Raising the Bar

A Report on the Success of Train & Assess IT™ in Higher Education Microsoft Office™ Instruction

BY MICHELLE D. SPECKLER

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Beverly Fite, Amarillo College
Susan Fry, Boise State University
Richard Hewer, Ferris State University
Jeffrey Howard, Finger Lakes Community College
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Raising the Bar: A Report on the Success of Train & Assess IT in Higher Education Microsoft Office Instruction
By Michelle D. Speckler
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Introduction

America’s higher education industry is at a flash point. A new vision of learning is emerging comprising new and more productive learning environments. It is inextricably tied to technology and is driving not just education but the whole of the American economy.

The growth of this new economy—a knowledge economy informed by a combination of technological advances and an acceleration of the accumulation of knowledge—will rest squarely on the shoulders of the technologically literate. Jobs will go to those individuals who can most quickly and effectively generate, capture, manage, and apply information. Even today, shifts are evident in the U.S. job market. Twenty of the 30 occupations projected to be the fastest growing over the next decade typically require an associate degree or higher. Of the 30 jobs projected to have the largest declines, only one requires a postsecondary degree.1

These shifts are also visible in the changing face of student demographics. Americans are entering education and training institutions in much greater numbers, with greater frequency, and with greater diversity in terms of age, experience, background, and need. This is creating the need for more flexible and diverse education and training offerings. For example, nearly half of all postsecondary students are older than the age of 25, underscoring the need to provide education and training that is convenient for working adults.2

How do we accommodate both the shift in demographics and the challenge to reshape our nation’s base of knowledge and skill? According to Phillip J. Bond, U.S. Under Secretary of Commerce for Technology (2001–05), the answer lies in “marrying education and training . . . integrating learning into our work and our lives, making learning opportunities ubiquitous and individualized.” The answer lies in courseware that diminishes the challenges of travel time and costs, enhances the productivity of class time, and can be made available around the clock, at work, or at home. And in courseware that eliminates the teaching-to-the-middle conundrum, creates individualized learning content, and enables teachers to reach more students.

Prentice Hall’s Train & Assess IT™ (TAIT) is that courseware and more—not only by serving students in the classroom but also by positively influencing students’ lives beyond it. “TAIT introduces students to a training model that future employers will use;” says Lancie Affonso, Director of Information Technology Fluency, College of Charleston. “It raises the bar on their skills and on their understanding of the kind of technology ubiquitous in a global community, thereby providing students with a value add in the eyes of future employers.” This is the power of Train & Assess IT. This is why more than 86,000 students across the nation used Train & Assess IT in 2005 and why projected figures indicate at least 95,000 more will come on board in 2006. The reason is that at its base, Train & Assess IT means more than just a higher grade; it means the security of a good job in the knowledge economy of tomorrow.

Taking Action

A college’s purpose is not to transfer knowledge but to create environments and experiences that bring students to discover and construct knowledge for themselves, to make students members of communities of learners that make discoveries and solve problems. The college aims, in fact, to create a series of ever-more-powerful learning environments.²

Prentice Hall’s Train & Assess IT (TAIT) is Web-delivered, customizable assessment and training software designed to create a unique learning path for information technology students. Skills-based assessments are mapped to each Prentice Hall textbook series and can be tailored to suit your requirements; and training is structured through interactive tutorials in a simulation environment. (For a complete list of textbooks available for use with TAIT, see http://www.prenhall.com/tait.) Unlike other online products, TAIT isn’t an expensive add-on. It’s a revolutionary new way of teaching and learning—and it works. Institutions across the country are reporting higher pass rates, higher student satisfaction, and lower withdrawal/fail rates than in traditional courses.

How Train & Assess IT Works

TAIT usage has increased every year since its debut in fall 1999—and by a whopping 25 percent from 2004 to 2005. Even more impressive is TAIT’s 2005 retention rate: more than 84 percent—a 35 percent increase from the 2004 rate.

The linchpin of TAIT’s success is its focus on the student. TAIT is self-paced, deliverable anywhere with Web access, and adaptable to each student’s level of knowledge. Unlike the traditional, lecture-based model of course delivery, wherein students are passive recipients of information, TAIT enhances course delivery by actively engaging students in an experiential process of learning. Perhaps nowhere else is this quite as important as in the teaching of applications, in which real-world learning is integral to truly mastering the material.

