

Web-based programs work for the lab manager

By Heidi Learn

Laboratory supervisors are challenged with what may seem another full-time job — providing education on diverse topics to employees to help them excel at their jobs. A relatively new solution to this responsibility is the Internet. Harnessing the power of the Internet to supplement rising educational requirements can have several advantages.

Web-based training is fast becoming a popular option in laboratory training, and is a form of e-learning — the delivery of learning, training, or education by electronic means.

E-learning incorporates a greater variety of equipment than “online” training or education, which implies the use of the Internet or an intranet. Web-based training is divided into two categories: synchronous and asynchronous.

In synchronous Web-based courses, the instructor and students log on to a common website where the instructor presents slides and live demonstrations. Students, whatever their location, interact with the instructor and other students. In asynchronous Web-based courses, the course material is pre-recorded. Students can take classes at their convenience, including off-shift hours. Asynchronous courses are available online 24/7. Managers and employees no longer are required to adjust their schedules for training. Courses may offer simulations and games to engage the student and reinforce learning.

With a learning-management system, supervisors can use the Internet to coordinate training, such as assigning classes, registering students, and tracking their progress. Employees’



Training rooms, computer labs, lounge areas, and their own homes are all places from which students can access online classes.

training records, including test scores, can be printed.

Advantages to e-Learning

Many other advantages make Web-based training appealing, too:

Cost. Although e-learning may appear to be an expensive proposition, consider that most facilities probably already have most of the equipment and Internet access that will be needed; in fact, money will likely be saved on travel expenses and salary for temporarily nonproductive employees.

Convenience. Students can access the Internet for classes at any public

location: a training room, computer lab, lounge area, or even at home.

Standardization. With Web-based training, all employees receive a consistent and standard message since a single instructor can reach a wider audience.

Easily updated. A distinct advantage of Web-based training is that updates are almost immediate, unlike training videos or CDs, which must be republished and redistributed. For students who have completed the course, the instructor can simply reassign the changed portion.

Larger audience. Because Web-

based training reaches remote employees and employees with diverse work schedules, a larger percentage of staff can be educated, leading to increased compliance rates for mandated training.

Just-in-time. New employees who

spend hours in orientation are often unable to recall how to perform certain tasks. With e-learning, they can take classes to coincide with tasks, resulting in greater retention.

Review and reference. Asynchronous courses permit students to train

multiple times. For “refreshers” or for checking on a specific detail, they can simply relaunch the course.

Nontbreating. In Web-based classes, students — and even the instructor — may not know who is asking the questions. Rather than miss out

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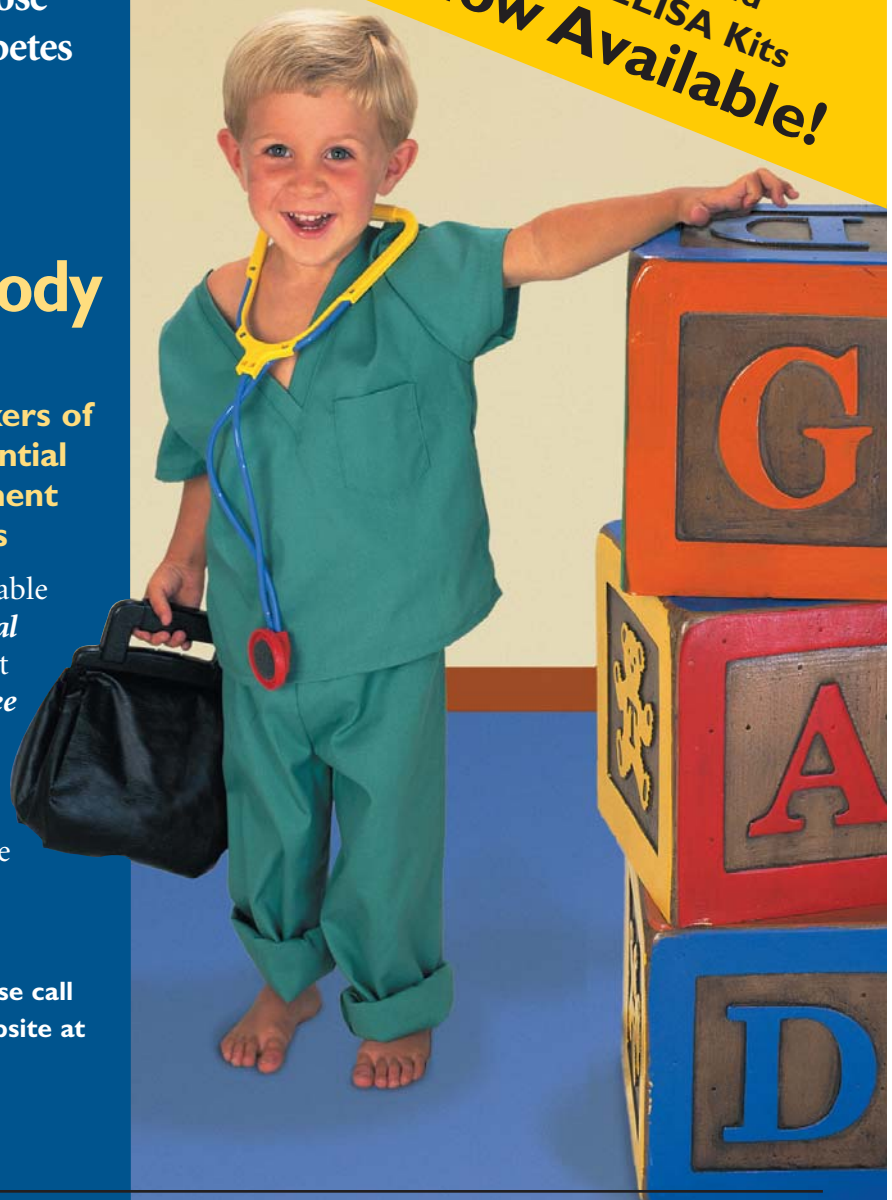
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on crucial information because they are too afraid to ask questions, students are more likely to participate fully. Self-paced courses involving simulations enable students to make mistakes without penalty.

