



Academic Assessment and Trust in Online Provision: Quality Assurance Tools

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Agència
per a la Qualitat
del Sistema Universitari
de Catalunya



Universitat Oberta
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OUTLINE

1. Introduction to the TeSLA project
2. Demo session
3. QA standards for e-assessment

INTRODUCTION

On-campus
programmes

QAA

Procedures
in place

On line /
blended
programmes

QAA

Development

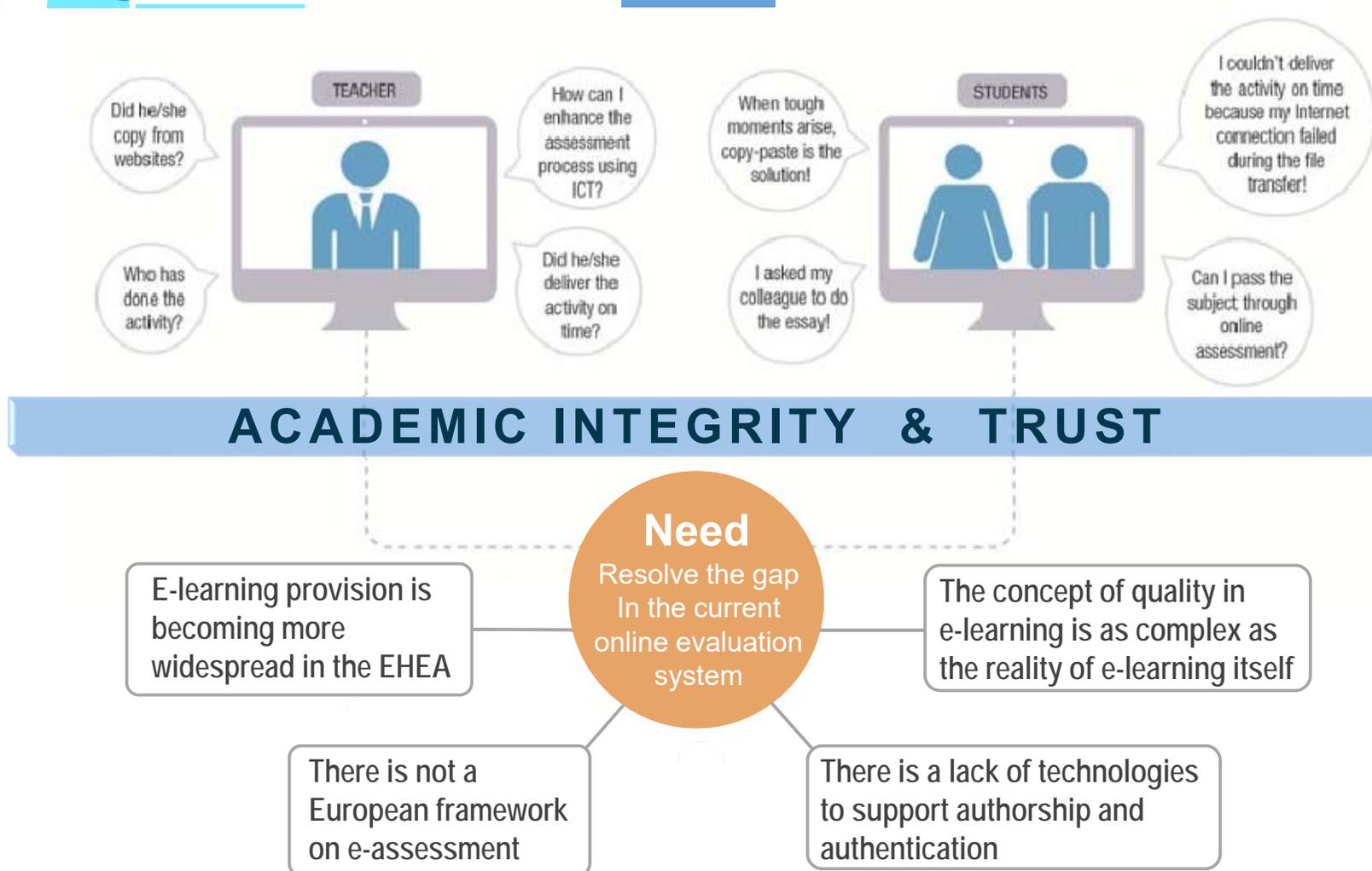
Challenges

- Instructional design (innovation).
- E-assessment (authorship and authentication).
- Experts with experience in e-learning.