<table>
<thead>
<tr>
<th>Test preparation</th>
<th>Traditional</th>
<th>Train &amp; Assess IT</th>
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<tbody>
<tr>
<td>for the semester</td>
<td>1.5 hours/test x 4 tests</td>
<td>6 hours</td>
</tr>
<tr>
<td>Preparing a key</td>
<td>1 hour/key x 4 tests</td>
<td>4 hours</td>
</tr>
<tr>
<td>Grading</td>
<td>10 minutes/student x 800 students</td>
<td>532 hours</td>
</tr>
<tr>
<td>Total</td>
<td>542 hours</td>
<td>1.5 hours</td>
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Table 1. Comparison of Time Spent on Testing and Grading at Amarillo College

Comparing traditional testing preparation and grading methods with the use of Train & Assess IT (TAIT). Data compiled by Beverly Fite.

Using TAIT affords Amarillo College a time savings of 540.5 hours—that’s 67.5 8-hour days. For each of Amarillo’s 12 faculty members, that’s a time savings of more than 5.5 days.


Prescriptive pretesting: TAIT can automatically suggest customized training plans based on each student’s skills assessment results.

Posttesting: TAIT links back to the testing module to integrate posttesting of skills, assuring that students fully comprehend each lesson before moving on.

Student tracking: Software tracks each student’s progress, offering comprehensive, customizable reports that can be exported into both Blackboard and WebCT gradebooks.

Student-focused features. Multimedia simulations mirror the actual application software, thereby reinforcing both visual and experiential learning styles. And phone, e-mail, and online support is available when students need it—including until midnight Eastern time on Sundays. But that’s not all. The following features further enhance students’ learning experience and retention.

- Answer with nearly any correct way of accomplishing a task
- Unlimited ability to practice hands-on
- Remediation for skills not mastered
- Interactive glossary accessible from any screen

A variety of administrative options. With TAIT, instructors make the rules. It’s all up to you.

- Add or delete student information, including uploading student files from registrar files, manually entering student information, or enabling self-registration.

- Customize course content by adding specific topics to those included in each lesson.
- Modify and create new tests: add your own questions or select from TAIT’s vast test bank.
- Time the test, allow multiple attempts to answer a question, and randomize questions.

But what may be TAIT’s most popular feature is its response to customer feedback. “Each version is better and better,” says Sally Baker of DeVry–Kansas City. “[Prentice Hall] definitely responds to my suggestions. I always find them in the next iteration—I really like that.” Recent upgrades include a substantial increase in prescriptive test questions, an increase in the number and type of reports available, faster-loading tests, and expanded user guides. (For an online demonstration of TAIT, visit http://www.prenhall.com/taitdemo.)

Using Train & Assess IT outside the Box

At the College of Charleston, initial pilots of Train & Assess IT were so successful that administrators opted to move beyond traditional implementation only in courses teaching Microsoft Word: they expanded its role and implemented it across the entire campus. By 2003, TAIT was being fully employed as a placement test for all incoming freshman—an average of 3,500 per year. Students are tested and learn their level of skill prior to meeting with an adviser. They learn what is expected of them in terms of IT fluency, and their advisers are able to more effectively place them in appropriate courses. “Using TAIT in this nontraditional way provides us with snapshots of student skills early in the semester,” says Lancie Affonso, Director of Information Technology Fluency. “We’re able to give students a lot more targeted learning in the same amount of time.”

Train & Assess IT Technical Support

Faculty users of Train & Assess IT can be confident that they’ll receive top-notch customer service for both their own technical questions and those of their students. “The tech support is wonderful,” says Gladys Swindler of Fort Hays State University. “It’s absolutely fantastic. I used TAIT’s competitors for years and can tell you firsthand that their technical support doesn’t come close to what Prentice Hall provides.” Instructors from around the country agree.
Prentice Hall has the best technical support staff. You get immediate assistance or a callback in usually less than five minutes. Most of our problems have been local problems so our IT people were in contact with tech support. They said they were very impressed with the help they got—you don’t hear that from IT staff very often.

—Dana Johnson
North Dakota State University, N.D.

