncommon for an inspector's decision to be overturned by the local Captain of the Port and sometimes elevated all the way up to the Headquarters level. There are countless factors that will determine if the appeal will be upheld or overturned. The higher the appeal goes, the more costly and time consuming the process will be.

It is difficult to calculate a service member's salary on an hourly basis because service members earn a set monthly salary. It is not uncommon that a military member will work more than 40 hours per week. However, for the purpose of this calculation it is assumed that they work an average of 40 hours per week. we calculate the average hourly salary of MSU Pittsburgh personnel involved in the appeals process to be \$61 per hour.

Rank Hourly salary

Commander	\$72 per hour
Chief Warrant Officer	\$59 per hour
Lieutenant	\$53 per hour

At an average of \$61 per hour, MSU Pittsburgh is spending \$24,400 on appeals per year and a much smaller unit compared to the rest of the Coast Guard, which would have much larger averages of appeals. (For this ID project we will only focus on MSU Pittsburgh's gap).

If Coast Guard personnel could reduce the 400 hours a year reviewing and processing appeals, they could spend more time focusing on the primary missions as stated in the Marine Safety Mission Statement above. In addition, the Coast Guard's budget has been cut in the last several years, meaning less funding for operational equipment. Addressing this gap can potentially reduce the number of appeals by 50%, which in turn will save the Coast Guard an average of \$12,200 per year. Focusing more time and money on the marine safety mission would be a critical success within the Coast Guard's Strategic Objectives.

Mode of Delivery

Delivery Mode	Rationale
<input type="checkbox"/> Instructor-led training. Specifically: <ul style="list-style-type: none"> <input type="checkbox"/> Traditional classroom <input type="checkbox"/> Role-playing scenarios 	<p>The traditional classroom approach, with a focus on role-playing, is the most beneficial strategy for this group of learners. There is nothing technical or predictable about the skills. It is about personal interaction, which is best taught and practiced in a face-to-face setting. It is also not a common occurrence for Marine Inspectors to be faced with angry ship captains, so the workplace opportunities to build these skills are very limited. Additionally, the small number of inspectors who need this training would not justify the time and cost to create, implement, and maintain eLearning.</p> <p>Learners will first have the opportunity to share stories from personal experience about delivering bad news, even if not specifically related to briefing a failed inspection. Then, instructors will also share videos of what to do and what not to do when briefing a failed inspection. They can bring to life the emotion they were faced with when confronted by an angry ship captain. They will capture the learner's attention with these stories, and will then present the material to manage these types of situations.</p> <p>Once the learners have been presented with the steps for communicating to a captain that the vessel has failed inspection, they will then have an opportunity to manage the reaction through role-playing scenarios.</p>

Sequencing of Objectives

#	Performance (include TA #)	Conditions on the job	Criteria on the job
3	Inspectors will brief ship captains	<p><u>Cues</u></p> <ul style="list-style-type: none"> ● Given a substandard vessel ● Given a failed vessel inspection ● Given an emotional captain <ul style="list-style-type: none"> ○ Irrate ○ Confused ○ Scared ● Captain waiting to hear why the vessel failed inspection <p><u>Resources</u></p> <ul style="list-style-type: none"> ● Given the code of federal regulations ● Given the 840 handbook (job aid) <ul style="list-style-type: none"> ○ which works as a checklist ○ references all of the regulatory cites ○ used to write notes ● Given the 835 form <ul style="list-style-type: none"> ○ with written regulatory requirements <ul style="list-style-type: none"> ■ written explanation of how the vessel does not meet the regulatory requirement ● Given collaboration among the team 	<ul style="list-style-type: none"> ● In a way that structures the captains' expectations <ul style="list-style-type: none"> ○ Explain how final results will be briefed <ul style="list-style-type: none"> ■ Describe positive findings first ■ Describe deficiencies after positive findings ● Such that the inspector manages the emotional context of the situation; <ul style="list-style-type: none"> ○ Read the captains body language and tone. <ul style="list-style-type: none"> ■ Speak using concise language ■ Communicate that the deficiencies found in the vessel are based on regulatory standards ■ Explain that there are NO personal issues or biases ■ Be sensitive to the impact the inspection and subsequent conversation will have on the crew members' livelihoods ● In the order of most egregious to least egregious deficiencies and corresponding regulations ● Stated potential impact of violations on naval operations ● Providing captains with all information necessary to make corrections to the vessel ● Resulting in captains acknowledging, via a signature on the CG-835 form, the deficiencies and corrections are regulatory requirements, not suggestions made up by the inspector ● Leave the vessel with no unanswered questions <ul style="list-style-type: none"> ○ satisfied captain

