
**Information technology — Quality
for learning, education and training
— Fundamentals and reference
framework**

*Technologies de l'information — Qualité pour l'apprentissage,
l'éducation et la formation — Principes fondamentaux et cadre de
référence*





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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee ISO/IEC JTC 1, *Information technology*, SC 36, *Information technology for learning, education and training*.

ISO/IEC 40180 cancels and replaces ISO/IEC 19796-1:2005 (initially published under the general title *Information technology — Learning, education and training — Quality management, assurance and metrics*) which has been technically revised.

Introduction

This document provides the fundamentals and the reference framework for quality assurance, quality management and quality improvement in IT-enhanced learning, education and training (called E-Learning). This document primarily consists of the Quality Reference Framework (QRF) for E-Learning. It is a framework to describe, compare and analyse approaches for quality management and quality assurance. These approaches can be mapped to QRF. Therefore, the framework is not a quality management model or guiding management system – it is a framework for the description of quality approaches. It serves to compare different existing standards and to harmonize these towards a common quality model. For a better understanding of the QRF, several annexes show samples of its usage – the annexes are based on the German DIN PAS 1032-1 (Annex B), the French code of practice in E-Learning ([Annex C](#)); and an example of how it can be mapped to other quality systems, such as the Chinese E-Learning Technology Standards (CELTS) ([Annex D](#)).

This document provides the fundamentals for the implementation and adaptation of the general quality standards within the fields of E-Learning, education and training. This includes specific vocabulary as well as the Quality Reference Framework (QRF) with its Process Model and Descriptive Model. It provides sector specific information that may be used to support the better integration of mandatory and voluntary quality approaches at the local, regional, national and transnational levels. Through the application of this document, organizations may continue to improve the quality of their processes, products, services and solutions within the fields of learning, education and training.

This document was carefully developed and revised over a period of more than 10 years to ensure compatibility with ISO 9001 and ISO 14001 standards and facilitate their use by organizations that wish to introduce and improve quality assurance, quality management and quality improvement in learning, education and training together with the implementation of both environmental and quality management systems to benefit themselves and their customers and stakeholders.

Overview of ISO/IEC 40180:

- [Clause 6](#) describes the process-oriented Quality Reference Framework (QRF) for the comparison and analysis of quality approaches.
- [Annex A](#) (informative) provides an introduction and description of the QRF and illustrates its relation to the PDCA Cycle and the IDEAL Reference Model. It further provides answers on key questions in order to provide a clearer understanding of the QRF concept and its use.”
- [Annex B](#) (informative) shows the full German process model (DIN PAS 1032-1) as an example of how the basic model can be extended.
- [Annex C](#) (informative) describes the use of the model describing the “French Code of Practice in E-Learning” (AFNOR Z 76-001) as a second sample of the use of this document.
- [Annex D](#) (informative) describes how other quality approaches can be mapped to QRF. Specifically, the Chinese Model CELTSC is used as an example of the mapping procedure.
- [Annex E](#) (informative) describes the use of the model for specific quality objectives such as metadata quality.

Information technology — Quality for learning, education and training — Fundamentals and reference framework

1 Scope

This document provides the fundamentals and the reference framework for quality assurance, quality management and quality improvement in IT-enhanced learning, education and training (called E-Learning). It consists mainly of the Quality Reference Framework (QRF) for E-Learning, which is a common and generic framework to describe, specify and understand critical properties, characteristics and metrics of quality. The QRF combines an elaborated and extensive process model with a descriptive model for the processes. This document harmonizes existing approaches, concepts, specifications, terms and definitions related to quality for E-Learning, education and training.

2 Normative references

There are no normative references in this document.