When I call technical support, I’m not put on hold or told to call back later. I get a person right off the bat.

—Beverly Fite
Amarillo College, Tex.

The technical support at Prentice Hall is great. They bend over backwards to ensure I’m OK. Plus, they have hours to accommodate those of us in Mountain and Pacific time zones. They’re just great!

—Susan Fry
Boise State University, Idaho

I love the technical support. The students call and get an immediate answer, and I never know that they had a problem. I have also called tech support 10 minutes before a class, and I got an answer before my class started.

—Jeffrey Howard
Finger Lakes Community College, N.Y.

Your IT department will appreciate TAIT, too. Thanks to a unique collaboration between Prentice Hall and SAVVIS, an international hosting and network services corporation, TAIT’s uptime was better than 99.9 percent in 2005.

The TAIT Web site is nationally hosted on multiple enterprise-class Web and database servers at SAVVIS. This national hosting environment ensures no administrative or network concerns at the college level. What’s more, Prentice Hall’s exclusive agreement with SAVVIS means virtually unlimited delivery of Internet services, bandwidth, and processing capacity.

Students use a small program called the Partial Local Install (PLI) to access the Train & Assess IT Web site and content. Using the PLI provides an increase in speed for enhanced performance during tests and training—and ensures that student test results aren’t lost in the event of a crash. IT administrators will find that the installation is fast and simple, as will students installing the PLI on their home or other off-campus computers. And because the PLI does not require significant hard disk space, it won’t overutilize valuable resources in school computer labs—and can be run on most students’ home computers.

The Train & Assess IT Faculty Advocate Community

The traditional higher education model dictates that instructors teach courses without any interaction with other faculty. Who’s doing what and how it’s working are rarely addressed. TAIT’s faculty advocate program is changing that. Built upon the proven effectiveness of peer-to-peer advising, the program offers access to a nationwide community of faculty advocates—instructors experienced in teaching with Train & Assess IT—to advise and counsel faculty currently using TAIT and those interested in incorporating it into their courses.

Faculty advocates provide phone coaching and support, conduct campus demonstrations, and present TAIT at conferences and workshops. As power users of TAIT, faculty advocates also provide Prentice Hall with critical user information to steer upgrades and enhancements to the platform. “The other companies I’ve used never asked me what I needed,” says Sally Baker, senior professor at DeVry–Kansas City. “Prentice Hall does. And you can see it in the end product. Each version is better and better. There’s just no comparison.”

Advocates and Prentice Hall staff meet formally and informally throughout the year in person and via telephone, e-mail, and online demonstrations.

Measurable Results

A 2003 study by Hassan M. Selim concluded that the effectiveness of course-based Web sites relies on four factors: (1) the interactivity of the Web site such that...
students can control when and where they engage in the activities; (2) the ability to complete the course work quickly via animations and multimedia modules; (3) the ability to have course materials available anywhere at anytime, thereby increasing student-to-student and student-to-instructor interaction; and (4) the ability to increase students’ productivity and effectiveness. Train & Assess IT provides an easily implemented avenue to address all four of these factors.

Some of the most powerful examples of Train & Assess IT’s effectiveness in the classroom can be found in the surveys and assessments conducted by TAIT instructors themselves. One such assessment was authored by Sally Baker, senior professor at DeVry–Kansas City, and is entitled Teaching the Individual.5

Baker’s assessment details her rise to the unique challenge of using TAIT to raise COMP100 from a course with a withdrawal/fail (W/F) rate of 25–30 percent (and a reputation of being a “killer course”) to one with a W/F rate of 13.64 percent—the lowest rate among all DeVry campuses across the nation. In addition, she studied the effects of TAIT usage in COMP100 on grades and W/F rates in the next logical course, BIS150. Her journey started with a question: How can a professor educate a classroom of students with a largely disproportionate knowledge base?

COMP100 students are as varied as they come. Some don’t know what a computer is and have no idea what to do with Word, Excel, or Windows. Other students used the Internet, Windows, Word, and some Excel in high school or on a daily basis for work.

