

AHELO Feasibility Study



INDIANA UNIVERSITY
Center for Postsecondary Research



Statistics
Canada

Statistique
Canada

Background, rationales

International environment

Development approach

Insights and progress

Considerations for Australia

Contents

Increasing need for sophisticated forms of management, evaluation and quality monitoring – **to do more, better, with less**

Higher education is growing in significance and scale – clear rationales for increasing output and ensuring **quality outcomes**

Higher education is faced with huge cost and competitive pressures – **evidence-based management helps** expand provision with quality

Internationalisation pervades all facets of teaching and learning, and graduate outcomes – **international perspectives are vital**

**Complexities
shaping
higher
education**

AHELO's
unique and
significant
value-add

AHELO addresses **serious information misalignments and gaps** in global higher education

Learning outcomes data **helps policy and institutional leaders** manage growth, quality and cost complexities

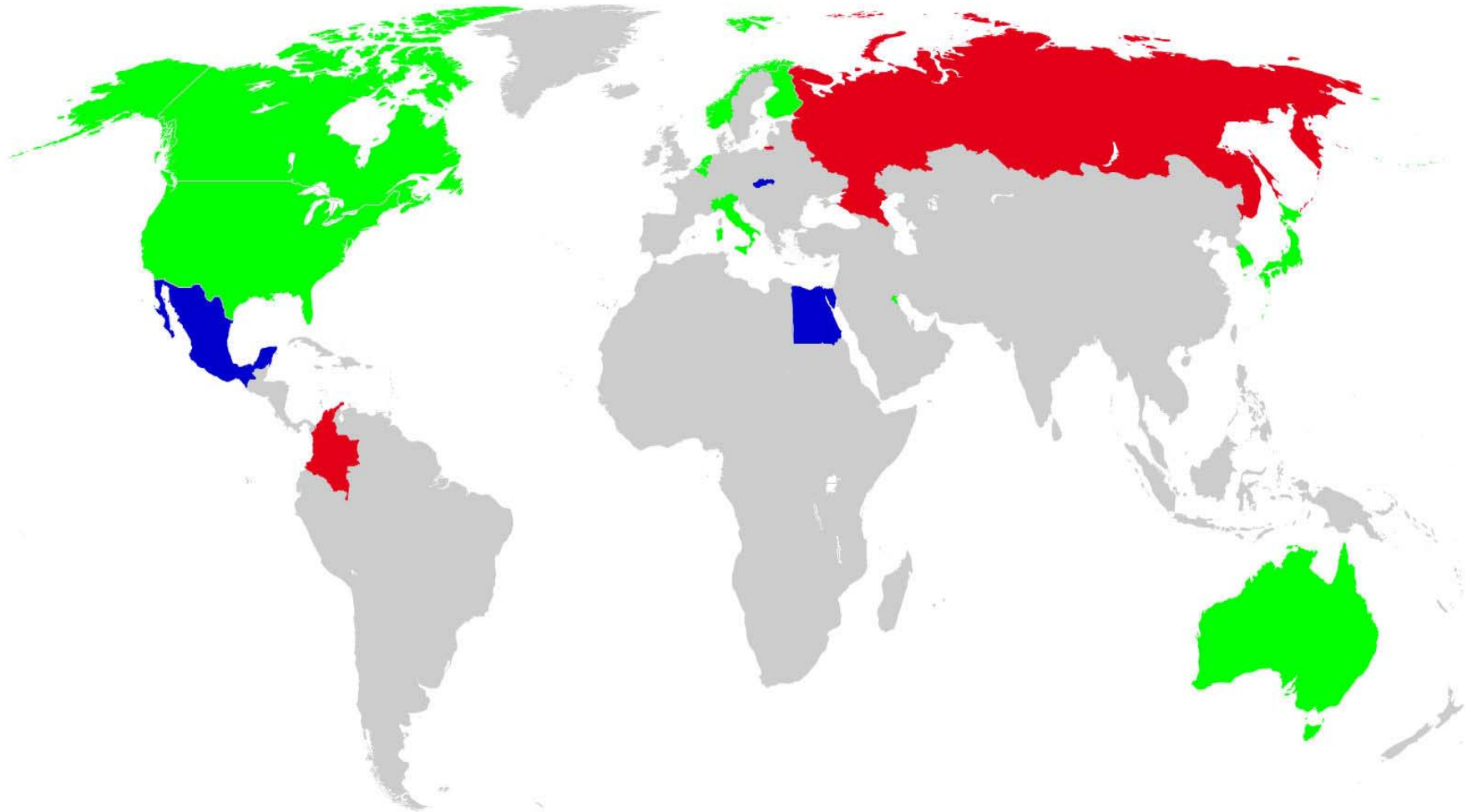
Further reliance on flawed, simplistic rankings will constrain growth and prosperity – **robust multidimensional perspectives required**

