



BLAdEdu

Blended-Learning Quality Concept Optimized for Adult Education

# Italian Guidelines on E-Learning Quality

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What's up in Italy about Quality and Evaluation



# Summary

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- Vademecum for the realization of e-learning projects in Public Administrations
- Guidelines for pre-activation evaluations of Courses in telematics mode
  - Learning quality aspects
- Some personal experiences in blended courses for adult learners
  - University students (age 20-26)
  - Different professional roles (doctors, nurses, biologists) of different blood centers (age 30-60)
- Final considerations about quality

# Vademecum for the realization of e-learning projects in Public Administrations

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CNIPA - Centro Nazionale per l'Informatica nella Pubblica Amministrazione (National Center for Informatics in Public Administration)





# What

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- It takes into account the most famous international standards:
- Quality - UNI EN ISO 9001:2000 and UNI ISO 10015:2001
- Contents - AICC, IMS, SCORM, etc.
- Trying to improve the learning management especially with respect to learners



# To Whom

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- Employees of Italian Public Administration
- E-learning or B-learning paths for adult learners





# Why

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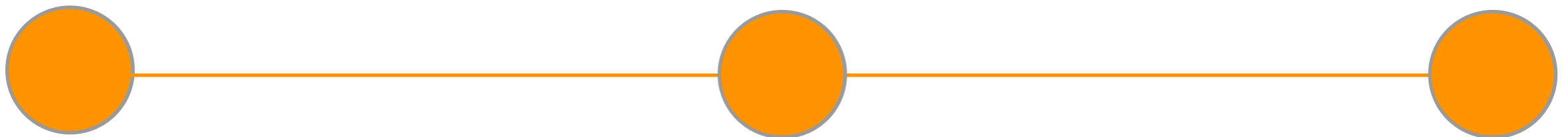
- To guarantee the quality control and management in these terms:
  - designed and planned quality (at the stage of design of the project proposal and executive plan)
  - provided quality (at the stage of implementation of the project and delivery of training)
  - achieved/perceived quality (during the delivery of training and at the end of the project)



# How and When

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- From the point of view of the monitoring and evaluation process, quality must be evaluated:
- **ex-ante**: at the beginning of the training/learning process
- **in progress**: during the training/learning process
- **ex-post**: at the end of the training/learning process





# Project and Process

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- **Evaluation of the Project.** It includes a set of actions aimed at verifying:
  - if the activities correspond to the contractual specifications and planning;
  - the evaluation of the functioning and efficiency / effectiveness of the system and technological supports that play an essential role in a project
- **Evaluation of the Process (Learning Evaluation).** It includes a series of actions aimed at the verification:
  - of the educational activities and relationships that occur between the learning environment, the service model and the learning process, with a particular attention to the results recorded on / by people in training.



