



# A better way to teach. A better way to learn.

## TLE will help take you and your students *Beyond the Crossroads*

Searching for an effective courseware solution that promotes active learning, addresses multiple learning styles, facilitates quantitative literacy, and compels students to take responsibility for their own learning? How about an effective means to help implement the AMATYC and NCTM Standards? Then **The Learning Equation (TLE)** is your perfect solution. **TLE** is Standards-based, interactive, multimedia courseware for concept-driven mathematics courses. Whether your course is taught on campus, off campus, or a combination of both, **TLE** lets you manage your course from any computer at any time, while students can log on and learn from any computer at any time.

**TLE** is designed to replace the traditional textbook and lecture, addressing all learning styles: visual, auditory, and kinesthetic. Using a *guided inquiry* approach, students construct their own understanding of concepts and build problem-solving skills in a highly interactive, easy-to-use environment. If you're interested in teaching a hybrid course by supplementing a traditional textbook with interactive, online learning, **TLE** also offers the flexibility to effectively implement such a course.

## From the AMATYC position paper on Distance Education in College Mathematics Courses in the First Two Years:

"The American Mathematical Association of Two-Year Colleges (AMATYC) recognizes that technology is readily available to most faculty and a rapidly growing number of students and that its use in mathematics education will continue to offer an ever-expanding window of opportunity to the college students of the 21st century." (<http://www.amatyc.org>)

As AMATYC has recognized, delivering mathematics courses in online formats is growing more popular as budgets shrink, enrollments in developmental mathematics courses grow, and technology improves. Educational research supports that using mathematics courseware like The Learning Equation (TLE) can remediate students in a cost-effective, efficient way that allows more students better access to individualized learning.

## Using courseware in remedial mathematics is proven to:

### Increase pass rates in developmental math.

- Pass rates for remedial courses increased from 65% to 70–80% after a California State University campus adopted math courseware.
- A California Polytechnic campus is able to remediate 96% of students in their developmental math courses, with a 75% pass rate for these courses, using computer-assisted course technology.
- A Midwestern community college improved pass rates from 45% to 70% after adopting math courseware.

### Boost retention rates compared to traditional courses.

- Retention rates at a Florida community college increased 11% to 20% in all mathematics course areas.

### Improve student access to developmental education, without putting more stress on already over-stretched resources.

- Adopting math courseware allowed a community college in Arizona to increase course enrollment per section from 35 to 100, without needing to increase the number of instructors.

### Prepare students as well, or better, for the next course.

- Using math courseware in remedial courses prepares students as well, or better, to achieve in subsequent traditional courses. A large community college in Florida found that 55% of students who had used courseware in a developmental course achieved a C or better in the next traditional course in Prealgebra compared with 43% for students who came from a traditional course.

### Give unexpected benefits.

- Math courseware can aid in English language development for students for whom English is a second language. Students have the ability to repeat lessons, and make the connection between text onscreen and the accompanying audio, which can improve language skills while students learn math.



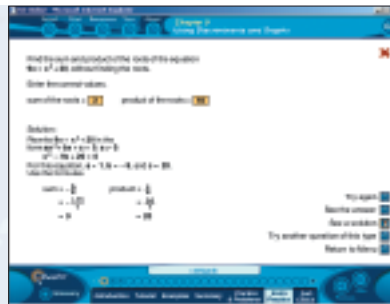
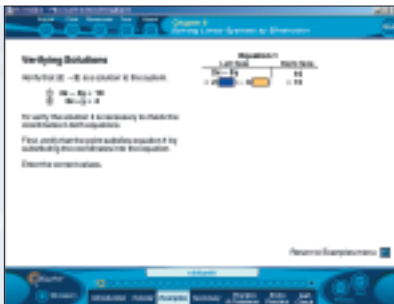
# A better way to engage your students

From the moment he or she starts **TLE**, the *guided inquiry* approach engages the student in constructing the concepts and skills needed to solve the problems presented. Each lesson starts with an application and the instruction progresses through the concepts and skills necessary for solving the problem. Using **TLE**, students are actively guided through the solution of the problem, constantly challenged to use what they have learned or to engage in activities to build new skills needed to solve the problem. Students using **TLE** frequently check their work using an alternate method because they understand there is more than one approach to most problems.

