Quality Development and Standards in e-Learning
International ASEM Lifelong Learning Conference in Bangkok

Christian M. Stracke (University of Duisburg-Essen, Germany)
Convener ISO/IEC JTC1 SC36/WG5 and Vice-Chair CEN/TC 353
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Christian M. Stracke
About the speaker

- Assistant Prof., University of Duisburg-Essen <www.wip.uni-due.de>
- Adjunct Prof., Korea National Open University <www.knou.ac.kr>
- Convener of the international ISO standardization committee SC36 WG5 "Quality Assurance and Descriptive Frameworks" <www.iso.org/jtc1/sc36>
- Vice-Chair of the European standardization committee CEN/TC 353 "IT for Learning, Education, and Training" <www.cen.eu/isss/TC_353>
- Co-Founder of D-ELAN The German E-Learning Association and Member of the D-ELAN Executive Committee <www.d-elan.net>
- Director of eLC Institute, Bonn (Germany) <www.elc-institute.com>
- Expert for: E-Learning, standardization, quality, competencies, HR
Agenda

1. Quality Development and Quality Standards

2. RFDQ: The first international quality standard for LET
University of Duisburg-Essen
Institute for Computer Science and Business Information Systems

- Essen - Where is it? Just in the center of Europe ...
University of Duisburg-Essen
Institute for Computer Science and Business Information Systems

What are we doing?
- Online and E-Learning
- Knowledge Management
- Workplace-oriented Learning and Information Sharing
- Didactical Modeling and Learning Design

- International standardization for LET standards
- Quality management and development for HR
- Measurement, quality assurance and controlling for LET
- E-Business and Business Integration

- Development co-operation
- International LET policies and strategies
Quality Development and Quality Standards
Lifelong Learning
What is most important?

LLL – What is most important?
Web 2.0 or classroom?
Informal or formal?
Innovation or tradition?

It's customer orientation!
Learner, students, employees, or ...
Lifelong Learning
What is most important?

LLL – Why Focus on customer?
For best fitting quality!

International standards as instrument

Quality standards are always to adapt:
To the given situation and customer
Lifelong Learning
What is most important?

LLL – Why ISO Standards?

Developed in consensus
Delegations from UN countries
Open access with worldwide acceptance and harmonization
Lifelong Learning
What is most important?

Thus the title of this speech:

Quality Development and Standards in e-Learning

The benefits of quality standards for LLL and Guideline for Implementation
Current status of e-Learning
Opportunities and potentials for future developments

- According to the Gardner Hype Cycle:
The definition of Quality Development
Not only for Learning, Education, and Training (LET)

The general definition of "Quality Development":

Quality development ...

... covers every kind of the strategy, analysis, design, realisation, evaluation, and continuous improvement of the quality within given systems.
Quality development within your organisation
The three levels for adoption, implementation, and adaptation

Integration of quality development involving all stakeholders

Level of the organisation

Level of the individual person
Quality Standards support E-Learning and your business
Your benefits for interoperability and quality development

The seven main benefits of quality standards:

1. **Competitiveness**: Benchmarking of performance
2. **Economics**: Clear processes and reduction of failures
3. **Motivation**: Transparency and involvement of all stakeholders
4. **Image**: International accepted quality standards and marketing
5. **Planning reliability**: Risk management by standardization
6. **Customer orientation**: Equal partnership
7. **Continuous improvement cycle**: Evaluation and optimization
Generic Reference Model for E-Learning Standards

Dimension: Domains

Dimension: Entities

Dimension: Types
Generic Reference Model for E-Learning Standards

The dimensions

- **Dimension Types:**
  - Implementation standards
  - Conceptual standards
  - Level standards

- **Dimension Domains:**
  - Meaning
  - Quality
  - Didactics
  - Learning technology
  - Learning content
  - Context

- **Dimension Entities:**
  - Learning environment
  - Roles
  - Methods
  - Learning systems
  - Learning resources
  - Practice

From:
Quality Development and Standards in e-Learning
International ASEM LLL Conference in Bangkok, Thailand (2009-07-21)
Christian M. Stracke, University of Duisburg-Essen, Germany - slide 20

Standardization Committees and initiatives worldwide
Official standards vs. specifications

<table>
<thead>
<tr>
<th>International</th>
<th>only ISO and IEC: SC36</th>
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<tbody>
<tr>
<td>European</td>
<td>only CEN and CENELEC:</td>
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<td>CEN/TC 353</td>
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<td>only DIN and DKE:</td>
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<td>DIN NI-36</td>
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Official Standards

Specifications

IEEE LTSC / IMS / ADL / AICC / W3C / DC...
CEN/ISSS Workshop Learning Technologies
several CWAs

