ANSI/ASSP Z490.2-2019

Accepted Practices for E-Learning in Safety, Health and Environmental Training

AMERICAN SOCIETY OF SAFETY PROFESSIONALS

Approved American National Standard
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ANSI/ASSP Z490.2 – 2019

American National Standard

Accepted Practices for E-Learning in Safety, Health and Environmental Training

Secretariat

American Society of Safety Professionals
520 N. Northwest Highway
Park Ridge, Illinois 60068

Approved September 9, 2019

American National Standards Institute

American National Standard

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Foreword (This Foreword is not a part of American National Standard Z490.2 – 2019.)

Training is an important element of an effective overall safety, health and environmental program. The Z490 standard grew out of the recognized need for improvement in safety, health and environmental training. Effective, quality training is required to ensure that workers and safety, health and environmental professionals have the knowledge, skills and attitudes necessary to protect themselves and others in the workplace.

The ANSI/ASSP Z490.1, *Criteria for Accepted Practices in Safety, Health and Environmental Training*, was first approved in July 2001, with revisions approved in May 2009 and December 2015. The standard covers core facets of training, including training analysis, design, development, delivery, evaluation and management of training and training programs. During the 2015 revision process, the Z490 committee recognized the increasing use of electronic learning (e-learning) for delivering, evaluating and managing training. Given the unique considerations of electronic learning, the Z490.2 subcommittee was formed to develop criteria specific to e-learning. Thus, the ANSI/ASSP Z490.2 standard supports the concepts of ANSI/ASSP Z490.1 and is arranged to complement and enhance the concepts discussed in that standard.

The benefits of e-learning can include cost savings, time savings, increased outreach potential, training in multiple locations from a central location, consistency in messaging and more. However, in order to develop a conducive environment for effective adult learning in this digital age and to capitalize on digital technologies, instructional designers, trainers, facilitators and learners must be aware of the unique challenges and limitations that must be taken into account in the design of instruction, the mode of delivery and dissemination, and instructional and teaching practices employed in electronic learning.

The user should recognize that not all information presented in an electronic format is training. Training, as used in this standard, is any activity designed with learning objectives and methods to engage and involve participants in an interactive process in gaining, improving or retaining specified knowledge, skills and/or attitudes.

Industry employers may use this standard to assess the services of external e-learning providers or to audit or improve their own corporate e-learning programs. Training providers may use the standard to assess and improve their e-learning services. This standard may also be used as a basis for development and management of electronic training and training programs, with the annexes and references providing additional information and detail.

Governmental regulations specify mandatory requirements for various safety, health and environmental training. Likewise, the training program may be embedded in a larger safety, human resources or other organizational structure. As a broad-based voluntary consensus standard, this document applies to both the regulations and public and private organizational policies. However, compliance with this standard does not ensure compliance with governmental regulations or organizational policies, or vice versa.

Normative Requirements: This standard uses the single column format common to many international standards. The normative requirements appear aligned to the left margin. To meet the requirements of this standard, machinery, equipment and process suppliers and users must conform to these normative requirements. These requirements typically use the verb “shall.”

> *NOTE: The informative or explanatory notes in this standard appear indented, in italics, in a reduced font size, which is an effort to provide a visual signal to the reader that this is informative note, not normative text, and is not to be considered part of the requirements of this standard; this text is advisory in nature only. The suppliers and users are not required to conform to the informative note. The informative note is presented in this manner in an attempt to enhance readability and to provide explanation or guidance to the sections they follow.*

Revisions: The Z490 Committee welcomes proposals for revisions to this standard. Revisions are made to the standard periodically (usually five years from the date of the standard) to incorporate changes that appear necessary or desirable, as demonstrated by experience gained from the application of the standard. Proposals should be as specific as possible, citing the relevant section number(s), the

proposed wording and the reason for the proposal. Pertinent documentation would enable the Z490 Committee to process the changes in a more-timely manner.

Interpretations: Upon a request in writing to the Secretariat, the Z490 Committee will render an interpretation of any requirement of the standard. The request for interpretation should be clear, citing the relevant section number(s) and phrased as a request for a clarification of a specific requirement. Oral interpretations are not provided.

No one but the Z490 Committee (through the Z490 Secretariat) is authorized to provide any interpretation of this standard.

Approval: Neither the Z490 Committee nor American National Standards Institute (ANSI) approves, certifies, rates or endorses any item, construction, proprietary device or activity.

Appendices: Appendices are included in most standards to provide the user with additional information related to the subject of the standard. Appendices are not part of the approved standard.

Standard Approval: This standard was developed and approved for submittal to ANSI by the American National Standards Committee on Safety, Health and Environmental Training, Z490. Approval of the standard does not necessarily imply (nor is it required) that all Committee members voted for its approval. At the time ANSI approved this standard, the Z490 Committee had the following members:

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AMERICAN NATIONAL STANDARD Z490.2
ACCEPTED PRACTICES FOR E-LEARNING IN SAFETY, HEALTH AND ENVIRONMENTAL TRAINING

1. Scope, Purpose and Application

1.1 Scope

This standard establishes criteria for electronic learning (hereafter referred to as e-learning) as part of safety, health and environmental training programs, including program management, development, delivery, evaluation and documentation.

This standard is intended to complement ANSI/ASSP Z490.1, *Criteria for Accepted Practices in Safety, Health and Environmental Training*. As such, all criteria in ANSI/ASSP Z490.1 apply. Only criteria unique to or particularly relevant to e-learning are presented in this standard.

1.2 Purpose

The purpose of this standard is to provide accepted practices for e-learning in safety, health and environmental training programs.

1.3 Application

This standard is recommended for providers, designers, users and auditors of safety, health and environmental training with e-learning components.

1.3.1 If any of the provisions of this standard are not applicable, the other requirements of the standard shall still apply.

1.3.2 This standard applies to all electronic safety, health or environmental training, whether separate or a part of other training.

2. Definitions

Definitions included in ANSI/ASSP Z490.1 apply. This section provides definitions relevant to this standard on e-learning.

> *NOTE: See Annex B for discussion and definitions of education terms. See Annex C for discussion and definitions of e-learning approaches and methods.*

Bandwidth. Amount of data that can be transmitted in a fixed amount of time.

Blended Learning Solution. A combination of multiple training delivery methods (e.g., face-to-face training, e-learning, etc.).

Electronic Learning (e-learning). A method of delivering training on a computer or other electronic device using the internet or a local computer network (intranet). E-learning typically involves a delivery platform and training content. E-learning is also referred to as computer-based training (CBT), online training or virtual training.

> *NOTES: Different forms of e-learning can include web pages, live or recorded webinars, e-learning courses and others. See Annex C for description of various e-learning approaches and methods for learner engagement.*
>
> *Devices can include desktop computers, laptop computers, tablets, phablets, phones, smart watches and other wearables and other devices.*

E-learning Component. A part or portion of a course that is delivered via computer or other electronic device.