The first week of class follows a traditional layout. Students register with TAIT, and I tour them around the Web site. We go through the test and training module covering the Internet, thus allowing the students to get a feel for how they will be using TAIT in COMP100. I inform the students that in week 2 they will take a Word skills test and an Excel skills test. If they score 80 percent or better on the Word skills test, they can move on to Excel, with the Word skills test grade replacing the Word comprehensive exam grade. If they score 80 percent or better on both the Word and Excel skills tests, they have the following options: (1) convert the course to proficiency credit; (2) stay in the class, take the final exam the following week, and then be excused for the remainder of the term; or (3) stay in class and take the course in the conventional manner.

Students who score 80 percent or better on the Word skills test may complete all requirements for the course by week 8. If they do, they may be excused from the remaining weeks in the term. Students must have all modules, labs, and homework completed by the scheduled date for the Word and Excel comprehensive exams. If I observe a group of students struggling with the same problem, I lecture on the subject for that group.

Week 3 launches the course format for the rest of the term. Students are assigned homework and lab assignments from the textbook as well as modules.

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5 For more information, statistical analyses, and the course syllabus used in the protocol for Teaching the Individual, by Sally Baker, DeVry–Kansas City, download the study at http://faculty.kc.devry.edu/sbaker/Teach.pdf.

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I am no longer teaching a classroom of students, aiming to reach everyone by addressing the middle; I can educate individuals, student by student.

—Sally Baker
DeVry–Kansas City
from the TAIT Web site. Homework is due at the beginning of class. Students who score 100 percent on the TAIT pretest proceed to the posttest and complete the weekly lab assignment. Students who score less than 100 percent complete the training modules TAIT creates for them, which cover only the material they missed in the pretest. After completing the training modules, those students proceed to the posttest. If students are not satisfied with their score, they can go through the training modules as many times as desired and retake the posttest until they are satisfied. Those students will also complete an assigned lab for the week.

The faculty at DeVry–Kansas City has been teaching COMP100 using this protocol for approximately three years. In those three years their W/F rate has dropped from 25–30 percent to 13.64 percent (spring and summer 2005 terms). Kansas City’s average grade point average of COMP100 students is significantly higher than that of students on other campuses: 3.41 versus 2.54. According to feedback received in course evaluations, student satisfaction has increased as well. Students appreciate the focus on their deficient areas rather than on their areas of aptitude. Best of all, they report more confidence in their ability to work with the Word, Excel, and PowerPoint programs after completing the course.

Student data was retrieved from spring 2005 and summer 2005 semesters. Valid data covered 5,153 students for COMP100 and 2,714 students for BIS150 for these two semesters. Independent t-tests were run on the split file to determine if the difference in mean grades and W/F rates between Kansas City students using TAIT and the rest of the system was statistically significant for each course. They were:

- **Kansas City student grades (3.42, n = 221) were better than the rest of the system (2.54, n = 4164) by a statistically significant amount:** \( t = 11.479, df = 264.212, P < 0.001. \)

- **The Kansas City COMP100 W/F rate (13.7 percent) was significantly lower than the system mean (28.8 percent) by a statistically significant difference, with** \( t(23) = 7.62, P < 0.001. \)

- **The t-test also indicated the 22 percent W/F rate for BIS150 on the Kansas City campus was significantly lower than the system mean of 26 percent,** \( t(23) = 2.19, P = 0.04. \)

The study concludes, “This method of teaching COMP100 has reduced Kansas City’s withdraw/fail rate by 12–15 percent. We have changed our philosophy of teaching an entire class to teaching individuals within the class. We have found this method to be a better, more individualized way of teaching COMP100 than the traditional protocol was.”

**What Students Are Saying**

Students don’t just learn more about Microsoft Office with TAIT; they learn how to learn—and enjoy learning more. Students using TAIT at Diablo Valley College, a two-year community college in Pleasant Hill, California, say the following:

*I've completed all the assignments on the TAIT lesson plan for the semester. I thought the program was really helpful and explained the material perfectly.*

*I like the class!! It makes my life easy since I work 40 hours a week. The online exercises are great!! I learn more from doing things than just reading a book.*

*Since I'm an auditory or verbal student, the sound and pictures helped me a lot.*

*It is straightforward, and the tools for this class are simple to use and understand. . . . I really enjoy the online TAIT lessons. I am a visual learner, and it helps me to actually hear the lesson, watch it happen, and then walk me through the lessons.*