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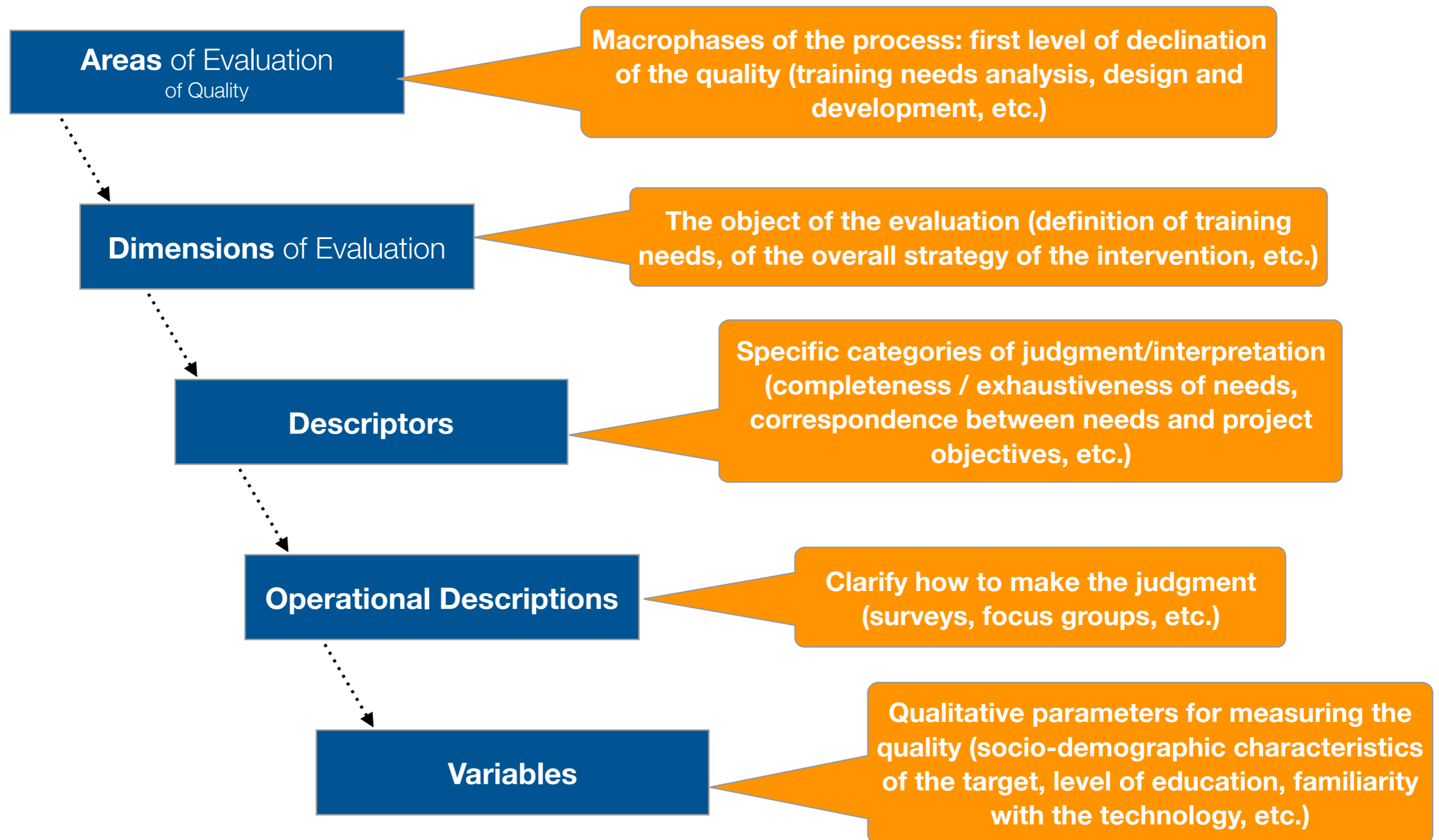
# The *Learner-Oriented e-Learning Quality* approach

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- The evaluation result is not only an overall summary of average and aggregate values
- Better is a reasoned synthesis that respects the complexity and richness of the single phases of the training process, by distinguishing the project / process from the result / product of training



# Logical schema of the Evaluation process





# Some models of Evaluation

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- Keegan and Rumble (1982)
- Kirkpatrick (1994)
- Marshall e Shriver (1994)
- Van Slyke et al. (1998)



# Keegan and Rumble Model

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- **Amount of acquired learning**
- **Quality of acquired learning**
- **Prestige of acquired learning**
- **Relative cost of acquired learning**



# Keegan and Rumble Model

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- Amount of acquired learning
- **Quality of acquired learning**
- Prestige of acquired learning
- Relative cost of acquired learning

## **Some possible criteria**

- quality of teaching materials;
- appropriateness of distance education for teaching certain subjects;
- context in which the educational process is inserted;
- effectiveness of distance learning



# Keegan and Rumble Model

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- Amount of acquired learning
- Quality of acquired learning
- **Prestige of acquired learning**
- Relative cost of acquired learning

## **Some possible criteria**

- degree of recognition of acquired competences by other educational institutions;
- recognition of the qualification by employers;
- consideration given to distance education and its diplomas from the community in general.



# Marshall e Shriver Model

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- **Evaluation of teacher and tutor**
- **Evaluation of teaching materials**
- **Evaluation of course modules**
- **Evaluation of curriculum**
- **Transfer of learning**



# Marshall e Shriver Model

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- **Evaluation of teacher and tutor**
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## **Some possible criteria**

- quality of the interaction;
- frequency of actions/interventions in the learning environment;
- how clear and quick are the responses to students' questions.



# Marshall e Shriver Model

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- Evaluation of teacher and tutor
- **Evaluation of teaching materials**
- Evaluation of course modules
- Evaluation of curriculum
- Transfer of learning

## **Some possible criteria**

- feedback of the students on:
  - degree of difficulty;
  - relevancy respect to learning goals;
  - mode of presentation;
  - interest generated.



