

EMPLOYMENT AND TRAINING ADMINISTRATION ADVISORY SYSTEM U.S. DEPARTMENT OF LABOR Washington, D.C. 20210	CLASSIFICATION TBL
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TO: STATE WORKFORCE AGENCIES
 STATE WORKFORCE ADMINISTRATORS
 STATE WORKFORCE LIAISONS
 NATIONAL APPRENTICESHIP SPONSORS
 STATE APPRENTICESHIP AGENCIES
 OFFICE OF APPRENTICESHIP STAFF
 NATIONAL SENIOR COMMUNITY SERVICE EMPLOYMENT
 PROGRAM GRANTEEES

FROM: EMILY STOVER DeROCCO /s/
 Assistant Secretary for Employment and Training

SUBJECT: Using Technology-Based Learning in the Workforce Investment System

1. **Purpose.** To encourage the use of technology-based learning (TBL) in order to increase access to learning opportunities for workforce investment system customers within existing statutory and regulatory flexibility of various Employment and Training Administration (ETA) programs. This guidance addresses real and perceived issues limiting greater use of TBL methods for training in the workforce investment system, including concerns about: training content, physical class attendance, time-in-training requirements, technological access issues, and accessibility and accommodations for individuals with disabilities.
2. **Reference.** “Technology-Based Learning Strategies,” Social Policy Research Associates, Inc. available at http://www.doleta.gov/reports/papers/TBL_Paper_FINAL.pdf; Training and Employment Guidance Letter (TEGL) 9-05, “Approval of Distance Learning Under the Trade Adjustment Assistance (TAA) Program;” Workforce Investment Act (Pub. L. 105-220 Workforce Investment Act (WIA) Sections 122 and 134).
3. **Technology-Based Learning Overview.** The use of TBL methods has increased in recent years due to the proliferation of computer connectivity and high speed Internet access. Some states and local workforce investment areas have embraced the use of TBL, which can be inexpensive and conveniently mobile, and have incorporated it into their training delivery options.
 - A. **Technology-Based Learning Definition.** TBL, also commonly known as e-learning, constitutes learning via electronic technology, including the Internet, intranet sites,

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satellite broadcasts, audio and video conferencing, Internet bulletin boards, chat rooms, Webcasts, simulations, gaming, and a variety of mobile options such as podcasting. TBL is an umbrella term, which also encompasses related terms, such as distance learning, on-line learning, Web-based learning (which only includes learning that occurs via the Internet), CDs and DVDs, and computer-based learning (by which we mean learning through the use of dedicated personal computers).

TBL can be synchronous (delivery occurs when instructors and learners meet at a specific time in a physical or virtual classroom), or it can be asynchronous (when the learning does not occur at a pre-specified time and may be self-paced). Blended learning combines aspects of synchronous and asynchronous, as well as virtual and face-to-face instruction. TBL is regarded as more effective when it is used in concert with, rather than as a replacement for, more traditional face-to-face instruction, in a style known as “blended learning.”¹

B. Advantages of Technology-Based Learning. TBL strategies can be a powerful tool in efforts to increase the capacity of the public workforce investment system to provide training and expand access to training because TBL is accessible, flexible, and provides for accountability. Advantages of TBL include:

- Many TBL options are available anytime and anywhere, and allow learners to access training and education when they need it, expanding opportunities for those unable to participate in traditional classroom-based instruction due to family or work demands, physical limitations, geographic location, or course offering schedules.
- TBL’s accessibility allows workers to access training where they need it by expanding the geographic reach of training, and it brings access to those with transportation barriers.
- TBL’s flexibility adapts to different learning styles by allowing learners to advance at their own pace and to repeat material for reinforcement.
- TBL is readily scalable to both large and small groups since it can accommodate larger numbers of learners at little extra cost and smaller groups of learners that otherwise would not be able to participate in traditional classroom training for lack of enrollment. In this way, TBL allows grantees, states, and local areas to creatively, efficiently, and effectively remove artificial barriers to training created solely because of the lack of capacity or unavailability of local courses.
- TBL can also hold providers and learners accountable for results by measuring learning content, skill advancement, and satisfaction, while potentially creating a portable on-line portfolio of learned content.