Course Introduction

Course Element	Description / Explanation	Resources	Graphics	Estimated Time
Course introduction [HINT: You may want to write the course introduction after you've written the summary]	Training will begin in the MSU Pittsburgh training room. The facilitators will be introduced by the Commanding Officer (CO). The CO will say a few words thanking the facilitators for coming to the unit, and will underscore the importance of the training. The CO will remind students of the unit's strategic goals and connect these to the training objectives. (It's customary for the leadership to be present for the introduction of guests). The facilitators will provide a brief description of themselves and their experience in this field. The facilitators will then briefly elaborate on the CO's comments regarding training's objectives and its alignment with the Marine Safety program's strategic goals.	<ul style="list-style-type: none"> • training room • projector • computer • tables/chairs • trainers • students 	<p>n/a</p> <p>Strategic goals listed</p> <p>Image of inspector talking with ship captain</p>	10 minutes

Unit 1: How to Brief Failed Inspections

Course Element	Description / Explanation	Resources	Graphics	Estimated Time
Transition from preceding unit (if applicable)	After the introduction the instructors will move on to the activation phase, where they will perform an exercise to recall the student's prior knowledge in order to make the training more effective. n/a	n/a	n/a	n/a
Unit Objective(s)	<p>See "Sequencing of Objectives" content above.</p> <p>Brief ship captains in a way that structures the captains' expectations</p> <ul style="list-style-type: none"> ○ Explain how final results will be briefed <ul style="list-style-type: none"> ■ Describe positive findings first ■ Describe deficiencies after positive findings • Such that the inspector manages the emotional context of the situation; <ul style="list-style-type: none"> ○ Read the captains body language and tone. <ul style="list-style-type: none"> ■ Speak using concise language ■ Communicate that the deficiencies found in the vessel are based on regulatory standards ■ Explain that there are NO personal issues or biases 	n/a	n/a	n/a

	<ul style="list-style-type: none"> ■ Be sensitive to the impact the inspection and subsequent conversation will have on the crew members' livelihoods ■ In the order of most egregious to least egregious deficiencies and corresponding regulations ■ Stated potential impact of violations on naval operations ■ Providing captains with all information necessary to make corrections to the vessel ■ Resulting in captains acknowledging, via a signature on the CG-835 form, the deficiencies and corrections are regulatory requirements, not suggestions made up by the inspector ■ Leave the vessel with no unanswered questions <ul style="list-style-type: none"> ● satisfied captain 			
<p>Activation</p>	<p>Students will begin the course with an activation activity.</p> <p><u>Previous experience:</u> They will recall a difficult conversation outside of work. A few learners can share what went well and what did not and why they feel that way. (Corollary 2.1)</p> <p><u>Connecting the experience:</u> The instructors will use an example from a learner that was just shared about a conversation that did not go well and explain what they will learn in this class to help them in the future. (Corollary 2.2)</p> <p><u>New experience:</u> The instructors will identify the skills described in their examples and how they can be applied to briefings after a failed vessel inspection by using the acronym LEAPS. (Corollary 2.3)</p> <p>Listen Empathize Ask Paraphrase Summarize</p>	<ul style="list-style-type: none"> ● training room ● tables/c hairs ● trainers ● students 	<p>n/a</p>	<p>10 minutes</p>