*I like that we are able to access the class at any time of day. I am never late to class, and I can do my homework during the downtime of my job.*

*This class is so much easier than my last computer science lab. I feel as if there is someone there to always help me on the assignments (via arrows and hints), and I don't have to wait for the teacher to help me. It's like I have my own teacher (or better yet, a tutor) helping me out.*
We interviewed five instructors from higher education institutions around the country. Each institution currently uses Train & Assess IT in a manner deemed most suitable to the institution and its students—in classrooms, computer labs, and online. Some use TAIT as the sole teaching tool, and some have integrated TAIT into comprehensive teaching and learning redesign projects. Others are offering TAIT as a student option in hybrid formats of lectures and online content.

Initial reasons for implementing TAIT differ among instructors. Many hoped to improve the quality of learning—by boosting pass rates and increasing retention; some sought a more effective testing tool. Some instructors needed help managing class sizes that had grown beyond capacity; still another needed a vehicle to accommodate a growing distance-learning population.

What all of the instructors have in common is dedication; they care deeply about their students and are willing to put in the time and the energy to ensure that their students succeed—not just in college but on a path of lifelong learning. Each instructor interviewed agreed that Train & Assess IT helps students do just that.

We successfully employed TAIT all last semester. At the end of the semester, my instructor evaluations were the highest they’ve been in 25 years—higher by a full 20 percent!

—Richard Howey
Ferris State University

Amarillo College
Beverly Fite, Professor

When you’re teaching upwards of 800 students in any one semester, every minute counts. That’s why when Beverly Fite, a professor at Amarillo College (AC), realized how much time she and her 12 faculty members were spending on test preparation and grading, she knew something had to change.

After a brief period of research and experimentation, Fite settled on TAIT. TAIT was implemented at AC in spring 2000 and has been in use in both distance learning and seated classes ever since. “The automated grading and test creation features save our instructors an incredible amount of time. At this point, I don’t think anyone here would accept not having TAIT,” says Fite. “No one would go back to the old methods—no one.” (To learn how much time TAIT saves Fite and her colleagues, see Table 1, page 2.)

Like most other instructors who’ve employed TAIT since its inception, Fite appreciates the constantly upgraded features. “Each year brings new upgrades,” she says. “This year, the test bank is much bigger; now I can create more than one test for each chapter. In addition, TAIT now produces keys for the questions. And at this point, TAIT has covered every possible way to obtain a solution.”

AC students benefit from TAIT as well. “The trainings really help students learn,” says Fite. “They offer students more information and more practice than they get with the exercises alone. When I look at the grade book, it’s very clear to me which students do the trainings and which students don’t.”

Fite has noticed a discernable shift in the population of online versus seated-classroom populations. “More and more students are utilizing the online format,” she says. “And with TAIT they can do so confidently. I’m not seeing any difference in grades between those who come to the classroom and those who work solely online.
The bottom line is that you want your students to know how to do functions and how to create an end result. Train & Assess IT gives them all the tools they need to learn what they need to know to do what they need to do.

—Beverly Fite
Amarillo College

Thanks to Prentice Hall’s TAIT and technology-based models like it, we’ll be able to scale with the growing population of distance students. I don’t know how we’d do it otherwise.”

Boise State University
Susan Fry, Special Lecturer

Like most applications instructors, Susan Fry, special lecturer at Boise State University (BSU), was in a tight spot: at 250 students or more, her sections were too large to test material mastery through project assignments. With no other viable alternatives on the horizon, she turned to multiple-choice tests. Neither she nor her students were satisfied.

When online courseware emerged on the scene, Fry was one of the first to jump on board. She eagerly implemented an early product but quickly became frustrated by repeated technical issues. Despite the difficulties, her appetite was keen. She embarked on a search for a more developed, more effective, more user-friendly teaching tool. In 2003 she found it: Prentice Hall’s TAIT.

Fry was originally attracted to TAIT’s testing capabilities—which today save her countless hours of grading and creating tests—and quickly discovered other features with equal appeal. “TAIT matches the textbook,” she says. “Students have a hard time if things look different. Mapping the software to the textbook keeps them on track and learning with me.”

