Assessment of Higher Education Learning Outcomes
Preface

Tomorrow's workforce is crucial to sustaining the wealth and development of nations and the social cohesion of their people. In this evolving global economy, high quality tertiary education is essential to ensuring growth and prosperity. Students need to acquire the right skills to contribute to economic, scientific and social progress. Today, more students than ever before are enrolled in higher education – and both governments and individuals invest tremendous resources to make that happen. To help individuals, institutions and governments enhance the return on that investment, the OECD is exploring the feasibility of an Assessment of Higher Education Learning Outcomes (AHELO). Learning outcomes, as embodied in the knowledge and skills of individuals, are an important predictor for students’ preparedness to thrive in 21st century economies and societies. AHELO provides insights into how reliably such learning outcomes can be measured at the international level and across the diverse spectrum of higher education institutions’ profiles and missions.

Barbara Ischinger
Director for Education
In 2008, discussions among OECD Education Ministers at their meeting in Tokyo focused on evaluating the quality of higher education. After three consultations with international experts, they decided to launch the AHELO feasibility study to provide answers.

For more than 50 years, the OECD has been one of the largest and most reliable sources of comparable statistics as well as economic and social data.

The Directorate for Education has ample experience in this area with projects such as the Programme for International Student Assessment (PISA) testing the knowledge and skills of 15 year olds and the OECD Survey of Adult Skills.
What is AHELO?

The OECD is carrying out a Feasibility Study to see if it is practically and scientifically feasible to assess what students in higher education know and can do upon graduation.

More than a ranking, the AHELO assessment aims to be direct evaluation of student performance at the global level and valid across diverse cultures, languages and different types of institutions.

A full scale AHELO would be a “low stakes” voluntary international comparative assessment designed to provide higher education institutions with feedback on the learning outcomes of their students and which they can use to foster improvement in student learning outcomes.

What is being tested and how is the feasibility study being carried out?

The OECD has been working with a consortium of world experts and teams in 17 countries to develop and administer the test. By the end of 2012, the completion of the feasibility study will help determine if such tests can indeed be developed and successfully administered to students.

Three assessments have been developed to examine the feasibility of capturing different types of learning outcomes. One looks at the generic skills that students in all fields should be acquiring while the other two focus on skills that are specific to disciplines: engineering and economics have been chosen for this feasibility study.
Generic Skills

Students taking this test will need to use critical thinking, analytic reasoning, problem solving and written communication to answer several open-ended questions about a hypothetical but realistic situation and gather the necessary evidence from different sources (letters, maps, memos, etc.). The generic skills test questions are based on an international adaptation of the US Collegiate Learning Assessment (developed by the Council for Aid to Education), as well as multiple-choice questions (developed by the Australian Consortium for Education Research).
Discipline-Specific Skills

In the case of engineering and economics, the focus of the test will be on the capacity of students to extrapolate from what they have learned and apply their competencies in new contexts, rather than replicate curriculum content knowledge.

**Economics**

Subject Competence:
Key economic concepts, microeconomic concepts, macroeconomic principles.

Application to Real World Problems:
Effective application of economic reasoning and methods of analysis to specific topic areas.

Effective use of relevant data and quantitative methods:
Use of quantitative and qualitative data from primary and secondary sources and methods of processing data.

Communication:
Effective communication and explanation of economic arguments.
Independent learning skills: thinking reflectively and critically and to pose and carry out investigations of specific problems.
Engineering

Engineering Generic Skills:

Effective communication and awareness of the wider civil engineering context.

Basic and Engineering Sciences:

Knowledge and understanding of the scientific and mathematical principles underlying civil engineering – 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 engineering problems.

Engineering Design:

Understanding and application of design methodologies to meet specified requirements.

Engineering Practice:

Practical skills and knowledge required for solving problems, conducting investigations, and designing engineering devices and processes. Addresses non-technical elements of civil engineering practice such as professional ethics, responsibilities and the impact of engineering solutions in a global, economic, societal and environmental context.
Contextual Dimension

Along with each of these tests, contextual information is collected from the students themselves, from relevant faculty and from participating institutions’ leaders. Students’ test results can then be linked with information on universities and students. These instruments are designed to identify factors that may help to explain differences in observed learning outcomes of the target population and offer insights for interpretation, especially in terms of institutional diversity.