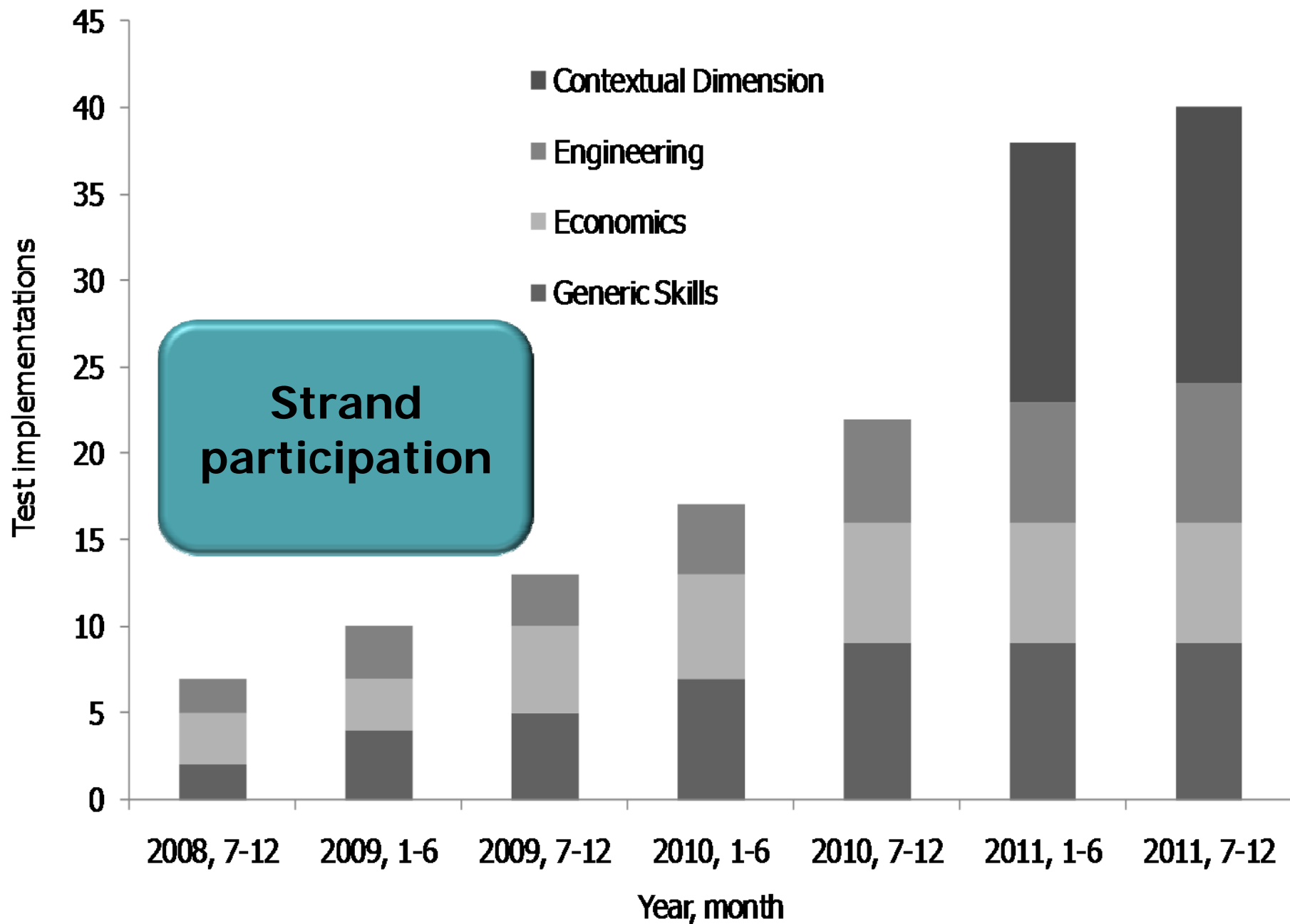
Measures of learning outcomes are the **key to diagnosis and reform** in higher education worldwide

AHELO world map

Linguistically diverse...

Arabic Dutch English Finish
Flemish Italian Japanese Korean
Norwegian Russian Slovak Spanish





Country	Management	Context	Generic Skills	Economics	Engineering
Australia					
Belgium					
Canada					
Colombia					
Egypt					
Finland					
Italy					
Japan					
Korea					
Kuwait					
Mexico					
Netherlands					
Norway					
Russia					
Slovak Republic					
United States					
Total	16	16	9	7	8

Country by strand



Koulutuksen TUTKIMUSLAITOS

TUURETTA TUTKIMUSTA JOKA PÄIVÄ!



Koulutuksen tutkimuslaitos >

Koulutuksen tutkimuslaitos

AHELO

Tavoite

Toteutus

Tulokset

Yhteyshenkilöt

Tiedotteet ja tilaisuudet

Ajankohtaista

Julkaisut

Sivukartta

AHELO-FS-hanke

AHELO-FS (Assessment of Higher Education Learning Outcomes - Feasibility Study) on OECD:n käynnistämä korkeakouluopiskelijoiden osaamista mittaava tutkimushanke, jossa esiselvitetään, onko mahdollista mitata kansainvälisesti korkeakoulu opiskelijoiden oppimista ja osaamista. Esiselvityksessä on neljä osa-aluetta: geneeriset taidot, oppiainekohtaiset taloustiede ja tekniikka sekä kontekstuaaliset tekijät. Suomi on mukana geneerisiä taitoja mittaavassa osa-alueessa yhdessä Egyptin, Korean, Meksikon, Kuwaitin, Norjan, Kolumbian ja Yhdysvaltojen kanssa.

