

Army JROTC's 21st Century Curriculum



Well integrated learning technologies and teaching practices are central to the newly launched Army Junior Reserve Officers' Training Corps' (JROTC) curriculum enhancement.

Now, every component of the learner-centered curriculum – from lesson plans and performance assessments, to teaching aids, learning objects and serious games, are organized within a custom application – the curriculum manager (CM). Using the CM, which is packaged in an external hard drive, JROTC instructors have all learning and teaching tools at their fingertips in one application they can use anywhere and at anytime. Additionally, the new CM contains content ensuring physical education (PE) and health curricula – also usable by Air Force, Navy and Marine JROTC programs – fulfill state and national standards.

Debuts

“The new curriculum and CM were developed to meet the challenge to create a 21st Century learning experience in which nearly 8,000 instructors from all service JROTC programs could readily implement across a range of school environments,” says Donna Rice, Ph.D., Army JROTC Chief of Education.

“The CM contains a range of emerging and traditional technologies that create meaningful learning using performance-based, experiential student-centered methodologies.”

The Army JROTC

Army JROTC, which enrolls nearly 300,000 high school students worldwide, focuses on citizenship, leadership, fitness, and global awareness, with community service and service learning as main program components, according to Rice. Meanwhile, Army JROTC also works to help high schools meet their goals of student achievement. The program includes seven units of instruction: Citizenship in Action; Leadership Theory and Application; Foundations for Success; Wellness; Fitness and First Aid; Geography, Map Skills and Environmental Awareness; Citizenship in American History and Government; and Cadet Safety and Civilian Marksmanship Program (optional).

JROTC curriculum strives to engage cadets during a time when many high school students say they are uninterested in school, according to Bryon Hand, Chief JROTC Curriculum. Sixty-eight percent of students who drop out of school do so because they are not motivated or inspired, while 47 percent claim it is because class is not interesting, according to “The Silent Epidemic: Perspectives of High School Dropouts,” by John M. Bridgeland, John J. Dilulio, Jr. and Karen Burke Morison, Civic Enterprises in association with Peter D. Hart Research Associates. JROTC cadets possibly do better in school because many different aspects of the program motivate and inspire them to achieve and JROTC classes are student-centered and exciting,” says Rice.

During the 2008-09 academic year, 98 percent of Army JROTC cadets graduated, compared to 86 percent of the students not engaged in the program, according to Army JROTC reports. Moreover, Army JROTC students enjoyed an average GPA of 2.9, compared with the 2.68 of non-JROTC students.

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The Army JROTC's new curriculum mirrors best practices in teaching and learning, according to Rice, ensuring instructors have every tool close at hand and students stay engaged in learning. In two years, the curriculum was redesigned, repackaged and launched, with help from WIDS software, consulting and training services; CACI International Inc., a provider of professional services, such as training and operations; Science Applications International Corp. (SAIC), a company delivering services and solutions based on innovative applications of science and technology; and eInstruction, a provider of interactive classroom technology and services for K-12, higher education, and corporate and public sectors.

Engaging the Instructor – Portability and Performance Support

To simplify teaching the CM is housed within an external hard drive, which makes the new curriculum portable, according to Hand. “The JROTC instructor has three priorities and one requirement for classroom instruction,” he says. “Instructors must know what, when and how to teach, and have the ability to plan and prepare outside the classroom.”

They also give instructors quick access to training videos that provide an overview of the curriculum design, core teaching principles and critical technical tasks for utilizing the application, as well as the new PE and health curriculum. The new PE and health curriculum, which can be used by all service JROTC programs, includes competencies, lesson plans, student

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learning plans, assessment tasks, and more. The curriculum for the entire Army JROTC program is greatly enhanced – and as always – learner centered and performance based, maintains Hand.

Each lesson is about 90 minutes and includes a graphic user interface (GUI) and four-phase lesson plan. “The GUI is how the lesson is presented,” says WIDS Learning Design Consultant Kim Vosicky. “All kinds of learning objects and assets are built into it, from learning activity directions to content delivered through embedded video and learning objects; to formative assessment with built-in feedback.” With a click of the mouse, instructors easily access all curriculum content and resources, including videos, educational software, regulations, formative assessment questions and answers, the new health and PE electronic text, the new Community Emergency Response Team (CERT) Alert video game, and documentation for the learner and instructor.

Once logged in, instructors can access everything they need in three clicks of a mouse:

- Click One: Select a period and take attendance
- Click Two: Pick a lesson
- Click Three: Launch the GUI (presentation)

“Previously, all of these pieces were on multiple DVDs and in textbooks,” says Rice. “Now instead of digging through a closet to find a resource, it’s all on the hard drive. Instructors have at their fingertips anything needed to make a learning experience engaging, rewarding and effective.”