Formal
education



WHY?



TeSLA MAIN OBJECTIVES



Define and develop an **e-assessment system**, which ensures learners **authentication and authorship** in online and blended learning environments while avoiding the time and physical space limitations imposed by face-to-face examination.



Support any e-assessment model (formative, summative and continuous) **covering teaching and learning processes as well as QA aspects, privacy and ethical issues**, and technological requirements.



<http://tesla-project.eu/>





CONSORTIUM PARTNERS

18 PARTNERS

8 UNIVERSITIES

3 QA BODIES

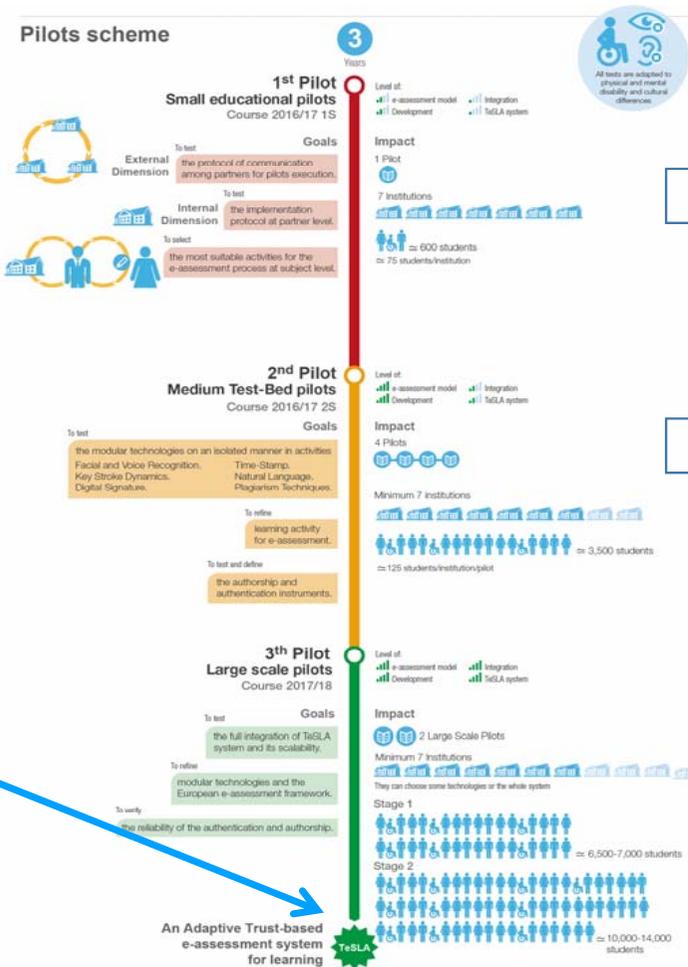
4 RESEARCH CENTERS

3 ENTERPRISES



PILOTS SCHEME

Pilots scheme



Finished

Finished

Finished

Started Feb. 2018

New institutions

April 2018

TeSLA INSTRUMENTS

DOCUMENT ANALYSIS

Involves the analysis of written material using a qualitative analysis package that describes discourse and its interpretation

Plagiarism tools



Analyses written material and detects similarities among various written documents



Forensic analysis

Determines the authorship verification and authorship attribution of written documents based on the comparison of current documents with stored data

BIOMETRICS

Allow the clear identification of humans based on some specific physical characteristics or special behaviour

Facial recognition



Analyses facial expressions in two stages: facial detection and recognition

Voice recognition



State-of-the-art audio description method. Speaker segmentation and cluster grouping

Keystroke dynamics



Measures how the user writes in regards to pressure and time-based measuring

SECURITY TECHNIQUES

Deploy a security service provided by a layer of communicating systems

Timestamp



Generates a sequence of encoded information identifying when an event is recorded