Lisätietoja

Kansallinen koordinaattori

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ORGANISATION
FOR ECONOMIC
CO-OPERATION
AND DEVELOPMENT



Australian Council for Educational Research



Opetus- ja kulttuuriministeriö

Peda.net Verkkoversio 2011.03.07/KTL

In-country
communication

Resonance (ERA)

• Fagskriving i
grunnopplæringen
(FAGER)

• ICCS 2009

• Assessment of Learning Outcomes in Higher Education

[Ver información](#)

Measuring Instruments in Learning Outcomes

International stakeholders

>300 individuals involved directly
Hundreds of organisations/institutions
Up to 10,000 leaders, faculty, students
Many thousands of public stakeholders

- Email
- Tele-/video-conferencing
- AHELO Exchange
- Face-to-face meetings
- Newsletters
- Media
- Conferences

Dashboard

Assessment of Higher Education Dashboard

Spaces: My

- ACER-CUG
- ACER-NIEP
- ACER-OEC
- ACER-UNIP
- AHELO Co
- Engineering
- Module A
- Module A N
- Module B
- Module B E
- Module B N
- Module C
- Module C E
- Module C N
- Module D
- Module D E
- Module E
- Module E E

Assessment of Higher Education Learning outcome

September 2014

ahelo@www.oecd.org/

ahelo

(click on the

Who's who

click here to find out more on

generic skills, economics and engineering.

Discipline, higher education and assessment experts from 15 countries have

this list by clicking on the top right of the page you're viewing.

**Instrument
architecture**

Generic Skills

Economics

Engineering

Contextual Dimension

National Context Information

Institution Context Instrument

Faculty Context Instrument

Student Context Instrument

Tuning AHELO / QAA frameworks
Curriculum documents
Accreditation systems
Discipline research

Framework and item development

- Outcome specification
- Document analysis
- Consultation
- Synthesis, review

Framework creation

Item creation

- Gather existing materials
- Item workshops
- Technical review
- Framework mapping
- Adaptation, translation
- Verification

- Qualitative testing
- Quantitative testing
- Operationalisation

Instrument validation

Authentic, hybrid item types
'Above content' reasoning

Translation, adaptation and verification

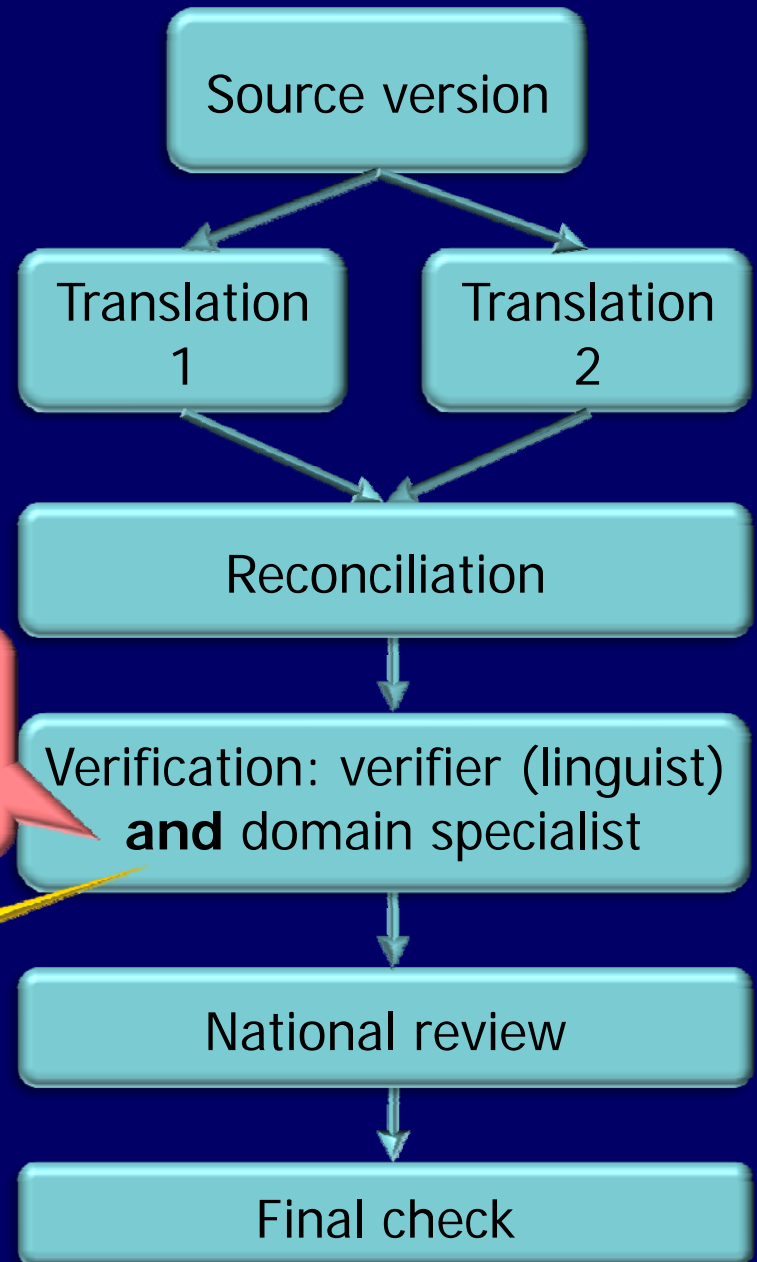
Designed to maintain cross-national comparability of assessment materials

