CALOHEE: Context and Concept

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Agenda

• European Union and the policy context
• CALOHEE and Tuning
• Assessment challenges
European Union Support for Higher Education

Evidence for policy and practice

Cooperation between policy makers

Cooperation between practitioners (HEIs, business, NGOs...)

Individual mobility (students, staff...)

Measuring the Power of Learning
Promoting “quality” and “relevance”

Subject Area knowledge & skills

What 'we' want from higher education

Knowledge & skills for active citizenship

Knowledge & Skills relevant to work

Big question: How well does higher education actually deliver this?
Inter-related sets of competences

Subject area
knowledge &
skills

Knowledge & skills for active citizenship

Knowledge & Skills relevant to work
Towards answers?

**Graduate tracking**
- Better **feedback loops** on what happens to past students (career progression, skills needs and skills use)

**Measurement of learning outcomes**
- Better measurement of **what students know and can do** when they leave higher education
Towards answers?

Graduate tracking

- Better **feedback loops** from past students (career progression, skills needs and skills use)

Measurement of learning outcomes

- Better measurement of *what* students know and can do when they leave higher education

CALOHEE?
What is CALOHEE

- Measuring and Comparing Achievements of Learning Outcomes in Higher Education in Europe
- Funding from the European Union
- Sponsored and organized by the Tuning Academy
  - Universities of Deusto, Bilbao (Spain) and Groningen (The Netherlands)
- Tuning was launched in 2000 as an academic response to the Bologna Process
- The goal of Tuning is engage in a process that will make programs of studies comparable, compatible and transparent.
CALOHEE Project aims

• Develop transnational conceptual frameworks and assessment frameworks for five academic domains and five related disciplines
  • Civil Engineering
  • Nursing
  • History
  • Education
  • Physics

• Develop work plans for creation and implementation of assessments.

• Develop white papers explaining costs/benefits of various designs for transnational comparative assessment.

• Develop multi-dimensional instruments to measure and compare levels of learning doing justice to the different missions and profiles of HE institutions
CALOHEE Partnership

• 75 universities from 15 countries each
• European Student Union (ESU) / BEST
• European Association of Institutions in Higher Education (EURASHE)
• European Consortium for Accreditation in Higher Education (ECA)
• European Network for Accreditation of Engineering Education (ENAEE)
• University networks
  • Coimbra, Santander, UNICA, Utrecht, Compostela
• Other members in the advisory board: European University Association (EUA), the European Association for Quality Assurance in Higher Education (ENQA), European Association for International Education (EAIE), U-Multirank, Academic Cooperation Association (ACA), ENIC-NARIC
• The project is run by a Management Board and a Coordinating Team with technical support ETS
Civil Engineering

• Alfredo Soeiro, (coordinator), Universidade do Porto, (Portugal)
• Alfredo Squarzoni, (coordinator), Università degli Studi di Genova, (Italy)
• And faculty from
  • TTK University of Applied Sciences (Estonia)
  • Waterford Institute of Technology (Ireland)
  • University of Sheffield (United Kingdom)
  • University Polytechnica Bucharest (Romania)
  • University of Salerno (Italy)
  • Ecole des Ponts Paris Tech (France)
  • Aalto University School of Engineering (Finland)
  • University of Minho (Portugal)
  • University of Architecture, Civil Engineering and Geodesy (Bulgaria)
  • Aristotle University of Thessaloniki (Greece),
  • Middle East Technical University, Ankara (Turkey),
  • University Catholique de Lovain-la-Neuve (Belgium)
Education and Teacher Training

• Julia Maria Gonzalez, (coordinator), Education for an Interdependent World/Deusto International Tuning Academy, Bilbao (European Union/Spain),

• And faculty from
  • Banku Augstskola School of Business and Finance (Latvia)
  • University of Warsaw (Poland)
  • University of Salamanca (Spain)
  • Université de Nice Sophia-Antipolis (France)
  • University of Szeged (Hungary)
  • Utrecht University (Netherlands)
  • Cukurova University (Turkey)
  • Dublin City University (Ireland)
  • Humboldt University Berlin (Germany)
  • Johannes Gutenberg University Mainz (Germany)
  • University of Padova (Italy)
  • Ovidius University of Constanta (Romania).
  • Vilniaus Kolegija University of Applied Sciences (Latvia)
  • Ghent University (Belgium)
Physics