Digital signature



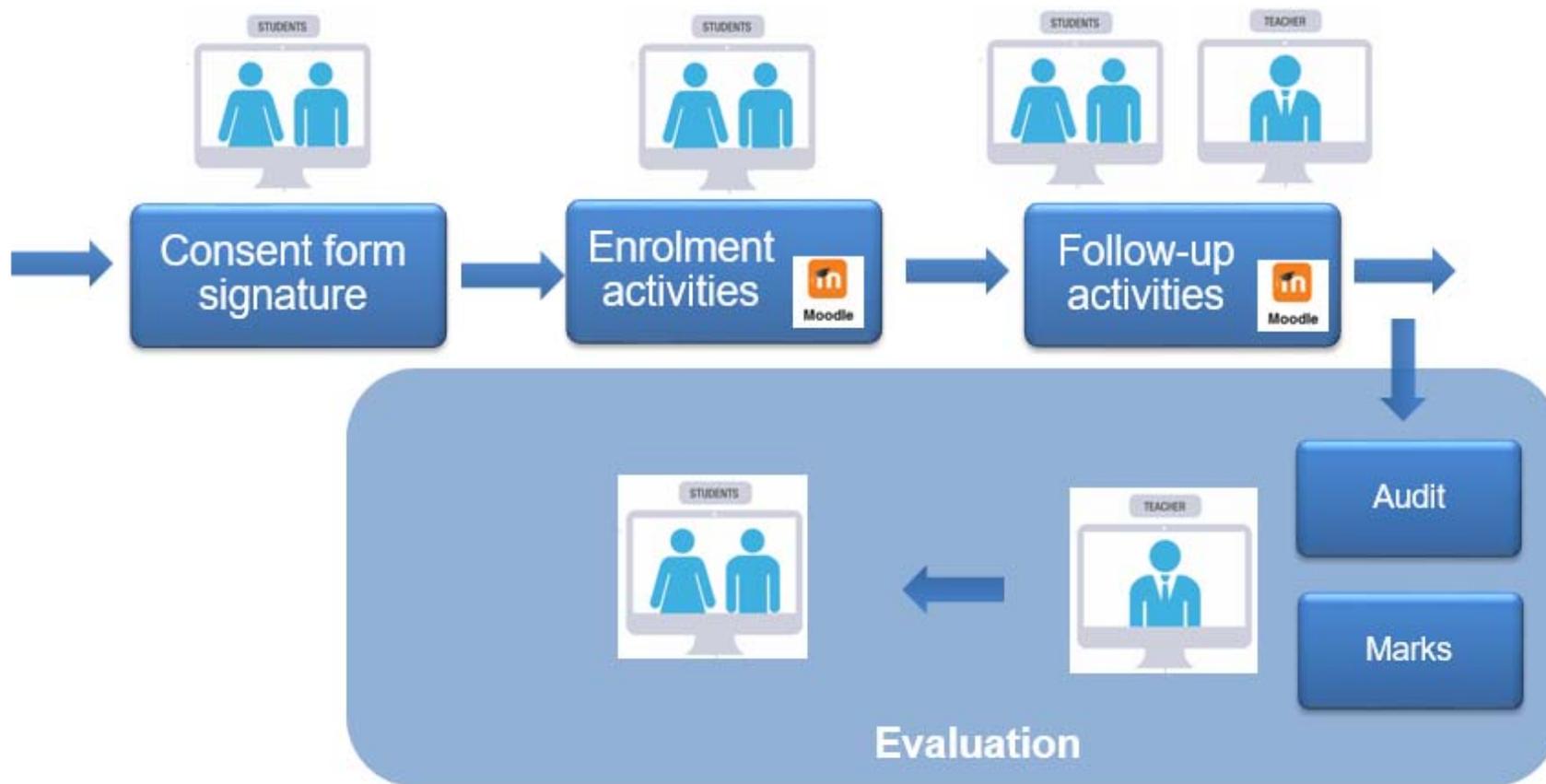
Guarantees the authenticity of a digital message or document by a mathematical scheme

AUTHORSHIP

AUTHENTICATION

CONFIDENCE

PILOT EXECUTION



TeSLA WORKPACKAGES

WP 1. Project Management (UOC).

WP 2. Requirements and modeling of the educational model (UOC).

WP 3. Data privacy and ethics (Namur).

WP 4. Quality assurance in online higher education (AQU). ENQA & EQANIE.

WP 5. Design and implementation of trusted assessment mechanisms (Lplus).

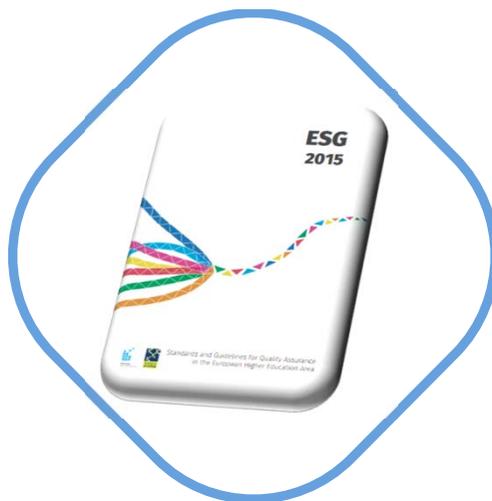
WP 6. Integration of the framework in learning environments (Watchful).