Value-added measurement

Should a full-scale AHELO survey be launched, it will be important to understand to what extent higher education institutions contribute to student learning outcomes and how well students are learning. Within the context of the feasibility study, a literature review is currently being conducted to explore the various methodological approaches, potential data sources and psychometric evidence with a view to providing guidance in developing a way in which to measure the value-added dimension.
Timing

Phase 1 (January 2010 - June 2011) involved developing the frameworks and instruments, ensuring that they are valid internationally by first testing them on a small-scale.

Phase 2 (July 2011 – December 2012) involves testing students in selected higher education institution in each participating country and analysing the results. Fieldwork has now been completed and data have been collected from over 20 000 students taking part in the tests.

December 2012: end of the Feasibility Study and publication of the first volume (on design and implementation) of the Report by the OECD.

February 2013: Publication of the second volume of the Report (on data analysis and national experiences).

**Feasibility study conference** on 11-12 March 2013 in Paris.

April 2013: Publication of the third and final volume of the Report.

Conclusion: based on the results of the feasibility study, OECD member countries will decide whether to delve deeper into the subject as well as set out steps towards conducting a full-scale AHELO.
Where do we go from here?

The AHELO Feasibility Study will be completed in December 2012 but that is not the end of the story. The Feasibility Study has brought to the surface a number of important broader questions about measuring learning outcomes that would have to be addressed before a full AHELO Survey could be launched, should the feasibility study conclude that an AHELO would be technically and practically feasible.
These deeper questions include:

What are the desired learning outcomes of higher education – and what can/should be measured?

Is the main purpose of an assessment instrument for measuring learning outcomes to underpin accountability, provide data for improvement or enhance transparency – or all of these?

Who or what is really being assessed – the students or their higher education institutions?

Is the purpose to measure the level of competency achieved or to measure the value added from attending a specific higher education institution?

What can an international assessment provide that national or institutional level instruments cannot – and vice versa?

How might international measures of learning outcomes be mis-used?
Who is involved in the feasibility study?

Countries and institutions

Seventeen countries, spanning a wide range of languages and cultures, are participating in one or more of the assessments: Abu Dhabi, Australia, Belgium, Colombia, Egypt, Finland, Italy, Japan, Korea, Kuwait, Mexico, the Netherlands, Norway, the Russian Federation, the Slovak Republic, Sweden, and the United States.

There are about 10 higher education institutions participating in each country.
International experts

A consortium, led by the Australian Council for Educational Research (ACER) and comprising Educational Testing Services (ETS) and the Council for Aid to Education (CAE), is implementing the feasibility study on behalf of the OECD. A range of expert groups have been drawn upon as needed.

Representatives of the higher education sector

AHELO is an open and transparent initiative. The OECD has invited a group of organisations with a stake or interest in higher education to join the AHELO Stakeholders Consultative Group (SCG). Members of this group include, among others, international associations of quality assurance agencies, students, universities or employers. For a complete list of the organisations involved please see www.oecd.org/ahelo.
Sponsors

The feasibility study has been financed by the participating countries and through generous contributions from Lumina Foundation for Education (United States), Compagnia di San Paolo (Italy), Calouste Gulbenkian Foundation (Portugal), Riksbankens Jubileumsfond (Sweden), the Spencer and Teagle Foundations (United States) as well as the Higher Education Founding Council (HEFCE – England) and the Higher Education Authority (HEA - Ireland). The William and Flora Hewlett foundation also provided support for US participation in the feasibility study.

Current Sponsors
The Feasibility Conference

The OECD will host a major, invitation-only conference on Measuring learning outcomes in Higher Education: Lessons learnt from the AHELO Feasibility Study and next steps on 11-12 March 2013 in Paris to present the results of the Feasibility Study, reflect on the deeper questions raised about learning outcomes of higher education and consider the way forward. This conference will take place at the OECD Conference Centre.

Where to learn more

If you would like more information on AHELO please visit our website www.oecd.org/edu/ahelo or contact ahelo@oecd.org to be added to our mailing list and receive our newsletter.

The OECD Higher Education Programme and how to join

The OECD Higher Education Programme (IMHE) is a membership organisation within the OECD Directorate for Education. It brings together institutions of higher education as well as government departments, agencies and other non-profit organisations, to discuss and debate issues concerning higher education management. To find out more and to submit your online application, please visit the Programme’s website at: www.oecd.org/edu/imhe/join.
To learn more on the work of OECD on Education please visit: www.oecd.org/edu

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