<p>Demonstration</p>	<p><u>Demonstration Consistency</u>: Videos will be developed for this training. The videos will show inspectors' and captains' briefing session after a vessel has failed inspection. The videos will highlight what to do and what not to do in order to give the inspectors a more complete picture of performance. Seeing briefing procedures will set the expectations for the inspectors. Each video will be shown twice: once all the way through to orient the learners, and the second time with pauses to facilitate discussions. (Corollary 3.1)</p> <p><u>Learner guidance</u>: At various points during the videos, instructors will pause to highlight complex, difficult, and critical information during the debriefing conversations. Inspectors are encouraged to engage with the instructors during these pauses. At the end of the video sequence, inspectors will be asked to point out any differences between the scenarios they saw and explain the effect of these differences. (Corollary 3.2)</p> <p><u>Relevant Media</u>: The instructors will show videos of ship captains becoming belligerent at the news that the vessel has failed inspection. Initially each video will be shown in its entirety. During the second showing, the videos will be paused at various points for discussions. During these sessions, inspectors will either pay full attention to the video or full attention to the discussions during the paused segments, but not both at the same time. Videos use auditory and visual channels to communicate. Discussions primarily use auditory channels. If instructors were to attempt discussions while the videos plays, cognitive overload would result in inspectors missing vital information. Referencing complex, difficult, and complex actions after deliberately pausing the video will ensure "multiple forms of media do not compete for the attention of the learner" (Merrill, 2002, p. 48). (Corollary 3.3)</p>	<p>-training room</p>	<p>n/a Video</p>	<p>20 Minutes</p>
<p>Application</p>	<p>Number of practices: 3 Number of assessments: 1</p>	<p>-4 rooms with desk and chairs</p>	<p>see training rotation</p>	<p>120 minutes to complete the 3 practices and 1</p>

