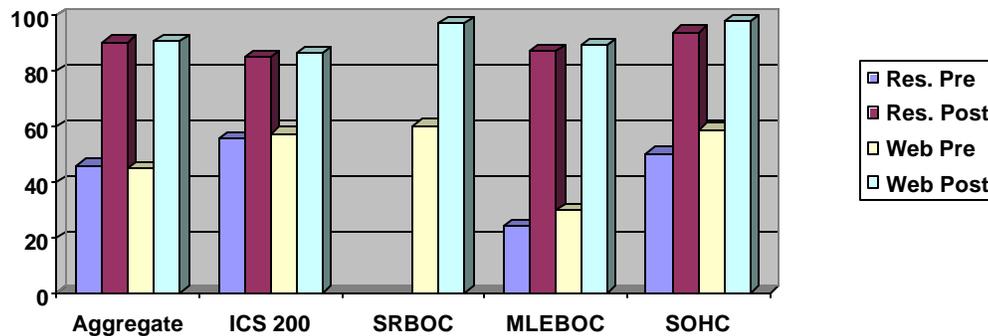# United States Coast Guard Live eLearning Study Summary

This white paper summarizes sections taken from the United States Coast Guard report titled "LIVE WEB BASED TRAINING (WBT) TRIAL". Coast Guard's Performance Training Center has completed this multi-course study comparing the Web-4M eLearning environment to traditional classroom training and has determined, "The Web-4M tool is an effective teaching, presentation and meeting tool"

Key results from the study were:

❑ Web-4M is effective for eLearning

❑ Students are pleased with Web-4M

❑ Web-4M delivers Return on Investment (ROI)

Effective eLearning

The USCG study compared traditional resident courses to Web-4M web-based delivery of the same material. The same instructors were used in both the resident and Web-4M course. Pre and post tests were administered to students to measure learning. The graph below is taken directly from the USCG report and depicts resident and Web-4M test scores.
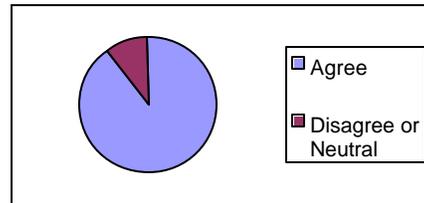

Pre/post test scores from USCG study.

Over 90% of instructor's teaching with Web-4M agreed with the statement, "Web-4M software is an effective teaching tool." The study concluded that: "Using the Web4M software versus bringing them to a resident class made little or no difference to the trainees in terms of their learning".
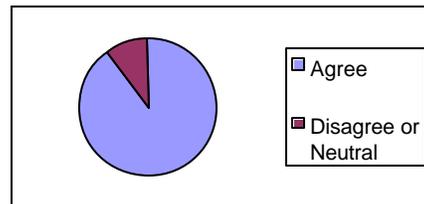
Student Satisfaction

Students taking the USCG's Web-4M classes were surveyed to assess their satisfaction with the live eLearning and Web-4M. Student satisfaction is depicted in the following statements and comments from class participants.

"I like the way information was presented in the lesson."

"I would be willing to take another web-based course in the future."
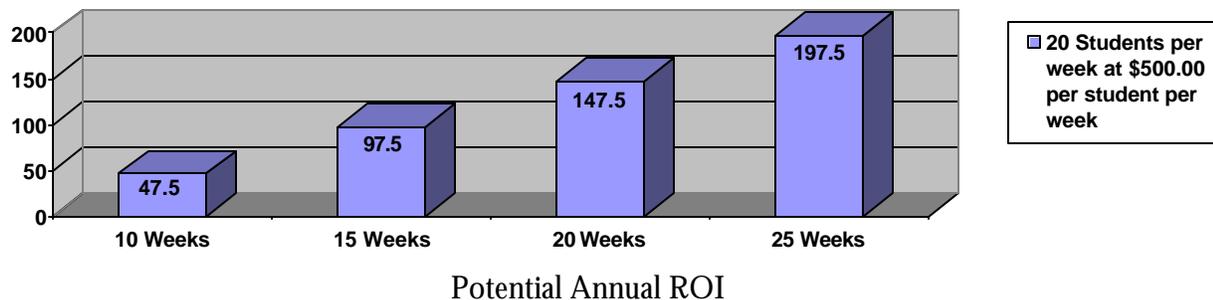
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The following typical student comments were presented in the USCG report (names have been removed):

- ❑ "I found the web based training to be much better than learning from books. The step by step visual method makes learning large amounts of information in a shorter time very effective. I hope this new program works out. I would be pleased to see more training offered in the future." *O6 Legal Officer*

- ❑ "I thought the instructors were great" and "Good job to the MLE Instructors in Yorktown. I wish it were possible to take more classes like this."

- ❑ "Fantastic for those "paper-pusher" courses like SOHC and other desk activities. My wife was happy to hear that a fly to Yorktown was avoided through this training media. This has the potential for saving oodles of money in transportation costs."

- ❑ "I think more schools should be given like this, especially ones in which classroom time is the majority of the lecture. This is the future of the Coast Guard."

- ❑ "If two people don't show up I can't get underway. This delivery method can really improve the ability of optimally crewed units to get training without impacting readiness."

- ❑ "I see a lot of potential for this tool and this technology…very much enjoyed receiving my annual ethics briefing this way." *U.S. Army SES level Information Resources Officer*

Return on Investment (ROI)

Cost for resident training is based on a cost of $500/student for one week of resident training. Additional weeks are based on a cost of $10/day/student. This cost factor does not include fixed costs for infrastructure that are specifically tied to students. "ROI calculations are solely based on travel cost recovery although there are significant potential efficiencies and savings if distance delivery enables eventual resident infrastructure reductions."

The following figure, excerpted from the USCG report, depicts annual savings based on 20 students per week using Web-4M for live eLearning instead of resident training (not tied to a specific course).

Potential Annual ROI

The report states that one of its three primary goals was to, "Measure specific costs and benefits tied to this delivery method", and then states that this method, "Saves approximately $200K per 500 trainees."

The report also goes not to discuss less quantifiable benefits such as:

> "JIT training support, hybrid training systems that effectively join advanced distributed learning systems with resident instruction and performance support, quality of life improvements, and improved manning levels have the potential to have an even greater impact on Coast Guard operation."

> "It offers trainers and professional support staff the enhanced ability of "bringing in" expert guests into training sessions to improve communications between centers of excellence, the field and the training community."

Conclusion

The Executive Summary of the report addresses the three primary goals of the trial and study,
"They were:

1. Identify if live WBT is a good fit given our equipment and culture. *It is!*

2. Determine effectiveness differences between WBT and resident instruction. *They are equivalent in quality and performance.*

3. Measure specific costs and benefits tied to this delivery method. *Saves approximately $200K per 500 trainees*."

The summary of the report concludes with:

> "The technology we used is *proven, available* and can *significantly* reduce current training costs while enabling us to actually improve training system access and responsiveness for our workforce. In an era of optimal crewing, when even a minor personnel shortfall due to resident training requirements can significantly impact mission readiness, live WBT offers us the opportunity to provide timely, focused and responsive training without giving up the rich level of interactivity and flexibility found in resident instruction. We were able to successfully deliver training from an instructor's desktop at Yorktown to a wide variety of Coast Guard units, including a cutter six miles offshore working buoys! "

Since this trial and study the USCG has adopted Web-4M for large scale eLearning deployment.

USCG Live eLearning Study