And, since Army JROTC provides instructors with computers and the hard drives, they can take their computers with them to work on lessons and customized presentations. Moreover, the instructors can download curriculum updates directly from a JROTC Web site.

Engaging the JROTC Student

And, to engage the students and enhance learning, WIDS worked closely with eInstruction to develop appropriate assessment questions. These questions complement the already rich technology available for

learning, including an automated response system, and the new CERT-ALERT video game!

“The new curriculum uses a series of questions and an automated response system to focus students on a new learning experience – helping them to see what they already know, and preparing them for what they don’t know yet,” says Vosicky. Each lesson includes warm-up questions to prepare for learning; reflection questions allowing students to share their thoughts; questions for formative assessments to determine if students have mastered the content; and finally, summative assessments. “Students use their clickers to respond to the questions – keeping them engaged,” says Vosicky.

WIDS worked closely with JROTC to realign and develop curriculum to address national and state standards.

An automated response system developed by eInstruction provides each student with a hand-held response tool for “clicking” in answers. The tool interacts with a classroom receiver to record answers – providing key information about student learning.

The questions check for comprehension of new content and vocabulary, as well as engage students to apply what they have learned to scenario-based inquiries. “It’s a dynamic learning process,” says Hand.

The “clickers” are also used to play the CERT-ALERT video game, which focuses on basic first aid, CPR, bleeding and fractures. The game uses avatars as the injured victims and allows students to apply first aid training to simulated accidents, disasters, or injuries. Instructors create specific scenarios that simulate an accident or injury, such as a car collision, and students use clickers to respond to each scenario – providing first aid to a victim. The class and individual students can then be assessed on their knowledge of first aid in specific situations. The game can be set to have multiple types of victims and injuries – bleeding, fracture, head trauma, choking – at the scene, requiring students to respond to all victims within a realistic time frame.



“The results of their responses serve as the performance assessment for a first aid lesson,” says Rice. SAIC was the developer of the game for JROTC and worked closely with eInstruction on the scenarios and responses. SAIC is also responsible for developing one of the most played games on the Internet, “America’s Army,” according to Hand. “As far as we know, no one else has attempted to integrate response pads and serious games – two proven educational technologies – to advance learning,” he says.

Health and PE fulfills Core Graduation Requirements

Another key change in Army JROTC’s curriculum came in PE and health. Of the 188 lessons in the four-year Army JROTC program, 64 were redesigned for health and PE. Now, the health and PE competencies align more closely with state and national standards. This was of critical importance, according to Rice. “We need to be able to show educators and state officials who may agree to permit, or who already allow JROTC to substitute for PE and health, that their students are meeting and often exceeding the standards,” she says. “We can take the curriculum to individual states and districts and show where we have curriculum that fulfills and links to required national and state standards,” says Rice. Vosicky and WIDS worked closely with JROTC to realign and develop curriculum to address those standards.

Today, according to Rice, health and PE, though not considered core, are still required by states and/or districts for graduation. Simultaneously, high school core credit requirements for graduation have increased across the country. As a result, students often must cut back on elective courses to just one or two per year, which does not leave much room for fitting in JROTC. But, by carefully ensuring all PE and health curricula outcomes link to National Health and National Association for Sports and Physical Education standards, more and more states and districts may continue to permit, or consider allowing substitution of PE and health requirements through JROTC. “Where substitution is allowed, the JROTC instructors generally work hand-in-hand with the PE and health teachers and create a win-win for the student,” says Rice.

In the end, a comprehensive health and PE curriculum emerged that satisfies high school graduation requirements and can be used by all the JROTC service branches. Through an interservice agreement, all services integrated response systems and agree to contribute to curriculum development that could be used by all. As a part of that agreement, the Air Force developed a cultural/global awareness curriculum that the Army will incorporate into future updates. In addition to PE and health and cultural awareness lessons, the entire curriculum was reviewed and enhanced to better engage students.

Curriculum Launch

Finally, CACI pulled the independent components of curriculum together into a final product – a hard drive. “The programmer for CACI, Husam Saoudi, almost single-handedly developed the state-of-the-art product under the expert guidance of Nancy Hite, the program manager for the project,” says Rice. Once complete, JROTC instructors were trained to use the hard drive and CM during Training Brigade Workshops in July and August. Continued updates to the CM, as well as training in future workshops and through an elite group of “Train the Trainers”, is a part of the strategy of continuous improvement.●