For these and other reasons, TBL has rapidly gained in popularity and in usage among government, industry, and educational institutions.

Private industry has also embraced TBL strategies, as companies seek to maintain a competitive edge in an increasingly global marketplace. As described in the Social Policy Research, Inc. report, “Technology-Based Learning Strategies,” IBM’s Web-based On-

¹ See Thomson, C. (2002). “Thompson Job Impact Study: The Next Generation of Corporate Learning”.

Demand Model embeds just-in-time learning with its regular workflow, and is accompanied by traditional classroom trainings. IBM requires new managers to complete “Basic Blue for Managers,” a program that features asynchronous on-line learning sessions with instructor-led learning labs. Southwest Airlines’ University for People is an extensive technology-based training program available to the airline’s 35,000 employees, and includes courses ranging from software training to customer service. Home Depot also uses TBL to maintain its employees’ skills, and has installed at least two computer kiosks in each store, where employees can access on-line asynchronous training modules on products and safety.

C. ETA’s Vision for Technology-Based Learning. ETA launched the TBL Initiative as an internal program in 2006 to encourage a national strategy for advancing the use of technology for training within the workforce investment system. The initiative seeks to increase the number of people trained in high growth jobs through the broadening of opportunities for skill and competency development, which is made available quickly and conveniently through the use of TBL methods.

ETA will be advancing a national TBL agenda for the public workforce investment system by:

- Disseminating research on TBL, including a report titled “Technology-Based Learning Strategies,” which summarizes current trends in TBL and its effective uses;²
- Sharing best practices on the use of technology-based learning through Webinars and TBL Regional Forums with the workforce investment system;
- Convening TBL experts to discuss 21st century applications of learning technologies to address workforce training needs, as well as to highlight the eminent and emerging technologies used for education and training;
- Instilling and encouraging the development of TBL methods in ETA’s competitive grant-funded programs, such as Community-Based Job Training Grants and the High Growth Job Training Initiative, among others;
- Incorporating TBL into the related technical instruction component of Registered Apprenticeship, such as in the Medical Transcription Industry Association’s apprenticeship program, which uses a complete virtual learning experience including on-line courses, distance mentoring, and on-the-job learning; and
- Investing in demonstrations to test innovative TBL methods, such as:
 - [Western Governors University](#), which is testing a distance and on-line learning competency-based curriculum intended to increase the number of qualified rural teachers, particularly in the hard-to-fill disciplines of math and science;
 - Colorado’s Department of Labor & Employment and Workforce Council’s Work, Education & Lifelong Learning Simulation Center, a hospital-based simulation center for clinical on-site training of students, faculty, nurses, physicians and healthcare professionals; and supports off-site datacast of training to remote areas of the state (visit www.e-Colorado.org, click Announcements/WELLS Center DVD);

² See http://www.doleta.gov/reports/papers/TBL_Paper_FINAL.pdf.

- Riverland Community College's simulation model for nurses, radiographers, lab technicians and other allied health professionals, bolstered by online distance learning for sharing curriculum with colleges in the region, including the 32 institutions in the Minnesota State Colleges and Universities system of which Riverland is a member;
- Digital Learning Group's "Words for Work" -- a Web-based multimedia training and job placement program for Hispanic adults with limited English, used to develop work-based English skills for the health care and construction industries in the Baltimore-Annapolis area (visit www.wordsforwork.org); and
- *Sed de Saber*, a Limited English Proficiency and Hispanic Worker Initiative project designed to provide work-based English skills through a multi-sensory laptop application, known as the Quantum LeapPad (visit www.seddesaber.com).