Students are given multiple representations to illustrate both process and products. Students use virtual physical models to construct mathematical concepts. This approach replaces mindless memorization of rules and drills devoid of meaningful context. Students are engaged in formulating the rules as the outcome of their concept constructions. According to the National Council of Teachers of Mathematics in *Principles and Standards for School Mathematics*, using multiple representations to illustrate concepts is necessary to establish and maintain mathematical understanding in the learner. **TLE's** main strength is in fulfilling this approach.

## A better way to diagnose students' skills

A diagnostic function allows you to assign **Diagnostic Pretests** to determine individual students' strengths and weaknesses. Upon completion of the diagnostic, a **Personalized Study Plan** is generated for the student with detailed guidance about the ideal course of study, based on his or her performance on the pretest. This allows each student to effectively focus his or her study time. And, because all results are automatically recorded in your grade book, the diagnostic gives you an at-a-glance overview of how your class is progressing and where you might need to spend extra time.



## A better way to support your students' learning



### vMentor™...live, online tutoring

Students also have FREE online access to a highly qualified **vMentor™** tutor for assistance with any topic in **TLE**. If students need extra help while working their problems, they can access **vMentor** —a service that provides live, online tutors who offer expert, one-on-one support. **vMentor** tutors can take a screen shot from **TLE** and lead students through the problem with voice-over and visual aids.

### Skillbuilder Videos

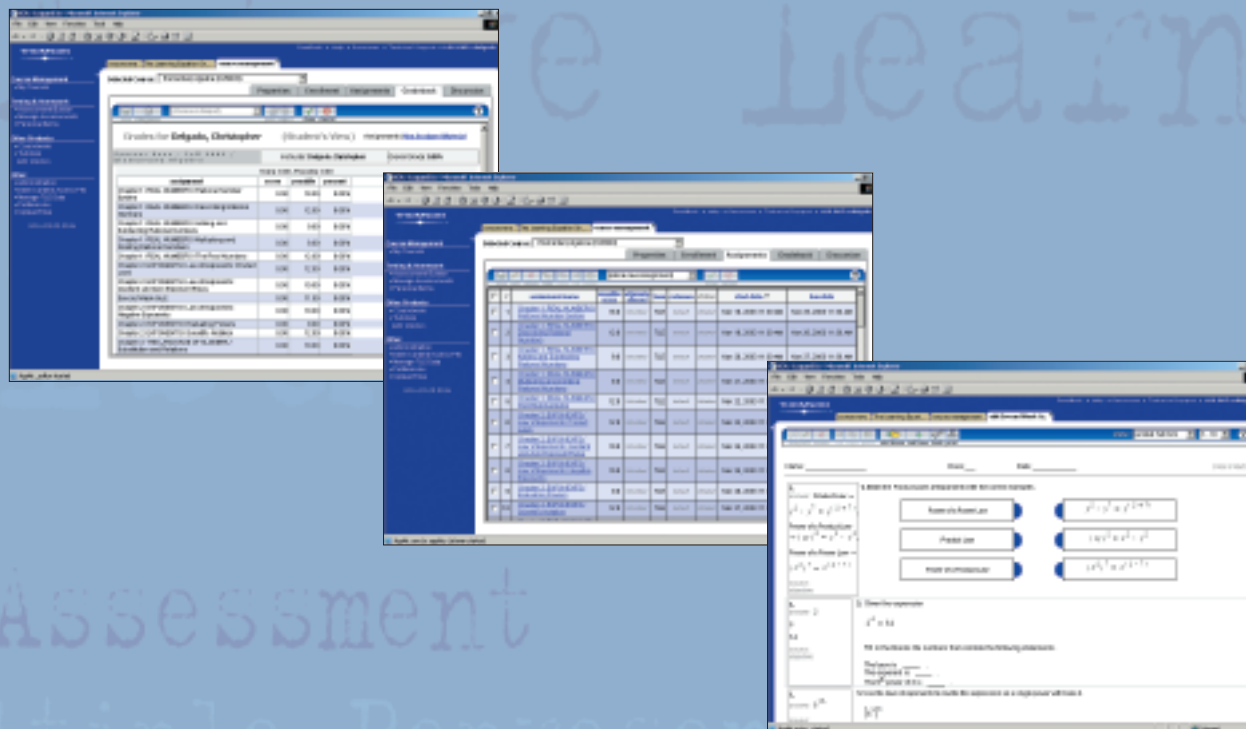
In addition, students can access interactive skill builder videos that further explain and explore key concepts and problems within **TLE**. Students also have the option of choosing English/Spanish closed caption translations to display along with the video instruction.