Fry also appreciates TAIT’s online reporting feature, as well as the flexibility of the program. “It’s very real-world,” she says. “New instructors frequently are concerned that TAIT will recognize only one way to do a skill. But Prentice Hall has found and built in every possible way a student could address a problem.”

Fry isn’t the only one pleased by TAIT’s user-friendly features and flexible approach. Student comments are positive as well. “Students do the trainings and give us the feedback that the trainings help them learn the application better,” says Fry. “Students learn by doing, not by watching the instructor. They learn at their own pace—as fast or as measured as they wish. They can work at night, on the weekends, whenever. TAIT alleviates the pressure to keep up with others. Students recognize that and appreciate it.”

That same student-centered approach shifts the responsibility of learning onto students. “The onus is on them to make sure they know the material,” says Fry. “I offer them 8–10 hours of lab time a week, but because TAIT is so good, the students get most of the help they need on their own—online. Frankly, if they’ve done the work, they know what they need to know.” For students who may need more structure, due dates on the tutorials ensure that they pace themselves—no waiting until the last minute, no cramming.

Prentice Hall has done a great job of scripting text. The tutorials help the students; they don’t talk down to them or try to be cute.

—Susan Fry
Boise State University

Long gone are the days of ineffectual testing and repeated technical issues. With TAIT, Fry has finally found her reliable, user-friendly program. “All of our part-time people—even the most picky—love TAIT and the GO Series,” she says. “As administrator of TAIT, I set up standardized courses for the department. It saves the part-time instructors time, it saves BSU money, and most important, it does a really good job for the students. I appreciate all of it!”
DeVry–Kansas City
Sally Baker, Senior Professor

“There’s a holy grail that those of us who teach COMP100 are always seeking,” says Sally Baker, senior professor at DeVry–Kansas City. “We thought we’d found it about 10 years ago, but the program turned out to be a memory hog and couldn’t accommodate enough users at once. Later, we thought we came close with another product, but we couldn’t network it. It wasn’t Internet based, and it used too much of the college’s resources. Finally, we found TAIT.” It was exactly what they wanted.

In spring 2000 Baker piloted TAIT and found reliability, concise questions, and an overall solid program. DeVry–Kansas City has been using it every since. “I selected TAIT for the following reasons,” she says.

• **Reliability.** In the six years she’s been using TAIT, it has been down only a rough total of five hours.

• **Short learning curve.** Both students and instructors grasp the processes and environment quickly.

• **Pretest results that design training.** Students concentrate on problem areas rather than wasting time on concepts they already know.

• **Training modules that emulate text.** TAIT modules look like and use the same materials as the projects in course text.

• **Technical support.** Separate phone numbers for faculty and students and extended evening hours allow for specialized and convenient service.

• **Reporting features.** Convenient, choice of variables, no extraneous data

Today Kansas City’s classes are standardized, assessments are clearer, and the withdrawal/fail rate for COMP100 is the lowest in all of DeVry’s national system. All of the faculty are on board, and the feedback is positive. “The reports are good,” says Baker. “You can get them any which way you need via filters. The program is user-friendly, flexible, and clean. Fact is, it’s better than anything else out there.

“The students really like it, too,” adds Baker. “COMP100 is a foundation course, so all levels of students end up in it together. In the past, we noticed that the top-level students got bored and the lower-level students got lost. With TAIT, learning is individualized. The students say it’s like having their own personal teacher!” What’s more, Baker notes that students appreciate the learning they’re receiving. They’re more confident about their skills and about seeking jobs that challenge them.

Finger Lakes Community College
Jeffrey Howard, Associate Professor of Computing Sciences

Jeffrey Howard was no stranger to the online application training environment. By 2005, he and his colleagues at Finger Lakes Community College (FLCC) in Canandaigua, New York, had been using a competitor of TAIT for four years. During those years, he dreamed of the kind of program he really wanted. In 2004, he found it. He switched to Train & Assess IT (TAIT).

“I switched for my online classes,” says Howard. “Only TAIT training is book specific. For some reason, only TAIT has done this. And it’s so very important. It means I can assign training and chapter walk-throughs and be confident that they are specifically coordinated with what I’ve taught.”