4. Legal Authority to Use TBL. ETA is concerned about the relatively low level of overall training enrollments in the system nationwide, and encourages states to develop new approaches to allow more individuals to access training, and to ease access to training for individuals who cannot attend traditional classroom courses. TBL may offer the solution to these problems. We interpret the funding authorities for the workforce investment system to permit the use of TBL methods or distance learning in providing training options.

A. Workforce Investment Act. The WIA and ETA's policies and guidelines do not prohibit the use of technology to provide training. In fact, WIA's guiding principles for the development of workforce investment programs encourage local flexibility and innovation for providing training options.

Several sections of WIA address allowable training activities. WIA Section 129(c)(2) authorizes the use of WIA funds to provide appropriate workforce investment youth activities, WIA Section 134(d)(4)(D) authorizes the use of WIA funds to provide a variety of training activities for adults and dislocated workers, WIA Section 166(d)(2) authorizes Indian and Native American activities, and WIA Section 167(d) authorizes Migrant and Seasonal Farmworker activities. Department of Labor regulations, at 20 CFR 663.300, make clear the types of training in addition to those listed in WIA Section 134 that are authorized. TBL approaches may be appropriate for many of the activities authorized under these sections of WIA.

WIA Section 122 specifies requirements for determining the eligibility of training providers. Eligible training providers may include post-secondary educational institutions eligible for Federal funds under the Higher Education Act that provide an associate or baccalaureate degree, or a certificate; entities carrying out apprenticeship programs under the National Apprenticeship Act; or other public or private providers of training services. Neither the Federal WIA statute nor its regulations restrict training providers that meet the above criteria from utilizing TBL methods.

WIA established the eligible training provider list (ETPL) to ensure that individuals seeking training have access to a broad array of training options. In keeping with the intent to maximize customer choice among training providers, ETA encourages states and local areas to review their ETPL criteria to make certain that the use of TBL methods does

not preclude an otherwise qualified training provider from eligibility. ETA also suggests that states consider including e-learning providers on the ETPL, as appropriate, to ensure the broadest array of available resources.

States should also consider using TBL approaches for such WIA intensive services as limited English proficiency classes, remedial skills training, or other appropriate activities. Further, states and local areas should consider the use of TBL when using discretionary funds to advance innovative training options, such as performance incentive funds under WIA Section 503(a) and statewide workforce investment funds under WIA Section 128(a).

- B. Trade Act.** TBL approaches can be integrated in training activities delivered under the Trade Act. TEGL 9-05, “Approval of Distance Learning Under the Trade Adjustment Assistance (TAA) Program” simplifies the approval of distance learning for TAA participants in order to broaden access to distance learning and on-line learning.
- C. Older Americans Act.** The Senior Community Service Employment Program was reauthorized under the 2006 Older Americans Act (OAA) Amendments. OAA Section 502(c)(6)(A)(ii) authorizes training “which may be provided on the job, in a classroom setting, or pursuant to other appropriate arrangements.” ETA interprets this section of the law to allow technology-based learning instruction.
- D. National Apprenticeship Act.** The National Apprenticeship Act (NAA) (also known as the Fitzgerald Act), enacted in 1937, authorizes the Federal government, in cooperation with the states, to oversee the nation’s apprenticeship system. NAA regulations at 29 CFR 29.5(b)(4) describe the types of related instruction to be included in Registered Apprenticeship program standards, and allow instruction through the classroom, correspondence courses, or self-study. There are no Federal restrictions on the use of technology and TBL in apprenticeship instruction, and self-study courses may be particularly appropriate for TBL. Individual Registered Apprenticeship sponsors further specify the types of training required and allowable.
- E. Social Security Act.** Section 303(j)(1) of the Social Security Act provides that certain unemployment insurance (UI) claimants be referred to available reemployment services. Under Section 3304(a)(8) of the Federal Unemployment Tax Act, individual states are responsible for determining what constitutes approved training. A state UI program may determine that training approved under WIA meets the requirements for approved training under state UI law. To the extent that approved training providers include TBL in their curricula, there is no Federal law or regulation that such training may not be included in the state UI program’s approved training.