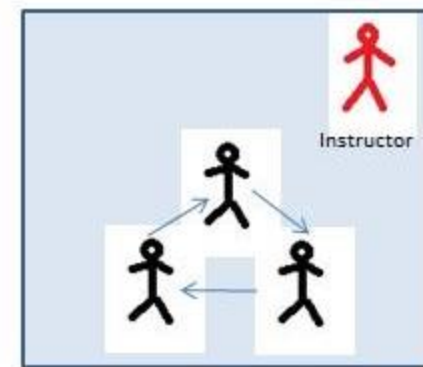
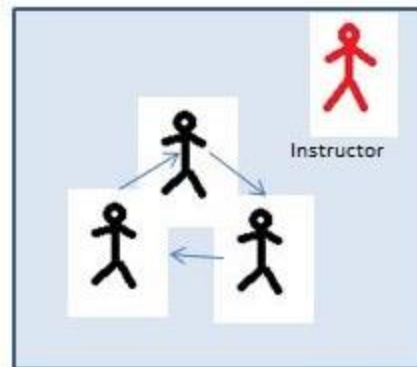
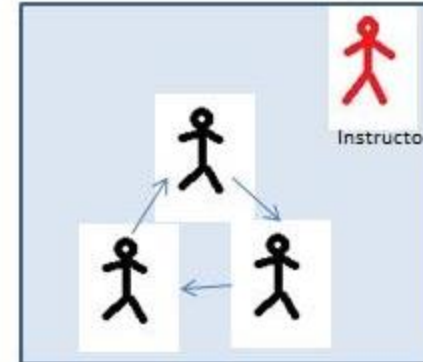
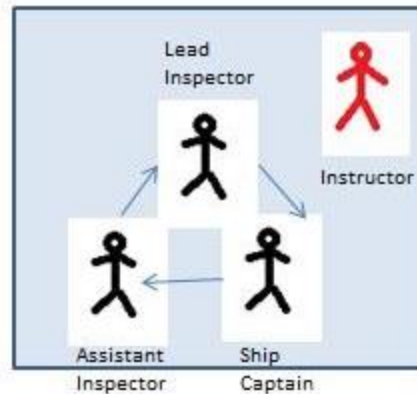
	<p>This training will allow for a maximum of 12 students. There will be four facilitators and four separate rooms to break into small groups of 1 instructor for every 3 students. All roles will be played by the students (1 captain, 1 assistant inspector and 1 lead inspector).</p> <p>After the demonstration phase is completed, instructors will split the students into four groups of three and send them to separate rooms. Each scenario will last approximately 8 minutes and all three students in each group will play all three roles for a total of 24 minutes. 6 minutes is allotted for transition time and instructions. Students will switch groups after each practice to prevent them from becoming too familiar with each other.</p> <p><u>Practice 1:</u> Instructors will provide students with the following script:</p> <ol style="list-style-type: none"> 1) <i>Captain</i> - cooperative towing vessel captain who is in agreement with deficiencies. 2) <i>Assistant Inspector</i> - remains quiet unless the lead inspector requests his/her input. 3) <i>Lead Inspector</i> - will only be given an 840 book with notes, and a completed CG-835 form. The inspector will have to communicate the failed inspection of a towing vessel that pushes coal. The CG-835 states the vessel failed due to the engine room having 2 ft of oil in the bilge and loose wiring in several locations. <p>The instructor will explain to role players 1 & 2 that they should remain respectful and cooperative throughout the briefing session.</p> <p>In this first scenario, instructors will prompt the Marine Inspector to meet certain critical criteria. If the role play veers off track, the instructor will call a training timeout, provide necessary coaching, and resume the scenario.</p> <p><u>Practice 2:</u></p>	<p>-4 instructors</p> <p>-12 students</p> <p>-Role-playing scripts</p> <p>-CG 835</p> <p>-840 book</p>		<p>assessment</p>
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	<p>After practice 1 all students will rotate to another room where instructors wait to hand the inspectors the script below:</p> <ol style="list-style-type: none"> 1. <i>Captain</i> - frustrated tank ship captain who is very inquisitive about the regulations. Had no idea that his tank vessel was in a condition to fail inspection. 2. <i>Assistant Inspector</i> - constantly interrupts the captain. 3. <i>Lead inspector</i> - will only be given an 840 book with notes and completed CG-835. They will have to communicate the failed inspection of a tank ship that carries crude oil. The CG-835 states the vessel failed inspection because the crew cannot demonstrate proper operation of the flue gas generator. Also, several Pressure/Vacuum (P/V) valves are malfunctioning. <p>The instructor will explain to role player 1 that s/he should ask many questions but will remain respectful. Role player 2 will be interruptive but is oblivious to his/her rudeness. Role player 1 will be instructed to discreetly call the attention of the assistant inspector and ask him to tone it down.</p> <p>In the 2nd scenario, instructors will provide subtle coaching as needed.</p> <p><u>Practice 3:</u> After practice 2 all students will rotate to another group where instructors wait to hand the inspectors the script below:</p> <ol style="list-style-type: none"> 1) <i>Captain</i> - irate cruise ship captain who is speaking very loudly and does not want to hear the inspector. The cruise ship captain is saying the United States government is discriminating against him because he is not an American citizen. The captain is threatening to call the Admiral, who is his personal friend, to have the inspectors fired. 			
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	<p>2) <i>Assistant Inspector</i> - will act very intimidated by the irate ship captain, and the role will be to remain very quiet, and not helpful at all.</p> <p>3) <i>Lead Inspector</i> - will only be given an 840 book with notes and completed CG-835. They will have to communicate the failed inspection of a cruise ship that carries 5000 passengers. The CG-835 states the vessel failed because there are not enough functional life boats, and crew cannot show proof that they have serviced all lifesaving equipment.</p> <p>The instructor will explain to role player 1 that s/he should act irate in addition to threatening the inspector. Role player 2 will not be much help in this scenario.</p> <p><u>Assessment</u> There will only be one assessment. The assessment scenario will be exactly as the third practice scenario. Inspector performance will be evaluated using the performance assessment checklist.</p>			
Integration	<p>Role-play during the practice exercises and assessment will be recorded by a stationary camera mounted on stand in the corner. Footage will be provided to each student so they can review and evaluate their own work after training has concluded.</p> <p>This will provide the students with the opportunity to make their skills public in two ways: (1) they will get to show skills during the assessment and (2) they will be able to show anyone the video footage of their exercises. (Corollary 5.1)</p> <p>Reviewing the video footage of themselves in action will be the ideal way for the students to look back over what they've learned. It can also serve as a refresher if ever they feel one is necessary. (Corollary 5.2)</p> <p>As students look back at the footage, they can decide what they did right and wrong, giving them the opportunity to explore different ways to use their new skills. (Corollary 5.3)</p>	<ul style="list-style-type: none"> ● training room ● tables/c chairs ● trainers ● students ● video cameras 	n/a	15 minutes

Training Rotation

Training Room
 This is where the introduction, activation and demonstration will take place.