A holistic, robust and flexible approach, linked with item production and validation

Adaptations managed as a continuous process

Native speakers of target language trained to detect specific pitfalls

Economics or engineers who are speakers of target language





**Context
Assessment**

Jon File (Director)



INDIANA UNIVERSITY
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AHELO Technical Advisory Group

- Peter Ewell, United States (Chair)
- Vaneeta D'Andrea, United Kingdom
- Paul Holland, United States
- Motohisa Kaneko, Japan
- Lynn Meek, Australia
- Keith Rust, United States
- Frans Van Vught, Netherlands
- Robert Wagenaar, Netherlands



Generic Skills Assessment



Roger Benjamin (Director)

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Frans Van Vught, Netherlands
Robert Wagenaar, Netherlands

CAE

ACER

chep|s

SONET
SYSTEMS



INDIANA UNIVERSITY
Center for Postsecondary Research



Economics
Assessment

ACER



Thomas Van Essen (Director)

cApStAn
LINGUISTIC QUALITY CONTROL

Economics Expert Group

- Cecilia Conrad (Chair), United States
- William Becker, United States
- Fiorella Kostoris, Italy
- Maria de Lourdes Dieck-Assad, Mexico
- Henriette Maassen van den Brink, Netherlands
- Tatsuya Sakamoto, Japan
- Vladimir Zuev, Russian Federation





INDIANA UNIVERSITY
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Engineering Assessment

Julian Fraillon (Director)



cApStAn^{GM}
LINGUISTIC QUALITY CONTROL

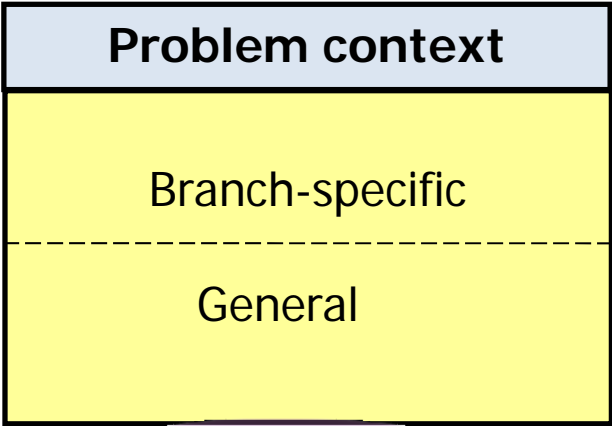


- Robin King, Australia (Chair)
- Giuliano Augusti, Italy
- Mario Gomez, Mexico
- Michael Hoffman, Germany
- Kikuo Kishimoto, Japan
- Johan Malmqvist, Sweden
- Nobutoshi Masuda, Japan
- Jim Melsa, United States
- Lueny Morell, United States



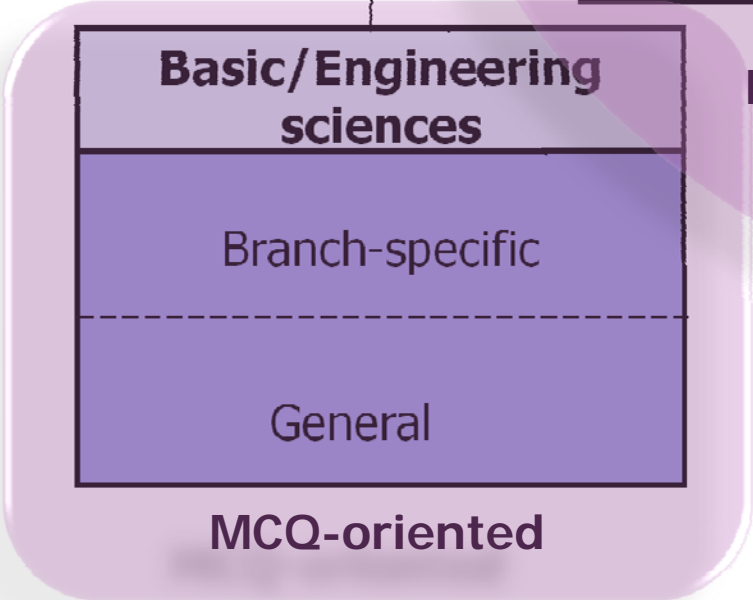
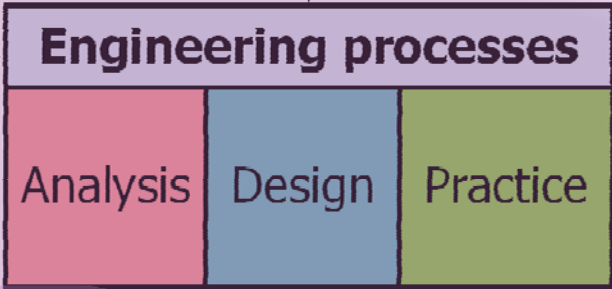
Engineering Expert Group