Modular. Most e-learning courses are offered in manageable chunks. A particular course might be 15 minutes up to two hours. Course designers are aware that extended seat time may actually inhibit learning; consequently, they subdivide complex topics into smaller lessons. Not only will employees spend less time away from work, they may actually *like* attending class.

Resources for Web-based training

So, how do you get started? Investing in off-the-shelf products (i.e., CD-

ROMs or DVDs) is a feasible and tested solution; however, Web-based training is convenient and can be implemented without the purchase of products — either separately or as a collection — and seeking a customized solution might be more time-consuming. Examples of Web-based courses are:

With a learning-management system, supervisors can use the Internet to coordinate training.

HIPAA. MindLeaders (<http://clikngo.com/learn/hipaa/index.html>) offers HIPAA-training courses based on job duties. Courses cover both general and role-specific requirements of HIPAA. General training covers

HIPAA privacy rules and guidelines, including computer security and treatment of confidential information. The role-specific training provides modules designed for different professions or occupations, such as physicians, dentists, nurses, billing staff of a hospital, or department managers in a health-insurance organization. Courses include multiple-choice questions, online recording of scores, and an online printable certificate upon course completion. Supervisors have access to employees' progress reports.

JCAHO. The Joint Commission on Accreditation of Healthcare Organizations (www.jcrinc.com/onlinebooks.asp?durki=2570) provides Web-based courses for quality improvement. These courses are self-paced and take

A custom approach to online learning

By Bill Strelke

When Sysmex America wanted to achieve greater efficiencies in its customer training, it turned to Knowledge Anywhere to create an online educational program to support lab technicians in the field. Knowledge Anywhere builds technology-based learning solutions and performance-support systems, and streamlines education and training for organizations.

Sysmex needed a Web-based course to introduce its XE-2100 and XT-2000i hematology analyzers to give new instrument owners a basic knowledge about the tools before attending the classroom portion of their training. Sysmex used other methods of computer-based training prior to implementing its online education program, such as CD-ROMs, and was looking to augment these tools with an online element.

The process of planning and developing an online solution should be collaborative, thoughtful, and, ultimately, serve the end-users' learning and retention needs. Sysmex's online education solution aimed to

- give laboratory technologists access to targeted information and job aids so they could learn at their own pace, in their own space;

- provide consistent, relevant information to laboratories throughout North America;
- empower users to be self-reliant, thereby streamlining classroom training, field-service visits, and customer-service calls;
- quantify course-work results to ensure an understanding of the theory and operation of Sysmex instrumentation; and
- provide continuing education units for the ASCLS P.A.C.E. units.