- Ornella Pantano (coordinator), Università degli Studi di Padova (Italy)
- Fernando Cornet (coordinator), Universidad de Granada (Spain)
- And faculty from
  - University of Lasi (Romania)
  - Eötvos Loránd University (Hungary)
  - Radboud University Nijmegen (Netherlands)
  - King’s College London (United Kingdom)
  - Ghent University (Belgium)
  - University of Potsdam (Germany)
  - University of Patras (Greece)
  - Higher Institute of Technology, Sligo (Ireland)
  - Utrecht University (Netherlands)
  - University of Helsinki (Finland)
  - Coimbra University (Portugal)
  - University of Copenhagen (Denmark)
  - Université Paris-Sud (France)
History

• Ann Katherine Isaacs (coordinator), Università di Pisa (Italy)
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• And faculty from
  • Vilnius University (Latvia)
  • Ruhr-Universität Bochum (Germany)
  • NUI Galway (Ireland)
  • University of Bialystok (Poland)
  • Universidad Autonoma de Madrid (Spain)
  • Aristotle University of Thessaloniki (Greece)
  • University of Oulu (Finland)
  • University of Bologna (Italy)
  • Universität Salzburg (Austria)
  • Karadeniz Technical University (Turkey)
  • Babes-Bolyai University (Romania)
  • Queen's University Belfast (United Kingdom)
  • University of Groningen (Netherlands)
Nursing

• Mary Gobbi, (coordinator), University of Southampton (United Kingdom)
• Marja Kaunonen (coordinator) University of Tampere (Finland)
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  • Hochschule Berlin (Germany)
  • Semmelweis University (Hungary).
  • Centre of Excellence for Nursing Scholarship of Ipasvi Rome (Italy)
  • University of Ljubljana (Slovenia)
  • Lithuanian University of Health Sciences (Lithuania)
  • Artesis Plantijn Hogeschool Antwerpen (Belgium)
  • King's College London (United Kingdom)
  • University College Dublin (Ireland)
  • Hanze University of Applied Sciences (Netherlands)
  • Universitat de Barcelona (Spain)
  • University of Malta (Malta)
  • University of Southern Denmark (Denmark)
Regional Approach: EUROPE

Foundation: Sectoral and Subject Area Frameworks

Integrated approach: subject specific + generic

Multi-dimensional approach: missions and profiles

Assessments at final stage BA
Goal is Comparable Assessments

• To obtain / provide reliable information about achievements of learning in (transnational) comparative perspective at
  • Individual level
  • Programme level
  • Institutional level
  • National level
  • International level

• to allow for degree program enhancement focusing on the domain of knowledge taking into account preparation for employment and social and civic engagement.

• Offering main stakeholders reliable information for making informed choices.
So What Would a Well-Engineered Assessment Program Look Like?

• Designed by faculty stakeholders
• Measure those learning outcomes that faculty think are most important
• Be smart about the mix choice (cheap) and constructed response (expensive) tasks
• Appear to students as measuring important skills in the real world
• Provide information of use to both institutional and individual stakeholders
Assessment Design Is a Problem of Design Within Constraints

- Time
  - Testing time
  - Development time
- Innovation
- Technical quality
  - Validity
  - Reliability
- Content Knowledge
- Higher order skills

- Score use
  - Group?
  - Individual?
- Subscores
- Scoring
  - AI
  - Rater training
- **Authenticity**
- **Motivation**
- **Money**
Authenticity

Thornton III & Kedharnath (2013)
High fidelity (samples of behavior)

- Employment probation
- Internships
- Work sample tests
- Simulations
- Situational judgment tests and interviews
- Paper-and-pencil ability and personality tests

Low fidelity (signs of behavior)
Motivation

• Motivation in low stakes tests is a challenge
  • Low motivation likely reduces validity of the interpretation of the assessment.

• Motivation increases to the extent that there are stakes for the test taker.

• Increased stakes, however, imposes increased obligations for technical quality.
  • Which typically translate into increased costs.
Money

• In practical terms, money is usually the ultimate constraint.
• The normal process:
  • We try to imagine what we want, and then we compromise and try to get to what we can afford.
    or
  • We know how much we have and maximize within that budget.
• It is impossible to know what a test will cost until we know what it is supposed to be a test of and what its purpose is.
• It may be wise to constrain design to within a reasonable budget.
  • If we know the budget it is limited it may be wise not too spend time thinking through test designs that involve the most expensive task types.
Final Thoughts

• The choice of item types, formats, delivery mode, and other assessment implementation factors should be primarily driven by the assessment purposes and the claims to be made about test takers.

• The design could vary substantially across the five broad disciplines identified by CALOHEE given the unique nature of each discipline.
Thank You! Questions?

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