### A better way to manage your course

**TLE is delivered entirely online**, which eliminates virtually all compatibility and installation issues. Students log on to **TLE** via an access code packaged with their workbook. The browser-based course management system powering **TLE** gives you all the control and customization you need to run all your courses, whether they be computer-based using **TLE**, lecture-based using a Brooks/Cole textbook and tutorials, distance learning, or a combination of all three. **TLE** also offers complete course customization, because all content is delivered online, so instructors have the ability to order **TLE** content to match their course objectives. The course management system also provides seamless integration with Blackboard™ and WebCT™.

### A better way to assess student progress

All of the *Test Items* have been carefully correlated to match each **TLE** lesson. Create skills-focused practice sets with algorithmically generated, machine-graded, free-response mathematics, publish them online, and spend more class time on concepts, applications, and other “higher learning” activities. Publish quizzes and tests in print or online, with the ability to print  $n$  number of versions, so no two students will have the same assessment. Edit rosters, create customized curriculum, and view, edit, export, or print grade book reports. Communicate with a single student, a section of students, or an entire course. All this power is at your fingertips, and all you need is a computer connected to the Internet.



# Thomson Brooks/Cole offers everything you need to build a complete, dynamic mathematics course!



## JoinIn™ on TurningPoint®

Thomson Brooks/Cole is pleased to offer you **JoinIn** content for electronic response systems tailored to TLE. You can transform your classroom and assess your students' progress with instant in-class quizzes and polls. Our exclusive agreement to offer **TurningPoint**® software lets you pose questions and display students' answers seamlessly within the Microsoft® PowerPoint® slides of your own lecture, in conjunction with the "clicker" hardware of your choice. Enhance how your students interact with you, your lecture, and each other. Contact your local Thomson representative to learn more.

## College Success Factors Index



Offer students more than just success in their mathematics studies—offer them success with their entire college career. The **College**

**Success Factors Index** survey is an 80-statement survey based on eight important areas that have been proven to correlate with college success, including Responsibility vs. Control, Expectations, Wellness, College Involvement, and Time Management. Students can take the assessment in a password-protected area right from their own computer. The survey results show students the areas where they may need improvement, with links to information on how to improve in each area. For instructors, valuable information can be gleaned from the survey results, allowing you to help students identify the areas where they need to improve in order to achieve college success. Contact your Thomson representative for ordering information.

## An unsurpassed service website dedicated to TLE users!

### TLE service website

<http://tle.thomsonlearningconnections.com>

At Thomson, service is a commitment we take seriously. In addition to in-person and telephone support and training, we also offer a dedicated service, training, and support website where you can ask a question, browse a series of frequently asked questions, access additional resources, learn about upcoming web seminars and trainings, connect with other instructors using TLE, or connect directly with Thomson Support. At the site, you can also view pre-recorded web seminars from prominent Brooks/Cole mathematics authors on different ways to use TLE, such as teaching a hybrid course.



### General Tech Support Center

Phone: 1-800-423-0563

Hours: available M-F, 8:30 a.m. - 6:00 p.m.  
Eastern Time

Email: [tl.support@thomson.com](mailto:tl.support@thomson.com)

Online: <http://tle.thomsonlearningconnections.com>

Source Code: 6TPMA066