# Marshall e Shriver Model

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- Evaluation of teacher and tutor
- Evaluation of teaching materials
- **Evaluation of course modules**
- Evaluation of curriculum
- Transfer of learning

## **Some possible criteria**

- articulation of the course;
- structure of the learning modules;
- order in which the modules are proposed within a course.



# Van Slyke et al. Model

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## Characteristics of:

- **Organization**
- **Learners**
- **Course**
- **Technologies used in the learning context**

**This model introduces the importance of the learners' characteristics as a key factor of success or failure of a learning project**



# Ex ante Learning Evaluation

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A first cycle of evaluation should be collocated at the beginning of the learning plan, in order to collect data and information on the students.

## **Preliminary tests are useful for:**

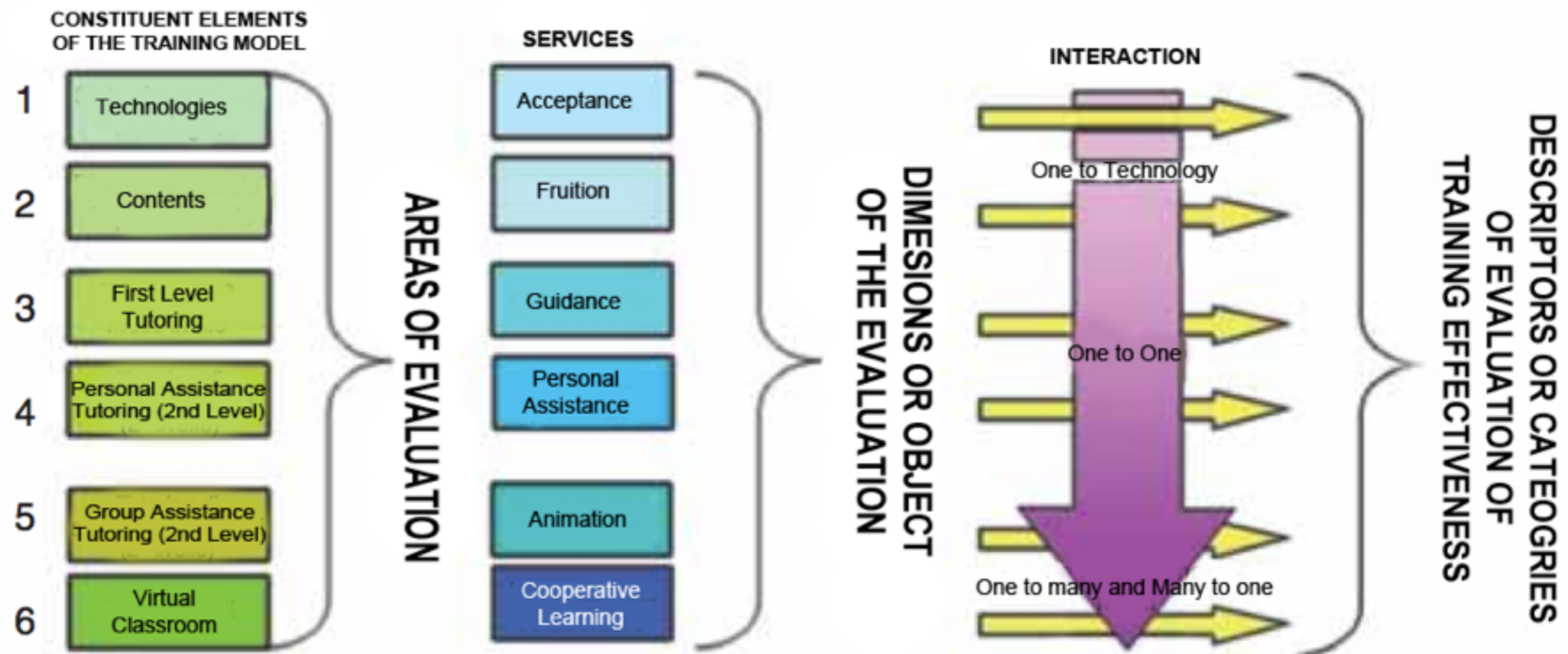
- checking the initial level of knowledge / competence and highlight the topics that will be developed within the courseware
- increasing attention and interest in the educational offer

## **Tests results are useful for:**

- designing personal learning plans (personalization)
- a self-evaluation of the students. Tests help to raise awareness of their own learning needs

# In progress Learning Evaluation

The constant and systematic monitoring of the input-output process allows to create an information system on the overall performance of the project, placing the user and the quality of the service in its center. The quality is considered under different aspects and found through the feedback of the users and the other stakeholders.





