New course developed at the College of Maritime Operational Warfare: The International Maritime Staff Operator Course

By Mike Hallett

The International Programs department at the US Naval War College has developed an International Maritime Staff Operators Course (I-MSOC) in order to answer the demand signal from international partners for operational level focused maritime training. The first session of the course will be held in Spring of 2018. As described in the course overview, “The International Maritime Staff Operator Course (I-MSOC) is an unclassified, twelve week course jointly produced by the United States Naval War College (USNWC) International Programs and the College of Maritime Operational Warfare, to provide international naval officers the knowledge and skills needed to support the planning and execution of maritime operations and integrate with existing operational planning teams. Designed to meet the learning needs of O-3 to O-5 (NATO OF-2 to OF-4) maritime officers, the course uses the US Navy Maritime Operations Center (MOC) as an organizing concept, and is informed by NATO, UN joint and US Naval doctrine, with a special emphasis on the US Navy Planning Process as described in Naval Warfare Publication NWP 5-01 Navy Planning.” This article describes the I-MSOC development process as a preliminary high-velocity learning (HVL) implementation case study. For the purposes of this article, HVL experiences are powered by three “engines” or design principles: competency development focus, multidimensional assessment and metacognitive awareness. The I-MSOC use of these design principles is described below.

Competency Focus

The focus on competency development is the first HVL engine, or design principle. The course is modeled upon the extremely successful competency based USNWC Maritime Staff Operators Course (MSOC) which, in accordance with the US Navy MOC standardization guidance, has since 2007 prepared staff officers for service with US Fleets. Building on the MSOC model, “The course introduces maritime component staff’s baseline fundamentals and develops key competencies in students that enable them to comprehend, analyze and apply maritime operational level process and procedures necessary to plan, prepare, execute and assess combined maritime operations.” This I-MSOC focus on competency development contrasts with much of the current non-military educational system as described by Michelle R. Weise and Clayton M. Christensen in “Hire Education: Mastery, Modularization, and the Workforce

Revolution”. “The current education system separates learning to know and learning to do. Rather than giving students broad, interdisciplinary problems to solve, colleges and universities channel students through narrow specializations that have become artificially separated from one another.” I-MSOC, in contrast, is built on a series of increasingly complex scenarios within which the students act, and through acting, learn. As Weise and Christensen write, “By being presented anomalies and real-world problems, students must be able to connect ideas on their own without necessarily knowing that different solutions come from different disciplines. Identifying how a body of understanding fits together is more useful than understanding the boundaries between disciplines.” In the I-MSOC case, the course learning experiences are explicitly focused on shaping the maritime operational level “body of understanding.”

Powerlifting offers a metaphor for the competency development process. A powerlifting coach provides an overall description and demonstration of a movement (a deadlift for example), and then breaks down the movement into its discrete parts. The athlete practices each part using a PVC pipe until they can do the movement correctly. Once the competency in the low risk PVC pipe use is demonstrated, the athlete performs the movement using an unloaded bar and finally, demonstrating proper technique at each step, begins the process of developing increased competency at ever higher loads.

Similarly, the I-MSOC instructor demonstrates the staff skill or step in the planning process for the students. He or she then provides a lecture, or leads a discussion about a doctrinal reading to enrich the student’s knowledge of the step. Following this the students are given the opportunity to perform the task, for example, center of gravity deconstruction during mission analysis, with the instructor there to provide rudder adjustments and ensure the students are executing the processes just described to them appropriately. By guiding the student through demonstration, analysis, synthesis and practice, the instructor enables the students to translate their initial hesitant understanding into fluent competency mastery.

Based on the MSOC model, I-MSOC is designed to develop multinational staff officer competencies in six areas: current operations (COPS), future operations (FOPS), Future Plans (FPLANS), assessment, planning and staff skills. Weise and Christensen explain the utility of this approach, “By breaking down learning into competencies – not by courses or even subject matter – these [courses] can cost-effectively combine modules of learning into pathways that are agile and adaptable to the changing labor market.” The “labor market” in this case is the global network of maritime security organizations that attend the Naval War College. I-MSOC adds

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multinational elements to the competency set in order to ensure the course meets our International Partner’s learning needs as an international course, not a US course simply delivered to an international set of students.