With Train & Assess IT, learning is individualized—no more blanket lectures. Students are helped on a student-by-student basis. And they love it.

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As Howard and other faculty familiarized themselves with TAIT, they discovered more advantages. “TAIT questions are simple and clear,” says Howard. “There’s no need for students to spend time decoding the possible meaning of questions. It’s right there.”

Howard also notes that the online environment engenders positive shifts in student behavior. Contrary to what he sees in face-to-face lecture environments is the amount of participation and student interaction in which he sees students engage while online. “Students help each other more, and they interact more,” says Howard. “On their own time—whatever time works for them—they cruise the software and, as a result, learn more than just the assignments.”

Another tremendous benefit to students is the potential for immediate learning. When students have a question, they needn’t wait to see an instructor. They can quickly and easily find the answer on their own. “It makes them more self-reliant,” says Howard.

The flexibility inherent in TAIT’s design has been a real plus, too—so much so that FLCC has adopted TAIT as its testing software for a range of courses. General education tests—a SUNY-system requirement in all beginning classes for all disciplines—as well as assessment tests if students wish to test out of a class are all taken using TAIT software.

In addition to teaching seven classes at FLCC, Howard represents Prentice Hall at other colleges, where he trains their faculty on TAIT. He knows firsthand what it’s like for faculty to face a new software program. “After just one training session, at least 90 percent of the instructors are comfortable enough with the basic program to conduct a class and assign tests and trainings,” he says.

The results at FLCC speak for themselves. “No doubt about it,” says Howard, “since I’ve switched to TAIT, more students pass the class the first time. I see far less repeaters. In fact, about 98 percent of those taking the final test pass it. And because I use an actual certification-type test, they’re more likely to succeed after college as well.”

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**Raising the Bar: A Report on the Success of Train & Assess IT in Higher Education Microsoft Office Instruction**

**Howard**

**Finger Lakes Community College**

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**Gladys Swindler**

**Fort Hays State University**

**Instructor**

Gladys Swindler has taught Introduction to Computer Information Systems (CIS101) at Fort Hays State University (FHSU) since 1998—first as a lecture course, then in conjunction with lab time. Although the lab was beneficial, she knew there was a still better way to teach applications.

In 2003, after not-so-satisfying experimentation with a competitor for two years, Swindler discovered TAIT. The timing couldn’t have been better. It was during this time that the course experienced a board of regents review and standardization process that resulted in, among other changes, (1) redesign of the course to reach students with widely varied skill sets, (2) standardization of course content and assessments, (3) participation by all faculty, and (4) implementation of TAIT and its corresponding Prentice Hall textbooks. It’s a model that worked and is still in place today.

But if you know Swindler, you won’t be surprised to hear, “That wasn’t enough.” A longtime advocate of

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**Students expect this type of testing now. They’d be shocked to get a paper test!**

—Jeffrey Howard

Finger Lakes Community College

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**Those of us teaching applications needed a reliable way to evaluate students; paper tests don’t evaluate skills. We needed an application close to the application itself; we needed Train & Assess IT.**

—Jeffrey Howard

Finger Lakes Community College

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**Finger Lakes Community College**

Students expect this type of testing now. They’d be shocked to get a paper test!
pushing learning technology to best serve our nation’s students, she devised a research idea, which ultimately became her recently acclaimed dissertation, soon to be published in a number of journals.

For the purposes of her doctoral research, Swindler redesigned the redesign by using a combination of face-to-face and TAIT-based instruction and piloted it over the course of three semesters. The data revealed all of the positive outcomes she expected it would. In fact, she was so pleased with the results, she constructed another redesign. She now employs face-to-face instruction only in the beginning of each semester—to train students on the use of TAIT—and during assessments. For those students who choose it, opportunities remain for personal contact in the lab and during office hours.

In Swindler’s sections, all assessments are completed in the closed testing environment of a lab. Because the software automatically grades tests, there is no bias. The result represents a clean, honest, and true look at what students are accomplishing. What’s more, TAIT’s grading feature supports AQUIP goals and makes it easier to identify a learning outcome and tie it to an assessment.