To create the custom site, Sysmex and Knowledge Anywhere worked together and

- determined site objectives — how the company envisioned the end product in terms of content and ease of use, and their basis for measuring the site's effectiveness;
- sent Knowledge Anywhere's industry expert Barb Nordin, a medical technologist and technical writer, to the Sysmex Training Center to observe and participate in the classroom training. Barb immersed herself in the class and determined what portions of the training made sense to take online; and
- developed a comprehensive Knowledge Anywhere outline of the course, complete with storyboards, so Sysmex could visualize precisely the end-user experience. The storyboards in-

cluded interactive portions of the site, such as animated quizzes and the "your turn" sessions where the end-user practices what he has just learned.

When preparing to develop an online education portal for customers and employees, companies should consider whether the site will be a supplement to or a replacement for their current training. Another important consideration is whether an expert is needed to develop the content for the e-learning program. For the medical industry, having an expert on board can be an efficient and cost-effective way to ensure the proper information is incorporated.

Online education can be a critical component for end-users in labs across the globe to have convenient access to information that makes their jobs easier. Careful consideration of the end-users' learning and retention needs will make online learning a vital and lively component of a company's training program and will establish the company's reputation as a provider of technical solutions to technical problems. □

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about one hour to complete. A bookmark feature allows the student to leave the program without losing his place. Hyperlinks are embedded so that the student can research other websites. Registration, content evaluation, and assessment are all automated and paperless. Once the course is finished and knowledge checks are successfully completed, a learning certificate can be printed indicating the continuing education credits earned.

Safety training. HighQ (www.highqllc.com/webtraining.html) offers online classes explaining the shipping of diagnostic specimens and infectious substances. This is the same course conducted at on-site seminars. The student accesses the online video and audio program along with the training manual. At the course's conclusion, the student is directed to the training link to take and submit the test. Then, the test is graded electronically and sent to HighQ. A certificate of completion is sent to the student.

Continuing education. WebPath (<http://www-medlib.med.utah.edu/WebPath/webpath.html#menu>) is an interesting Web resource with more than 1,900 images, including text, tutorials, laboratory exercises, and examination items for self-assessment that demonstrate gross and microscopic pathologic findings associated with human disease conditions. Featured is a "Case of the Week" and tutorials.

The American Society for Clinical Laboratory Science (www.ascls.org/education/) provides links to courses such as MediaLab, which offers individual

and institutional subscriptions to online courses designed exclusively for laboratory professionals. More than 50 hours of ASCLS P.A.C.E. credit can be obtained for only \$95 per year (individual subscription price). Each course consists of interactive training material and a quiz. The student earns a certificate granting ASCLS P.A.C.E. and California CME credits upon successful completion. Many colleges and universities also offer Web-based classes that can be applied toward degrees in clinical laboratory science or used as refresher training. Go to the ASCLS website for a directory.

Web-based training gives managers a convenient way to develop and encourage ongoing learning among lab professionals.

Laboratory equipment. Consult instrument vendors to learn which of them offers Web-based training. Beckman Coulter Inc., for example, offers online laboratory course topics. After viewing a presentation, the student submits the completed test, along with a check, to Beckman. Viewers who pass the test scoring 70% or higher receive a certificate indicating the contact hour(s) earned. Beckman Coulter is an approved provider of continuing-education programs in the clinical laboratory sciences through ASCLS P.A.C.E.; its programs are recognized by the state of California. Beckman Coulter is also accredited by the Florida State Department of Health as a con-

tinuing-education provider. Visit www.beckman.com/customer-support/trainingeducation/elearning/elearning.asp.

Laboratory information system. iMentor (www.misysimmentor.com) is a subscription-based online client-training package that enables access to the Misys Healthcare System's iMentor Learning Management System and a variety of live, online, and instructor-led learning events, as well as self-paced courses. Some courses offer continuing education units via the ASCLS P.A.C.E. program. The course catalog contains more than 100 asynchronous courses and 60-plus synchronous e-learning classes. Other LIS vendors also offer these types of courses; it may be wise to check out what is available by visiting the websites of various companies.

Educate with e-learning

With the expanding array of coursework now available online, laboratory managers have access to an increasingly interesting range of selections from industry- and regulatory-focused organizations, laboratory testing and equipment vendors, continuing-ed providers, and safety-training specialists, among others. Web-based training gives managers a convenient way to develop and encourage ongoing learning among lab professionals, which allows them to stay current with various knowledge bases. □

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