# Ex post Learning Evaluation

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It is expressed through two main lines of action:

1. the assessment of acquired competences
  - recognition / certifiability of the training course
2. the collection, analysis and interpretation of the results of all surveys carried out according to the different dimensions of the project

# Guidelines for pre-activation evaluations of Courses in telematics mode

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ANVUR - Agenzia Nazionale di Valutazione del sistema Universitario e della Ricerca (National Agency for the Evaluation of Universities and Research Institutes)

**LINEE GUIDA**  
**per le valutazioni pre-attivazione dei Corsi di Studio**  
**in modalità telematica**  
**da parte delle Commissioni di Esperti della**  
**Valutazione (CEV)**  
ai sensi dell'art. 4, ~~comma 4~~ del Decreto Ministeriale 30  
gennaio 2013 n. 47.



# What

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- A lot of evaluation indicators for e- and b-learning, divided into various dimensions:
  - Design of the course
  - Didactic structure
  - Teacher and Teaching materials
  - Didactic interaction
  - Assessments
  - Requirements for technical solutions



# What

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- A lot of evaluation indicators for e- and b-learning, divided into various dimensions:
  - Design of the course
  - Didactic structure
  - Teacher and Teaching materials
  - **Didactic interaction**
  - Assessments
  - Requirements for technical solutions



# Didactic interaction

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## Distributive Didactic

Teaching actions comparable to teaching in the classroom, focusing on the presentation/illustration of contents by the teacher:

- audio-video lessons
- web conferences
- pre-structured coursewares
- similar variations

## Interactive Didactic

- teaching actions of teachers/tutors typically in the form of demonstrations or additional explanations on exercises or problems: faqs, mailing lists or web forums
- participation of students in discussion and collaborative environments: web forums, blogs, wikis
- single or collaborative structured activities: reports, exercises, case studies, problem solving, web quests, design and production of artifacts, made by students, with relative feedback
- typical forms of formative assessment, with the character of questionnaires or tests in progress



# Didactic interaction

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- Some indicators:
  - Is the development of didactic interaction clear and defined? If so, how is the process of interaction, communication, monitoring, motivation and involvement of the students managed?
  - The types of tutoring are appropriate for quantity, quality and skills to achieve the educational goals set?
  - Within each course, is it guaranteed a substantial share of activities (problems, reports, case studies, simulations, etc...) with feedback from the teacher or tutor to the specific work of the single student?



# An interesting approach to learning evaluation

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*E-learning Quick-Audit*  
by Will Thalheimer

**AUDIT**

# E-learning Quick-Audit

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## 8 methodological steps

1. making the learning context similar to the context in which the performance will take place
2. offering activities that allow to retrieve and test the acquired information
3. giving feedback
4. providing opportunities for repetition of acquired concepts
5. inserting a delay between learning and practice
6. presenting content in different ways
7. using only the relevant information
8. helping the student to focus on the most important information



# E-learning Quick-Audit

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## Self-evaluation

The effectiveness of the teaching methodology may be subject of self-assessment by the students through an online questionnaire designed to detect the quality in several aspects:

- quality of teaching materials
- appropriate lesson contents
- flexibility of the course
- quality of skills and helpfulness of teachers and tutors
- quality of the organization of the course
- quality of hardware and software
- level of interaction between learners and tutors and between learners themselves





Some personal  
experiences in blended  
courses for adult  
learners

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# First experience

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- University course (students of Motor sciences)
- Age **20-26** (some exceptions)
- About **180 students** with different backgrounds, different experiences on the topics of the course, very different motivation
- Only **6 lectures** in 3 months
- **A lot** of topics and contents to communicate



# First experience

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- A Moodle installation for:
  - Contents
  - Two different paths:
    - one for “real” attendants: 1 online quiz, a discussion forum, a group work on different Topics of Interest but with the same context: motor sciences and special education
    - one for students in self-learning: 1 online quiz, 2 open questions in classroom

# First experience

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- Pros

- skepticism turned into involvement (the deepening on a part of contents)
- enthusiasm (students were encouraged to report their personal experiences)
- comparison with others (peer)
- concrete goal (the relation to the other groups)
- various assessment dimensions (subjective, objective, intersubjective)