When used appropriately, TBL provides a valuable tool for expanding options for training and other activities. The rest of this TEGL provides information and resources for developing high quality TBL opportunities to meet the needs of the workforce investment system and the workers and job seekers it serves.

5. Addressing Technology-Based Learning Concerns. Some of the concerns about incorporating TBL learning strategies of which ETA is aware include:

- A) ensuring the quality of TBL training content;
- B) measuring participant attendance without classroom time;
- C) establishing time-in-training or hours-in-training requirements;
- D) supporting digital literacy and access to technology for all trainees; and
- E) ensuring TBL offerings are accessible to individuals with disabilities.

This guidance intends to provide information and resources, suggesting how states and local areas might address each of these concerns.

A. Quality of TBL Training Content. ETA encourages states to consider including on their ETPLs those providers that use TBL methods and to establish guidelines for such providers. When determining how best to ensure the quality of on-line training, ETA encourages states to review the TBL components of accreditation processes, which may contain useful standards that can be incorporated into ETPL guidelines. When institutions are reviewed for accreditation, their TBL offerings are also scrutinized. According to the Council for Higher Education Accreditation Institute for Research and Study of Accreditation and Quality Assurance, the eight regional accrediting organizations have adopted a common standard for reviewing distance learning, and the nine national accrediting organizations have each developed their own standards for reviewing and accrediting distance learning.³

Accredited higher education institutions that were Higher Education Act-eligible were generally automatically eligible as training providers at the on-set of the WIA system, and many are still a part of the state ETPLs. WIA Sections 122(a)(2)(A)(i) and 122(a)(2)(B) allow states and local workforce investment areas to determine eligible certain training providers eligible for funding under the Higher Education Act or approved under the National Apprenticeship Act.

The U.S. Department of Education, Office of Adult and Vocational Education can also assist states in identifying additional resources and guidance in evaluating distance learning education. See <http://www.ed.gov/about/offices/list/ovae/index.html> and <http://www.ed.gov/about/offices/list/ovae/pi/AdultEd/tdlearn.html>.

An additional resource for information on ensuring the quality of TBL training is the Sloan Consortium. The Alfred P. Sloan Foundation in New York has made a commitment to technology-based learning as a means of increasing the availability of training options across the country. The Sloan Foundation brings together a consortium of institutions and colleges using TBL, known as the Sloan Consortium. The consortium standardized a Quality Framework of criteria for accrediting technology-based education; these criteria are called the “pillars of quality,” or key evaluation principles to ensure the quality and effectiveness of on-line education. Together, the pillars create a valuable

³ See Council for Higher Education Accreditation (2002). “Accreditation and Assuring Quality in Distance Learning.” Available at http://www.chea.org/pdf/mono_1_accred_distance_02.pdf.

guide for reviewing the distance learning and TBL options used by educators, trainers, and others involved in curriculum development.

The hallmarks of the Sloan quality pillars are:

- 1) *Learning Effectiveness*: The provider demonstrates that the quality of on-line learning is comparable to the quality of “traditional” programs.
- 2) *Cost Effectiveness and Institutional Commitment*: Institutions continuously improve services while reducing cost.
- 3) *Access*: All learners who wish to learn on-line have the opportunity and can achieve success.
- 4) *Faculty Satisfaction*: Faculty achieves success with teaching on-line, citing appreciation and happiness.
- 5) *Student Satisfaction*: Students are successful in learning on-line and are pleased with their experience.⁴

These pillars can benefit the workforce investment system as well. States may want to consider incorporating aspects of the Sloan quality pillars in established state ETPLE review criteria to evaluate potential TBL offerings as clearly and objectively as those offered by more traditional providers.