Every student will practice all three roles of each scenario. Each practice will last 10 minutes for a total of 30 minutes per scenario. After each scenario is completed the students will switch groups so they do not become too comfortable.



There will be four rooms available to the 12 students for role playing. After each scenario, the students will change into different groups in order to keep students from becoming too comfortable with their teammates. The table below describes which room each student will attend for each scenario. Some students may be partnered together in more than one part scenario. Students will each be given a copy of this schedule so they know where to go for every scenario.

	Room 1	Room 2	Room 3	Room 4
Scenario 1	Jack James Janet	Jane Jasmine Jacob	Jennifer Jason Jackson	Jafar Jose Jim
Scenario 2	Jack Jane Jennifer	James Jasmine Jason	Janet Jacob Jose	Jackson Jafar Jim
Scenario 3	Jack Jasmine Jim	James Jacob Jose	Janet Jackson Jane	Jennifer Jason Jafar
Assessment	Jack Jacob Jason	James Jim Jackson	Janet Jose Jennifer	Jane Jasmine Jafar

COACHING TABLE

Strategy	Practice Scenario 1	Practice Scenario 2	Practice 3	Assessment
Reminder before activity begins	Instructors will review the objectives with the learner, remind them of the critical and difficult tasks, and to use form CG-835 as a guide. Instructors will remind the inspectors that the deficiencies written in the CG-835 legal requirements. Inspectors should be reminded to explain that the inspection results are not personal. Inspectors should be reminded that they have to manage the emotional context of the situation.	Instructors will highlight the critical criteria that was missed during scenario 1.	Instructors will explain that this 3rd practice scenario will be the same as the final assessment and that the Marine Inspectors will not receive any assistance from instructors or peers.	None
Coaching (error detection and correction)	Instructors will pause the scenario every time coaching is needed and resume the scenario for the Marine Inspector to try again. If a student is going in the wrong direction such as not reading the captain's tone or not managing the emotions then the instructor will have to direct the student in the correct direction and let them know that this is one of the most important and complex aspects of this task.	Instructors will provide quiet prompts or hints as necessary without stopping the scenario but to help the Marine Inspector if they get stuck or off track.	None	None

Delayed feedback	The instructors will give the students feedback after and during the first scenario. This feedback will be helpful for preparation for the next scenario.	Instructors will provide feedback at the end of this scenario to improve for the assessment.	Instructors will provide verbal feedback, a written assessment with specific comments on their strengths and weaknesses.	Instructors will provide verbal feedback, a written assessment with specific comments on their strengths and weaknesses.
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Course Summary

Course Element	Description / Explanation	Resources	Graphics	Estimated Time
Course summary	<p>A checklist will be used to measure inspectors' proficiencies on each of the checklist's noted tasks. Specifically, instructors check under "Y"--meaning yes--to indicate that the inspector completed the task. The will also leave detailed notes in the "comment" section if the inspector's action on a given task during the scenario earns a check under "N"--meaning to done to standard.</p> <p>In a whole group setting, the instructors will be asked to share aloud parts of the training that resonated with then. This functions as both a recap and reflection. Then the instructors will share a conclusion story about how the tips were successfully implemented on the job.</p>	<ul style="list-style-type: none"> • classroom • instructors • students 		5 minutes

Total course estimated time = 180 minutes

References

Merrill, M. D. (2002) First principles of instruction. *Education Technology Research and Development*. (50)3, pp. 43-59.

U.S. Coast Guard, (N.D.) Missions. *Maritime Prevention Program*, Retrieved from:

https://www.overview.uscg.mil/Missions/maritime_prevention/

Valdez, Campbell, & Stutt