WP 7. Design and development of pilots (SU).

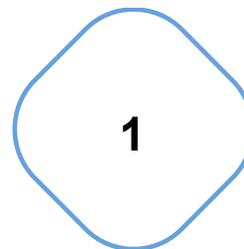
WP 8. Pilots evaluation (OU).

WP 9. Communication, dissemination, liaisons and exploitation (protOS).

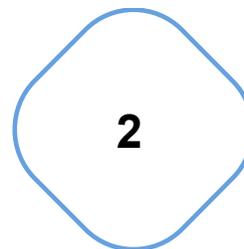
ESG (2015)



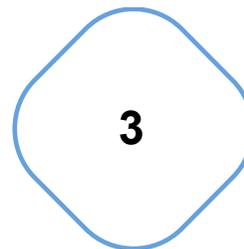
Same standards for HEI
(face to face or online)



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PART 1. INTERNAL QUALITY ASSURANCE

Development of internal quality assurance elements

PART 2. EXTERNAL QUALITY ASSURANCE

Design of the external review methodology for the pilots

PART 3. QUALITY ASSURANCE AGENCIES



STANDARDS

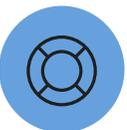
1. Policies, structures, processes and resources for QA of e-assessment.
2. Assessment of learning.
3. E-assessment system security, capacity and authenticity.
4. Infrastructure and resources.
5. Student support.
6. Teaching staff.
7. Learning analytics.
8. Public information.



E-ASSESSMENT



INDICATORS



EVIDENCES

RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

1. POLICIES, STRUCTURES, PROCESSES AND RESOURCES FOR QA OF E-ASSESSMENT

The institution has appropriate policies, structures, processes and resources **to ensure that e-assessment is timely and fair**, and it includes **ethical and legal considerations**. Besides, the proposal for the e-assessment is aligned with the **pedagogical model** of the institution and ensures the constant achievement of its objectives.

Main aspects:

- Organisation and protection against academic fraud
- Accessibility to students with special educational needs
- Adoption of new technologies to ensure the expected quality of e-assessment
- Technical support
- Electronic security measures
- Alignment with educational objectives and pedagogical models
- QA procedures for external partners

2. ASSESSMENT OF LEARNING

E-assessment methods are varied, facilitate pedagogical innovation and determine rigorously the level of achievement of learning outcomes. They are consistent with course activities and resources and adapt to the diversity of learners and educational models.

Main aspects:

- Informed and consistently applied
- Reflect innovative pedagogical practices
- Encourage the use of a variety of assessment methods
- Understand the diversity of learners
- Learning feedback is timely given to students
- Satisfaction procedures and student appeals processes

RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

3. E-ASSESSMENT SYSTEM SECURITY, CAPACITY AND AUTHENTICITY

*The development and implementation of the e-assessment include protective measures that **guarantee learner authentication and work authorship**. The e-assessment system is secure and fit for purpose.*

Main aspects:

All-inclusive fail-safe technology development plan for:

- Technologies, data protection and privacy requirements
- Building and maintenance of the infrastructure and processes for the ongoing review of technologies
- Ensure the operability and security against external attacks

Code of conduct on academic integrity, including sanctions and good practice

4. INFRASTRUCTURE AND RESOURCES

*The institution utilises the **appropriate technologies** that match the course content in order to enhance and expand learning for all types of students' needs.*

Main aspects:

- Ease of use for all students
- Consider ethical and legal aspects
- Constant update in light of technological changes
- Support of a variety of methods and tools
- Sufficiently tested prior to its use
- Ensure coverage and the setup of the required technical system
- Accessible for SEND students

RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

5. STUDENT SUPPORT

*Students are aware, have access and use effective and well-resourced **support services** for counselling, orientation, tutoring and facilitation in order to increase retention and success. Student support **covers pedagogical, technological and administrative related needs** and is **part of institutional policies and strategies**.*

Main aspects:

- Student support policies
- Access to timely and adequate support services
- Satisfaction procedures with student support

6. TEACHING STAFF

*The teaching staff is **skilled and well-supported** in relation to **technological and pedagogical requirements and e-assessment methods**.*

Main aspects:

- Teaching staff is trained and proficient
- Procedures to identify the support requirements of the teaching staff
- Adequate, accessible and timely technical and pedagogical support services
- Satisfaction procedures

RELEVANT ELEMENTS FOR THE EXTERNAL EVALUATION OF E-ASSESSMENT

7. LEARNING ANALYTICS

The institution has an **information management system** that enables agile, complete and representative collection of data and indicators derived from all aspects related to e-assessment methodology and authenticity and authorship technologies.