Engineering Assessment Framework

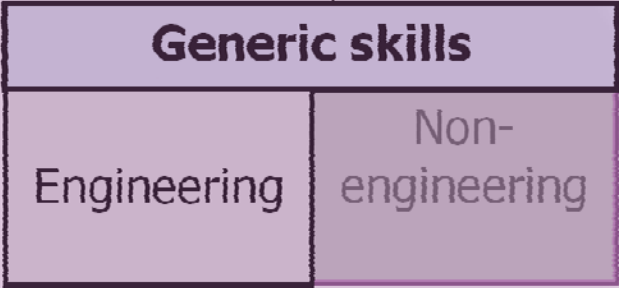


Item situation

Engineering competence



Emphasis on constructed response



Multiple choice item development

Based on Japanese licensing
examinations

Focused on Basic and
Engineering Sciences

40 items selected, revised
and internationalised

Items panelled and mapped



Representative sample of authentic and engaging Civil Engineering contexts



Photographs, diagrams and charts used to stimulate interest and minimise text



Students need to exercise components of Engineering competency

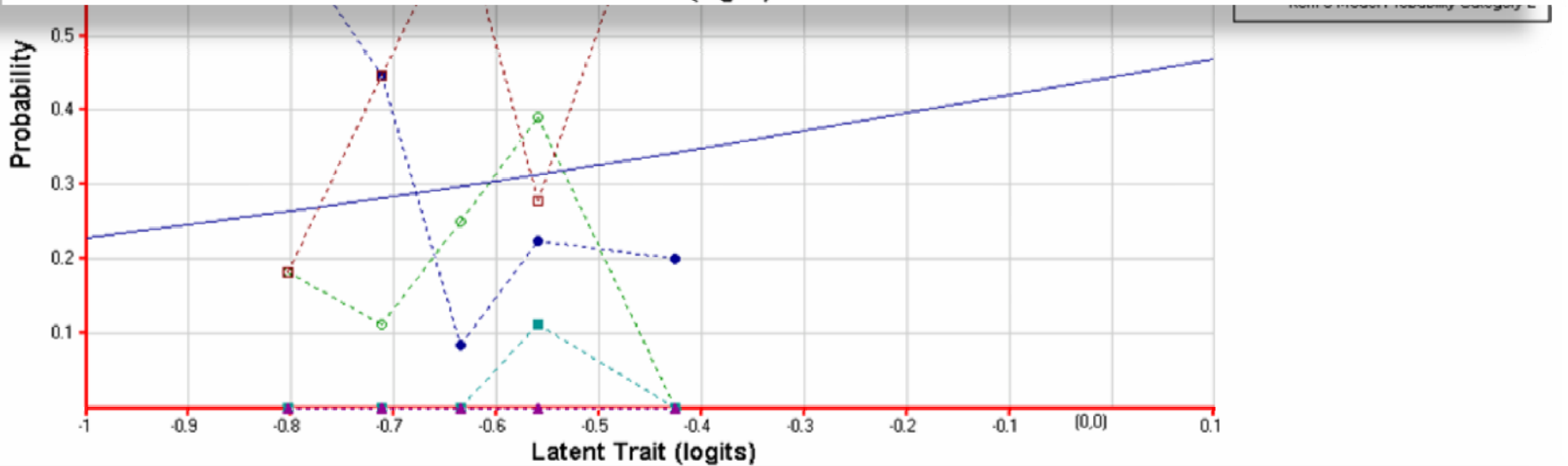
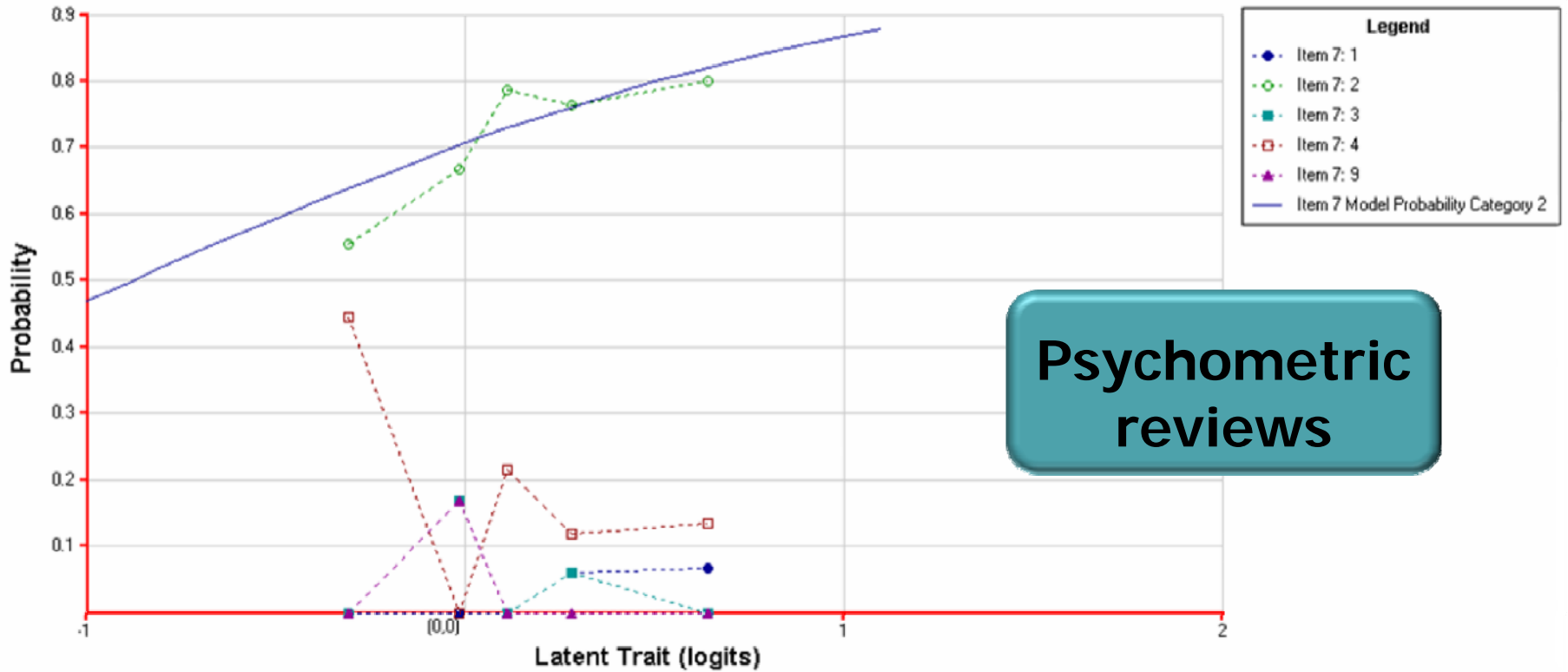