According to Swindler, she, FHSU, and her students couldn’t be more pleased. She now has the time to teach an increased number of sections with an increased number of students. FHSU needn’t employ as many instructors or allocate larger classrooms to accommodate the increase in class sizes and thus is able to re-allocate those resources where they are more needed or can be more effectively utilized. Her students enjoy increased time flexibility and control, while benefiting from the same commitment to learning.

Students were polled after each of the three pilot semesters using TAIT and Swindler’s redesign. “Most were very happy not to have to sit in a classroom three times a week and listen to lectures and demonstrations of stuff they knew already,” says Swindler. “Those who needed extra help enjoyed the open lab time and opportunity for one-on-one assistance. They established relationships with the teaching assistants—and with me.” In the past, those with advanced skills became frustrated by the lack of challenging material and the necessity to wait for others less equipped than they. Conversely, those with fewer skills became frustrated at having to keep pace with those more advanced. With TAIT, students can access learning when they need it and at their own pace.

Swindler sees a bright future for quality distance education. “I don’t know of any college in the nation with a surplus of money,” says Swindler. “That is what’s so exciting about the increasing number of emerging technologies: they open the door for other disciplines to use TAIT’s model of computer-based instruction for effectively managing college resources while providing a better learning experience for more people.”

Swindler recognizes how fortunate she is to be part of a campus whose administration was supportive, open, and searching for a more meaningful instructional model. “Students don’t normally enjoy CIS101,” says Swindler, “but with the TAIT model, they embrace it as a way to take accountability and responsibility for their learning. We’re looking down the road at lifelong learning, at knowledge societies. These kids will be called upon to be responsible for their learning for the rest of their lives. TAIT helps them move closer to that.”
Conclusion

As the information age takes root, it simultaneously ushers in a time in which technological literacy is critical to an individual’s economic future, and the skills required to navigate that shift become increasingly more important. Ensuring that students—first time, returning, seated classroom, and online—have what it takes is a heady responsibility but one that needn’t be taken on alone. Individualized, Web-based, competency-focused programs like Prentice Hall’s Train & Assess IT are available and represent an effective means to ensure students graduate with the hands-on experience and proven skills to succeed within and beyond the classroom.

Since 2001, more than 360,000 students have learned more and retained more with the help of Train & Assess IT. Instructors select Train & Assess IT for a variety of reasons: to ameliorate overwhelming class sizes, to reverse the trend of rising drop/fail rates, and to address concerns about retention. Some implement the full range of Train & Assess IT features; others use only a few. No matter what the reason for using Train & Assess IT or the level of use, all testify to its dependable and easy-to-use simulations, its emphasis on skills mastery, and its unique ability to meet each student’s potential.

“TAIT makes it easier for teachers to teach, tutors to tutor, and students to learn,” says Richard Hewer of Ferris State University.

According to Phillip J. Bond, U.S. Under Secretary of Commerce for Technology from 2001 to 2005, one of the best indicators of future success in the coming economy is an expansion of our list of basic skills: reading, writing, arithmetic, and computing. To those in the industry, it comes as no surprise that Bond’s additional items constitute the five essential building blocks of Train & Assess IT courseware:

- Technology literacy
- Inventive thinking
- The ability for self-directed learning
- Communication and collaborative problem solving
- The skills to locate information, assess it for pertinence and accuracy, analyze it, synthesize it, and apply it to the job at hand

The response to Train & Assess IT speaks for itself. “TAIT widens the gap between those who are motivated and those who aren’t,” says Lancie Affonso of the College of Charleston. “It teaches them to be resourceful, to see the benefits of planning ahead, to foresee expectations, and to live up to them. Basically, it makes for more-responsible individuals. And that will help them their whole lives.”

To naysayers who still cling to outmoded models of higher education, this 1977 quote by Ken Olsen, president, chairman, and founder of Digital Equipment Corp., best expresses the need to constantly rethink our assumptions: “There is no reason anyone would want a computer in their home.” For those who are ready to think creatively, Prentice Hall is ready to provide a proven assessment and training system, technical support unmatched in the industry, and the broadest range of textbook solutions—when and where they are needed.

For more information, visit Train & Assess IT online at www.prenhall.com/tait.

For students, e-learning opens up the world. It gives them access to education, anytime, anywhere. It makes the world their campus.

—Rod Paige
U.S. Secretary of Education, 2001–2004