B. Physical Presence and Attendance. Some states and programs have established requirements that only allow workforce investment system funds to be used for training when attendance can be tracked by observing the trainee in a traditional classroom. Where they exist, these requirements are state or local requirements, not Federal, and make distance learning or training delivered via technology very difficult. Since the proliferation of the Internet, learning options have greatly expanded and will continue to do so. ETA encourages states to consider alternative means of verifying attendance to allow greater use of technology-based training.

There are several ways to capture attendance and participation in TBL environments. Learning management systems (LMS) usually automatically track participation data each time a student logs on, such as the number of times a student accessed an on-line course, the length of time spent on a particular topic, errors and corrections made, and the results from standardized assessments in an on-line environment. These records can be monitored by teaching staff at a distance.⁵

Instructors can also use “low-tech” approaches such as roll calls at in-person or synchronous on-line meetings, periodic conference sessions, and the monitoring of e-mail activity. Instructors can also assess the quality of learner engagement through discussions, collaborative exercises, and independent and group assignments. Whether

⁴ See <http://www.sloan-c.org/publications/books/qualityframework.pdf> for more information on the Sloan Quality Framework and quality pillars.

⁵ For further information on tracking student attendance and progress, see Meyen, Aust, and Isaacson (2002). “Assessing and Monitoring Student Progress in E-Learning Personnel Preparation Environment.” University of Kansas e-Learning Design Lab. Available at <http://elearn.design.org/papers/AssessingMonitoringStudentProgress.pdf>.

synchronous or asynchronous, classroom or technology-based, learning options must meet ETPL standards and result in a degree or certification.

ETA also encourages states to take advantage of learning institution accreditation, which may contain useful standards that can be incorporated into ETPL guidelines. As previously stated, accreditation of an educational institution includes a review of TBL offerings. This review usually includes a review of student identification measures to award course credits to students who have completed the assigned work themselves. For instance, accreditation frequently requires that on-line transmissions be over a secure system with technological limitations on access to the class or program such as a PIN number, password, smartcard, or other means of identification of the eligible student.

Many learning institutions now require a blended approach with initial face-to-face orientation between cohorts and instructors, as well as occasional proctored examinations and writing samples submitted for comparison and authentication. In most mature programs, courses are designed to include interaction between instructors and their students.

- C. Adequate Hours of Instruction.** Some states require that learners complete a certain number of hours of instruction in order to receive workforce system support. Similarly, all Registered Apprenticeship programs require Registered Apprentices to complete a specified number of hours of instruction in order to receive a certificate of completion of Registered Apprenticeship and/or a certificate of completion of training. These numbers of hours are dictated by industry.

However, as more industries move toward competency-based training, TBL advancements have provided organizations the opportunity to evaluate skill attainment rather than calculate time spent in the classroom.⁶ This approach allows organizations the ability to certify those individuals who have previous experience or who gain knowledge of a particular task at a faster rate than their peers. In the Registered Apprenticeship system, this process translates into program sponsors awarding apprentices credit for previous experience, thereby shortening the period of time that individual apprentices must spend before being awarded their certificate of completion of Registered Apprenticeship and/or a certificate of completion of training.

TBL tools can be used to complement classroom learning, rather than detracting from hours spent in the classroom. Technology-based learning tools, such as the CD-ROM and the Internet, serve as ideal complements to classroom settings and provide a blended learning approach for students. TBL tools allow for various learning strategies, including the use of auditory and visual strategies to reinforce key points, and allow learners to advance at their own pace, taking as many or as few hours as needed.

- D. Digital Literacy and Access to Technology.** Some states are concerned that TBL is not an effective tool for individuals who lack “digital” or computer literacy, or who lack access to technology. ETA is aware that not all individuals who need training are digitally

⁶ The requirement for hours in training can be associated with certain types of training such as that required for apprenticeships.

literate with easy access to technology; however, TBL is increasingly common and training offerings are expected to only become more technologically oriented. To ensure all individuals who need training are able to take advantage of training in any form, ETA recommends that the workforce investment system provide basic information technology skills to all individuals, including those with limited familiarity with technology. The Department of Labor has funded demonstration projects (such as the New Jersey On-line Learning demonstration⁷) in recent years which have shown that when provided technical assistance and an incentive to learn, individuals with little previous experience in technology can master the use of computers, on-line learning technology, and the Internet.