- Cons

- it's hard to know how actually each student has worked (for both paths)
- examination results (over 3 years) are not so good for the second path (self-learning)





## Second experience

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- Training and support program for the construction of an evaluation model of good practices in blood centers of Tuscany
  - Age **30-60**
  - About **60 participants** working in the same context but with different professional roles and in different blood centers
  - **10 meetings** interspersed with periods of online work (1 year)
  - **A lot** of practices to be defined, improved, measured with indicators, applied in working contexts: together



# First experience

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- A Moodle installation for:
  - Shared documents
  - 3 Forums for different steps of the process
  - 1 Wiki for the building of a shared document
- Goal of the project:
  - change something in the work practices and disseminate them in a peer education phase

# First experience

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- Pros

- skepticism turned into involvement (their expertise as focus of the process)
- enthusiasm (the sensation of making something to improve the system)
- active role of the learners
- exploitation and optimization of both learning environments, the online and the offline one
- presence and distance dialogue and together contribute to the achievement of the goals



- Cons

- From the point of view of learning there are no cons: maybe students have not learnt a lot of info/ contents, but surely they have reflected on their work, their daily activities, in order to improve them and improve their work



# Final considerations

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Some possible criteria for quality



# Final considerations

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- A lot of areas/dimensions not so much indicators/criteria
- Blended learning is an added value itself for quality: importance of F2F meetings for several aspects (human relations, learning agreement, group building, etc.) and viceversa
- Good quality criteria for e-learning courses are sometimes useful for B-learning courses, especially for what concern quality aspects



# Possible criteria

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## Learning agreement

- Are goals and outcomes of the course clear, defined and shared with students/ participants?
- Are rights and duties of students/participants clear, defined and shared?
- Is the timeline of the course defined and shared?



# Possible criteria

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## Interrelations and communication

- Is there a tutorship to welcome the students and to help them in their learning path?
- Is there interaction between learners and teachers/tutors and between learners themselves?
- Are the communication tools frequently used?

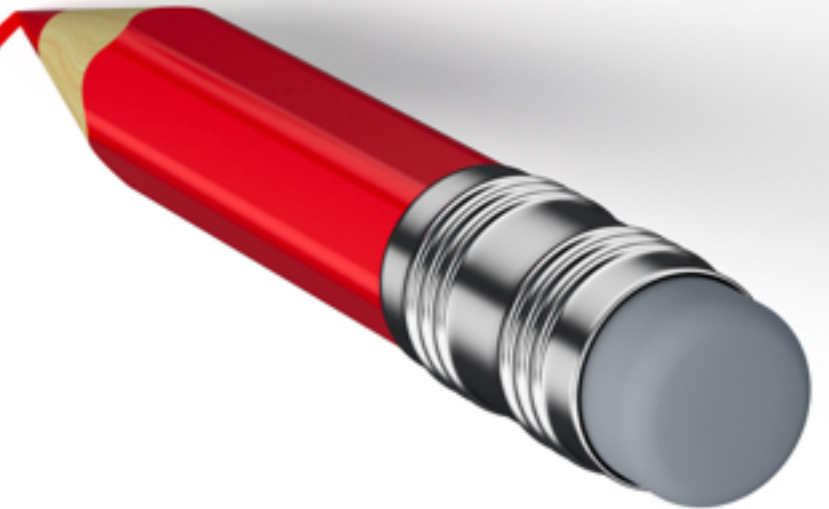


# Possible criteria

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## Involvement

- Are students/participants involved in choice and definition of learning goals?
- Are students/participants involved in choice and definition of contents?



# Possible criteria

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## Tools and environments

- Which is the role of the VLE with respect to classroom lectures? (Repository, Newsletter, Communication, Discussion, Evaluation, etc.)
- Which is the role of the VLE with respect to achieving the learning goals? Is the VLE essential or it is a "something more"?
- Are the VLE and/or other online tools easy to you use, or they can generate frustration?



# Possible criteria

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## Evaluation

- How many parameters (objective, subjective, intersubjective) of assessment are used in the course?
- When is the assessment done? (ex ante, in itinere, ex post)
- Are students involved in assessment of their peers?
- Are students stimulated to a self-evaluation?
- Are assessment parameters able to stimulate self-reflection in students/participants?



# The authors

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**Thank you!**