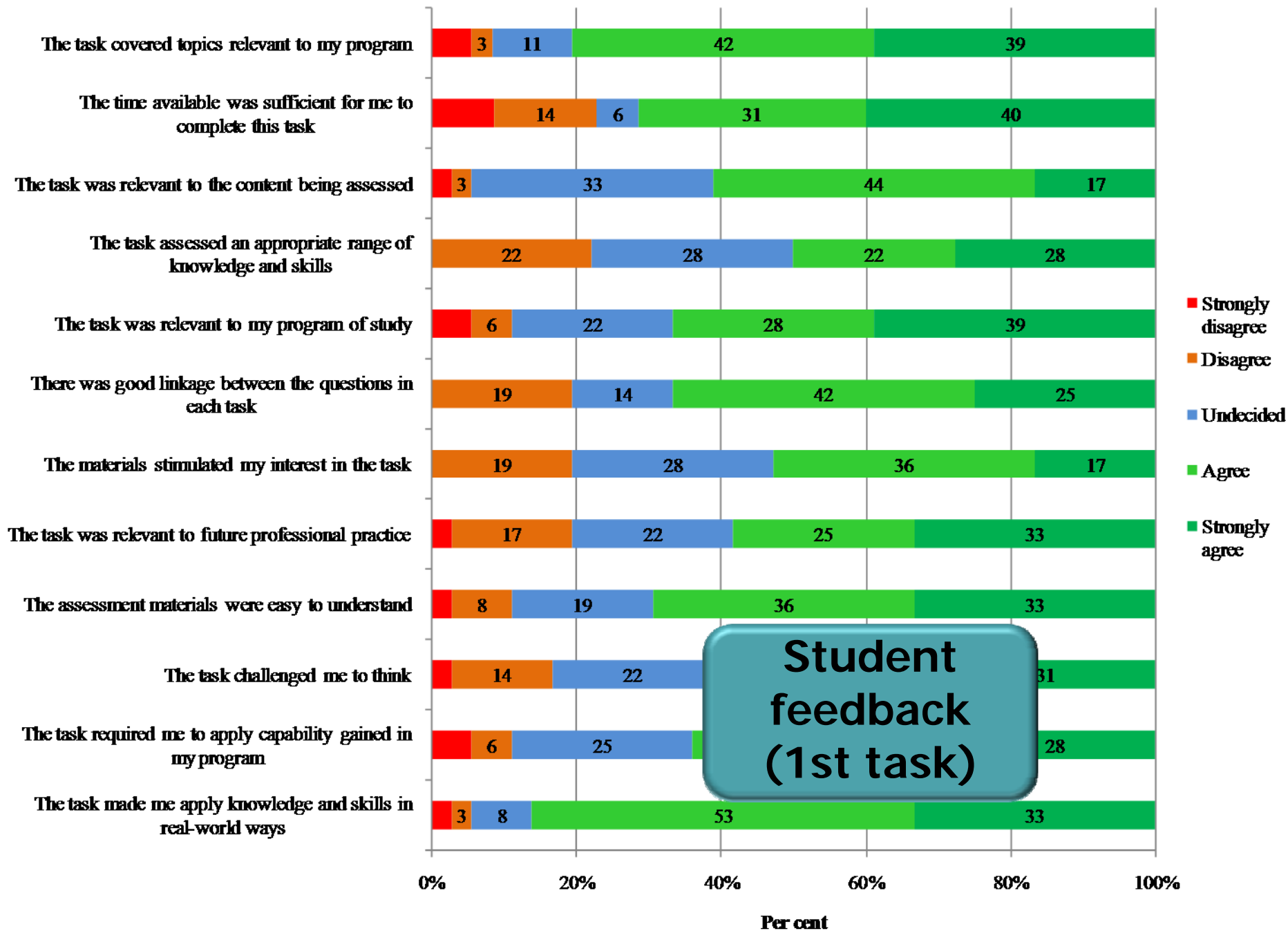
Can they think like an Engineer?