The course enables students to develop mastery in facilitating the commander’s decision cycle within the maritime operations center (MOC) by acquainting students with the bundle of knowledge, and giving the opportunity to practice the skills in a realistic context, that constitute the required staff competencies. This focus on mastery (not time spent in the classroom) as the measure of effectiveness, enables learning cycle compression. This compression generates the “high” in HVL. I-MSOC Mastery demonstration requires multidimensional participation in course activities such as lectures, operational planning team discussions, and performing MOC tasks during the battle lab. However, students develop mastery at different rates. If a student appears unable to execute the cognitive tasks associated with, for example, the mission analysis step of the navy planning process, the faculty intervene to provide additional explanation. This interaction takes place unobtrusively, and ensures that no student gets ‘lost in the shuffle’ and finds that the course has moved onto the fourth step of the Navy Planning Process while he or she has still not completely grasped the first. These focused, personalized instructor interventions substitute instructor effort for class time, ensuring each student receives the support necessary to master the skills and knowledge bundles associated with each phase of the course.

Multidimensional Assessment

In order to support competency development, the second HVL design principle, multidimensional assessment (of students, faculty performance and the course design itself) persistently informs I-MSOC. Faculty observation of student action, discussion, and evaluation of delivered briefs by the faculty occurs continuously (not only upon course conclusion) in order to assess the degree of student mastery. For example, briefs are delivered both informally within operational planning teams and formally to the entire class, providing students multiple opportunities to demonstrate their command of the briefing competency bundle as well as giving instructors insight on where additional guidance is necessary.

The timeliness of the continuous assessment constitutes a major advantage of the competency-based approach over the time-based instruction model. While in traditional instruction students receive periodic feedback in the form of tests, such as a midterm and final exam, the feedback provided is often too late and insufficiently granular for the student to act on effectively. A poor grade on a midterm or final exam provides only an indication of a learning deficiency. It does not reveal to the student the root cause of the deficiency – poor study habits, a misunderstanding of a fundamental point, or sloppiness. Just as on the ship a Sailor is not
sent before a qualification board without completing their personal qualification standard and a preliminary board administered by their mentors, in I-MSOC the student who performs poorly in a brief to the Operational Planning Team is assisted in improving his or her briefing skills before providing the decision brief to the Commander in front of the entire class. Thus the continuous assessment within the competency-based approach provides meaningful feedback and gives the student the opportunity to re-engage with the task until mastery is achieved.

In addition, faculty performance and the structure of the course itself are assessment targets. A student’s inability to demonstrate increasing mastery of a competency provides signals concerning not only student, but more importantly, faculty performance. Student failure to achieve mastery generates a requirement for the faculty to adjust their teaching style in order to more effectively transmit the content in ways that facilitate student understanding of the material. The competency based approach, unlike schedule dependent testing (e.g. midterm, final) provides valuable feedback to the instructor side of the learning equation in time for the feedback to inform the instructional process and thus benefit students.

Metacognition

The third HVL engine is the surfacing of metacognition, or thinking about thinking, within the learning experience. According to Paul R. Pintrich in “The Role of Metacognitive Knowledge in Learning, Teaching and Assessing” metacognitive knowledge can be divided into three main types. He explains, “Strategic knowledge refers to knowledge of strategies for learning and thinking. Knowledge of tasks and their contexts represents knowledge about different types of cognitive tasks as well as classroom and cultural norms. Finally, self-knowledge is a critically important component of metacognitive knowledge.”

The metacognitive activities in I-MSOC include discussion of mental models especially pertinent to the competency focus area, such as the steps of the Navy Planning Process and tips on how students can examine their own learning styles. This metacognitive awareness enables students to learn more efficiently and effectively, and thus increase their overall learning velocity.

Conclusion

Through application of the three HVL engines, I-MSOC generates a high speed, low drag exciting learning experience for the global maritime community. For more information about the course (MASL P179622), please visit https://usnwc.edu/college-of-maritime-operational-warfare/International-Maritime-Staff-Operators-Course or write to I-MSOC@USNWC.edu.

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Pintrich, Paul R. (2002). The Role of Metacognitive Knowledge in Learning, Teaching and Assessing Theory Into Practice (Vol. 41): Taylor & Francis, Ltd.


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