Further, regular access to a computer lab is not a prerequisite for e-learning. Portable technology, such as laptops, allows individuals who cannot regularly attend a computer lab or classroom session (such as migrant workers, workers who travel often, and individuals displaced due to natural disaster) to benefit from TBL.

E. Accessibility and Accommodation for Individuals with Disabilities. According to the U.S. Census Bureau, 20 percent of men and 18 percent of women ages 16 to 64 have disabilities; 43 percent of women and 40 percent of men 65 or older have disabilities. Technology can be an effective vehicle to liberate individuals with physical and developmental challenges. Advances in assistive and adaptive devices for the vision, hearing, and motor impaired have revolutionized the way individuals learn and work. With these advances, disabled individuals no longer have to commute to classrooms, or interface with students and instructors in the traditional way.

In 1998, Congress revised Section 508 of the Rehabilitation Act of 1973 (29 U.S.C. 794(d); (36 CFR Part 1194)) to ensure that accessibility for people with disabilities was incorporated into all electronic and information technology provided by the Federal government. These came to be commonly referred to as the “508 Compliance” requirements.

The e-Training Best Practices Committee, formed by the Office of Management and Budget, has provided guidance to individuals who have the responsibility of implementing e-learning, which includes a discussion on how to effectively procure solutions that meet the legal requirements of Section 508.⁸ The guidelines in the paper can be used as a model for Federally-funded entities, such as colleges and universities, research institutions, and state and local workforce agencies that are interested in establishing e-learning endeavors and complying with Section 508 standards.⁹

6. Resources.

A. Implementing TBL.

- Sloan Consortium – The Sloan Consortium aims to help organizations improve the quality and scale of their on-line learning, hosts discussions of and references to

⁷ See <http://www.dol.gov/wb/programs/distance.htm>.

⁸ See <http://www.access-board.gov/sec508/e-learning.htm>.

⁹ For more information on accessibility for individuals with disabilities, see <http://www.section508.gov>, <http://www.va.gov/oit/ea/Section508/training.asp>, and <http://www.accesslearning.net>.

effective practices, and has established quality pillars for evaluating on-line learning. See <http://www.sloan-c.org>.

- Advanced Distributed Learning (ADL) Co-Lab – The ADL Co-Lab, established by the Department of Defense, employs a structured, adaptive, collaborative effort between the public and private sectors to develop the standards, tools, and learning content for the learning environment of the future. See <http://www.adlnet.gov/about/index.aspx>.
- Workforce Connections - This free set of Web-based tools empowers non-technical individuals to easily create, acquire, share, and control content in real-time. See <http://www.workforceconnections.dol.gov>.

B. TBL Research.

- Koller, Harvey, and Magnotta (2006). “Technology-Based Learning,” Social Policy Research Associates, Inc. Available at http://www.doleta.gov/reports/papers/TBL_Paper_FINAL.pdf.
- Allen and Seaman (2006). “Making the Grade: On-line Education in the United States, 2006.” Sloan Foundation. Available at <http://www.sloan-c.org/publications/survey/survey06.asp>.
- Commission on Technology and Adult Learning (2001). “A Vision of E-Learning for America’s Workforce: Report of the Commission on Technology and Adult Learning.” American Society for Training and Development and National Governor’s Association Center for Best Practices. Available at <http://www.nga.org/Files/pdf/ELEARNINGREPORT.pdf>.
- McCain, Mary (2002). “Leapfrogging Over the Status Quo: E-Learning and the Challenge of Adult Literacy.” Jobs for the Future. Available at <http://www.jff.org/~jff/Documents/Elearning.pdf>.

7. **Inquiries.** Questions on this guidance should be directed to your ETA Regional Office.