Competencies demonstrated in student responses

**Constructed
response
tasks**





Sample student feedback

The multiple choice items were easy compared to the constructed response task. There should be a better balance.

Some of the options are obviously incorrect, thus making the task too easy.

The diagrams were helpful in understanding the question. Focus on real world situations.

Had not learned much about environmental impact assessment and ethical issues. Very unfamiliar.

Its realistic problems make me to think and understand that the knowledge I learned from university are being applied in real world

Too technical, especially with the levels of assumed knowledge

We haven't touched on sustainable development so these questions were a bit tricky

Interest question which challenges people to think. Real situation for real application was interesting

Made me realise I forget things easily

Engineering Generic Skills

Effective communication and awareness of the wider civil engineering context.

Basic and Engineering Sciences

Knowledge and understanding of underlying scientific and mathematical principles – general sciences; materials and construction; structural engineering; geotechnical engineering; hydraulic engineering; and urban and rural planning.

Engineering Analysis

Using analytical methods to identify, formulate and solve problems.

Engineering Design

Understanding and application of design methodologies to meet requirements.

Engineering Practice

Practical competencies required to solve problems, conducting investigations, and designing engineering devices and processes. Covers non-technical elements of civil engineering practice like professional ethics, responsibilities and the impact of engineering solutions in a global, economic, societal and environmental context.



**Engineering
Assessment**

Further information:
www.oecd.org/edu/ahelo

**Engineering
Assessment
brochure**

Defined engagement cycle established to support growing number of countries, institutions and students who want to take part

Designed sustainable business models for AHELO

**Emerging
insights/findings**

Assessment frameworks and test instruments developed to support multidimensional test/context instrumentation

Established test design, development, translation/adaptation and validation methods

Defined operational workflow and quality control procedures required to support global testing

Forming awareness of how AHELO positions in global contexts

Leadership: International project management, and supporting national teams

Operationalisation: Preparing tests and context instruments for secure online delivery, and training coders

Sampling: Engaging institutions, and sampling faculty and students

Assessment: Supporting national training, managing testing in three strands, managing coding

Reporting: Compiling data products, and country, institution and stakeholder reports

Evaluating: Scientific and practical feasibility, recommendations for full-scale study

**Test
implementation**

Testing and assessment!

**Significant
work to be
done**

Computer-based delivery platform

Training of test supervisors and coders

Sampling students and faculty

Managing and quality assuring test administration

Coding and data verification

Scaling and statistical analysis

Institutional and international reports

How AHELO works

Preparation

- Establish National Centre
- Translate and validate instruments
- Engage institutions
- Train Institution Coordinators
- Prepare for testing

Assessment

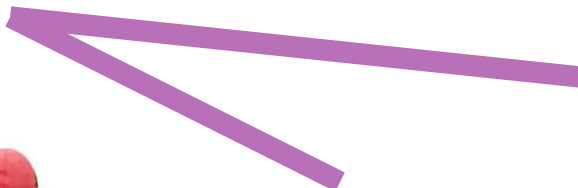
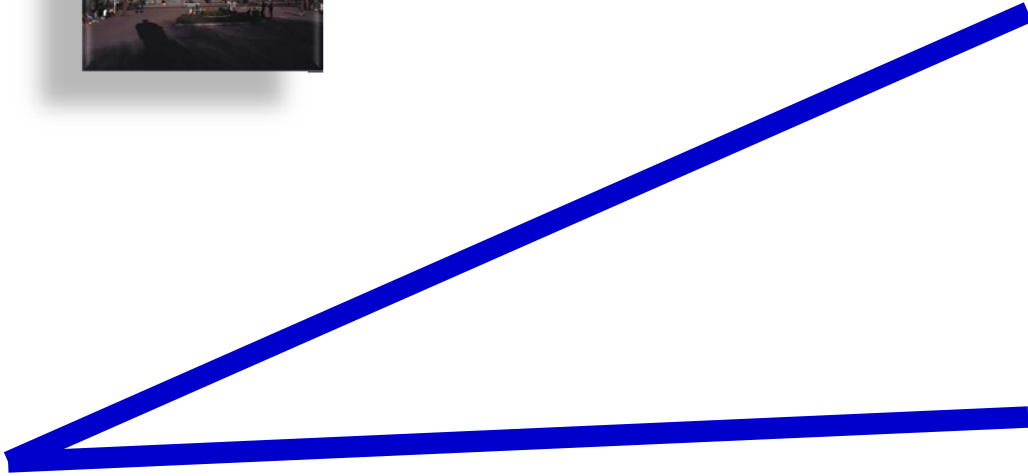
- Select students
- Administer secure test
- Score responses
- Verify and provide data