Main aspects:

- The institution collects, analyses and uses relevant information from stakeholders for the effective management of the e-assessment methodology

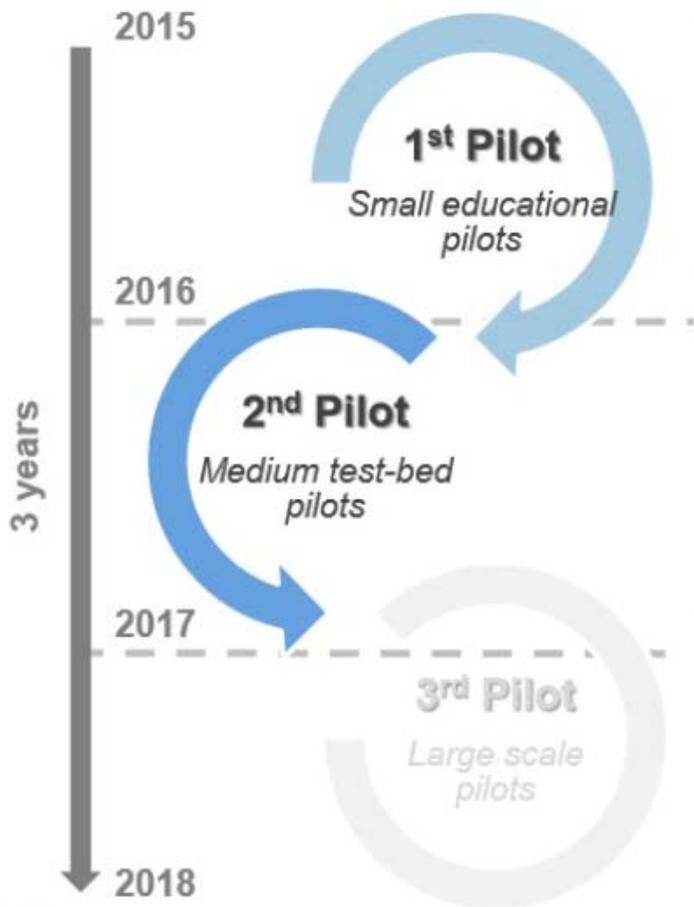
8. PUBLIC INFORMATION

The institution appropriately **informs** all stakeholders of **pedagogical development, the e-assessment method, and resources technology**. The institution **publishes** reliable, complete and up to date information on pedagogical methods and technical support. Students should be made aware of the hardware requirements and learning resources technology and technical support.

Main aspects:

- The institution publishes reliable, complete and updated information on e-assessment methods, students' technical requirements and institutional technical support

RESULTS



- ✓ To **TEST** the protocol of pilots' execution on external protocols at other level (i.e. other countries)
- ✓ To **SELECT** the most appropriate process at subject level.

1st testing of **TeSLA** INSTRUMENTS

ALPHA VERSION

- ✓ To **TEST** the modular technologies on an isolated manner in activities.
- ✓ To **REDESIGN** learning activity for e-assessment.
- ✓ To **TEST** and **DEFINE** the authorship and authentication instruments.



Number of unique students who completed minimum requirements for each instrument

RESULTS



STANDARDS

1. Policies, structures, processes and resources for QA of e-assessment.
2. Assessment of learning.
3. E-assessment system security, capacity and authenticity.
4. Infrastructure and resources.
5. Student support.
6. Teaching staff.
7. Learning analytics.
8. Public information.

CONCLUSIONS

- E-assessment system (TeSLA) can contribute to:
 - provide **confidence** to fully online and blended provision (formal or non-formal education).
 - **improve the perception and development of e-assessment processes** (formal or non-formal education).
 - **reduce** the number of **diploma mills** or with low reputation.



THANK YOU FOR YOUR ATTENTION



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