DIN Workshops
several PAS: PAS 1032-1/-2, 1068, 1069
International Standardization
The unique de-jure standardization organization worldwide

ISO/IEC JTC1 SC36: „IT for Learning, Education, and Training (ITLET)“
http://jtc1sc36.org

- Leading international standardization organization in the field of information technologies for learning, education, and training

- Established 2000-03 in London (UK), current status: 7 WGs and participation by 31 National Bodies + 23 Liaisons Organizations (last plenary: New Zealand 2009-03; next: Sweden 2009-09)

- More information online: http://www.iso.org/jtc1/sc36 or: http://jtc1sc36.org
European standardization
The unique de-jure standardization organization in Europe

European CEN/TC 353:
„ICT for Learning, Education, and Training“

http://www.cen.eu/isss/TC_353

- The European de-jure standardization organization in the field of ICT for learning, education, and training
- EN Standards: Obligation to use within European Union
- Established 2007, first meeting 2007-05 in Milan (Italy), current status: participation by >10 National Delegations + >30 experts, (next meeting: 2009-10-01 in Lyon, France)

More information online:
http://www.cen.eu/isss/TC_353
RFDQ: The first international quality standard for LET
RFDQ: The quality standard ISO/IEC 19796-1

What is the LET standard about?

Learn from your e-mistakes...

...or avoid them by following e-best practice.

RFDQ: The quality standard ISO/IEC 19796-1

What is the LET standard about?

- **First ISO-standard** for quality management in educational and vocational training

- **Reference Process Model** for providers, producers, customers and all users developed by SC36 WG5

- **Process and product orientation** (based on German PAS 1032-1) with international consensus: Adopted as **EN** + in many countries!

- Covering **all processes** of learning projects and opportunities

Learn from your e-mistakes...
### RFDQ: The Reference Process Model
ISO/IEC 19796-1 and PAS 1032-1

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<td>Didactical concept/ methods</td>
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RFDQ: Quality Profiles of the Reference Process Model

How to use: Building Quality Profiles

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### RFDQ: The information model for the description

**How to use the reference process model**

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#### Sub-process(es) / Sub-aspects

- Identification of demands and requirements
- Identification of necessities

#### Objective

Description and indication of the processes goals and aims

*Needs for teaching*

#### Method

Methods of marketing research, trend analysis, need analysis, interviews, balanced scorecard, skill gap analysis, assessments, work place analysis, auditing

#### Result

Definition and documentation of the needs, necessities, and demands (for learning / education / training)

#### Actors

- Final user
- Education and training manager
- Experts in education and training

#### Metrics / Criteria

Review of description validity

#### Standards


#### Annotation / Example
### RFDQ: The information model for the description

**How to use the reference process model: Adaptation**

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| Annotation / Example | |
|----------------------| |
Implementations of RFDQ (ISO/IEC 19796-1)

What are the benefits and current status?

- > 100 implementations worldwide in Europe, Asia, and America

- Big holdings as well as SMEs, Universities and research institutes, Governments and public administration

- First global adopter: UBS, Switzerland
  140 activity maps with 1,400 defined requirements based on selected 25 sub-processes of RFDQ (for all 65,000+ employees)

- Guidelines for adaptation and implementation:
  Developed by Q.E.D. (www.qed-info.de) and by SC36:
  ISO/IEC 19796 Part 4 = Best practice & implementation guide

http://www.iso.org/jtc1/sc36
http://jtc1sc36.org
Guidelines for the implementation of RFDQ
Your steps for the necessary adaptations

1. Creating a context-specific quality profile:
   Individual selection of the 38 processes with reasons

   Quality Profiles for standard situations are defined and developed in Germany (published in German DIN specification PAS 1069)

2. Specifying the individual process descriptions:
   Adaptation of the process descriptions and definitions according to the given situation and organization

   Part 3 "Methods and Metrics" as an instrument for the adaptations developed by SC36/WG5 and published as ISO/IEC 19796-3
Harmonization - The next steps within SC36 WG5
The schedule for quality standards development

Part 2: Harmonized Quality Model

Part 1: Reference Process Model

Part 3: Methods and Metrics

Part 4: Good Practice Cases Implementation Guide

Integration
Application
Adaptation
Integration
Quality Standards support E-Learning and your business
Your benefits for interoperability and quality development

The seven main benefits of quality standards:

1. **Competitiveness**: Benchmarking of performance
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Lifelong Learning
What is most important?

LLL – What is most important?
Web 2.0 or classroom?
Informal or formal?
Innovation or tradition?

It's customer orientation!
Learner, students, employees, or ...
Thank you very much for your attention!

More information?

- Contact:

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