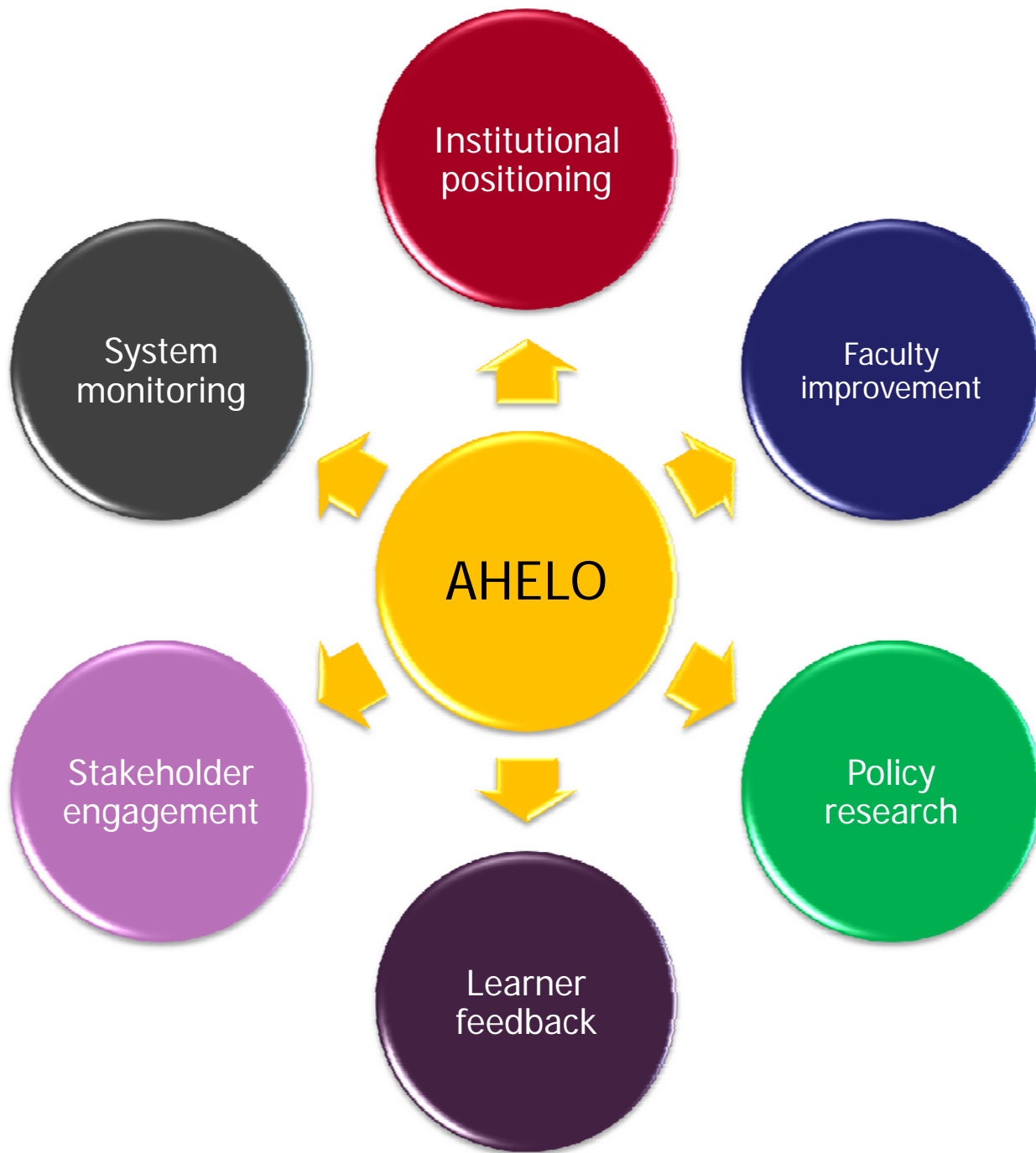
Reporting

- Prepare multilevel benchmarking reports
- Distribute reports to National Centres
- Interpretation for monitoring and improvement



Business models





**Change
horizons**

Australia is at the centre of universal policy

Appearance is dangerous: don't sell academics to marketers

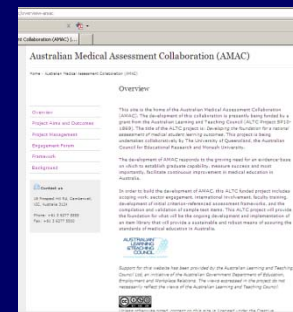
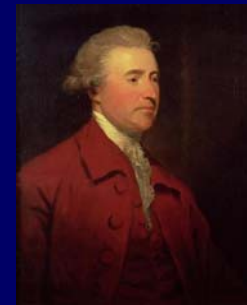
We need to ask critical questions of tests/data

Anti-enlightenment is out of step

Economists and students seek the same

capacity development: institutes, assessment collaborations, benchmarking...

Considerations for Australia



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Statistics
Canada

Statistique
Canada