

ASSESSING HIGHER EDUCATION LEARNING OUTCOMES SUMMARY OF THE SECOND MEETING OF EXPERTS

Introduction

1. Building on the outcomes of the first meeting of experts on 18 April 2007, the main purpose of the second meeting of experts was to consider existing approaches to the assessment of higher education learning outcomes and to explore the design of a study to assess the feasibility of pursuing such work in an international comparative context.

2. The experts agreed that it is important to develop any international assessment of higher education learning outcomes in a transparent and participatory manner. Higher education institutions and their representative bodies, such as the IAU and the EUA, should be informed about ongoing work. A shared understanding about the purpose of the outcomes assessment, and about what outcomes should be tested would greatly support the programme. The experts stressed that it is also important to consult relevant professional bodies, employers and experts who are working in the area of assessing learning outcomes.

The objectives of an international assessment of higher education learning outcomes

3. The experts began the meeting with reviewing the design and operational implications of the various potential objectives for an assessment of learning outcomes that had been considered at the first meeting, namely: *i*) to inform national policy development, *ii*) to compare learning outcomes across institutions, *iii*) to inform institutional strategic planning, and *iv*) to inform consumer choice.

4. The experts noted that the design of an international assessment would vary depending on the objectives to be pursued and that choices and priorities would need to be established as no assessment could achieve all of the goals equally well. Data to inform national policy development would require cross-institutional comparative data on student learning combined with data connecting student learning with individual and aggregate social and economic outcomes. Data to compare learning outcomes across institutions would require data on the learning outcomes achieved at institutional levels, together with a perspective on the value added by institutions. Data to inform institutional strategic planning would require cross-programme data within an institution as well as cross-institutional comparative data. Finally, data to guide consumer choice would require learning outcomes data, cross-institutional comparative data, as well as contextual data on aspects like costs, time to complete, institutional support, ambiance and the like.

5. The experts recognised that the establishment of these priorities would be a policy choice, and that it was not possible to predict or control the uses to which results would be put, and that technical and operational feasibility would also need to be considered. While, from a policy perspective, data to inform national policy development would probably be most relevant, the experts considered this policy goal a longer-term perspective given the difficulty of obtaining representative samples of higher education institutions across OECD countries.

6. In contrast, the experts considered a comparison of learning outcomes across institutions and/or programmes both a relevant and, at least in principle, feasible goal. However, here also they established

aspects with greater and lesser feasibility in the short term. While it would be easier to assess the “bottom line” of performance of institutions, departments or faculties, in terms of the raw scores of students enrolled in these would attain, it would be more difficult to assess the “value added” by the institutions, i.e. the scores an institution would attain after accounting for the quality of prior schooling or the degree of selectivity of the higher education programmes and institutions. The experts discussed one strategy to achieve this, which would involve the post-hoc collection of data on prior learning as, for example, done in the Collegiate Learning Assessment Project (CLA) or the synthetic linkage of outcome information of incoming students to outgoing graduates, as well as a strategy that would focus the assessment on skill environments that students would typically not encounter prior to university entry. The experts also noted that it would, in a cross-national context, be easier to assess transversal competencies such as analytical reasoning and critical thinking than more discipline-related competencies as the latter would require a highly differentiated assessment strategy and would face considerable challenges to overcome cultural boundaries. However, the experts considered that a main limitation of assessing transversal competencies was that they do not directly relate to the subject-matter competencies that many higher education departments or faculties consider their primary objective. In other words, an approach entirely limited to generic competencies would risk that what is measured becomes too far removed from what goes on in faculties and departments and not capture the competencies that are uniquely the province of the institutions. The experts therefore concluded that a feasibility study would need to cover aspects of both transversal and discipline-related competencies.

7. Successful achievement of the above would be of value in institutional strategic planning insofar as it gave them useful information about strengths and weaknesses relative to other institutions, although the establishment of an intra-institutional perspective would imply significant additional layers of complexity, in particular, the establishment of subject-specific measures that encapsulate the objectives of faculties and programmes.

8. Finally the policy goal to inform consumer choice was, at least methodologically, considered a feasible outcome provided the feasibility study permitted the collection of appropriate contextual data, or at least gave potential students the capacity to relate findings to existing information. The lack of reliable information on teaching and learning in most countries forced consumers to rely on reputational information based primarily on research performance and input factors. No international assessment could hope to provide complete information for all purposes - the aim should be to complement existing information in the most effective and useful way.

Operationalising the assessment of higher education learning outcomes internationally

9. The experts discussed a presentation by staff members of the Education Testing Service and reviewed a number of existing assessments for transversal competencies including the CLA, MAPP, iSkills and the GRE. The experts considered the CLA approach positively because it tests high-level critical thinking and communicating competencies and with a high degree of face-validity.¹ However, the experts suggested adding some shorter test items to the 45-minutes CLA type performance tasks, in order to avoid a lack of data points, rater effects, inadequate sampling of domain and student/task interaction effects. The experts stressed that the goal of the feasibility study was to establish whether an internationally comparative assessment of learning outcomes was feasible in general and that a fully developed assessment of different kinds of learning outcomes was beyond the scope of this initial project. Possible future stages should work on expanding the assessment measures.

1. For a summary about the Collegiate Learning Assessment (CLA) see www.cae.org/content/pdf/CLA.Facts.n.Fantasies.pdf

10. The experts agreed that, in addition to the assessment of transversal competencies, an assessment of subject-specific competencies would also need to be an important component of the feasibility study. However, they also noted that the diversity within subjects posed major challenges for a comparative assessment of subject related competencies. Countries and higher education institutions differ in the foci of their study programmes and use different teaching methods. In addition, study programmes in a subject area tend to become more and more specialized, and the number of interdisciplinary programmes increases. The experts also cautioned that innovative or interdisciplinary study programmes should not be at a disadvantage in an outcomes assessment. One way to minimize such problems was seen in focussing the assessment on students' ability to apply a subjects' core methodology to new problems, instead of testing their knowledge of subject specific facts. One suggestion was to choose contexts in cross-cutting areas of high relevance. For example, tasks relating to problem-solving skills could be set in the contexts of issues of climate change, or tasks relating to economics could be set in the context of poverty alleviation. Some experts concluded that the core methods of a subject rarely change fundamentally so innovative or specialized programmes should not be disadvantaged. Such a focus on the ability of students to apply subject methodology is in line with modern concepts of competencies, which see the ability of students to apply their understanding to new problems as the main outcome of higher education.

11. The experts recognized that shared understandings about subjects' core methodologies might so far not have been established in relatively new subjects, such as biotechnology, or in subjects which traditionally having rather diverse approaches. For this reason, the experts recommended conducting the feasibility study in subject areas, which have a rather stable core of methodologies such as engineering or economics and possibly expand the range of covered subjects over time. The experts concluded that, if subject-specific competencies are included in this learning outcomes assessment, as seems desirable, the project would have to engage in an intensive dialogue with subject representatives in order to establish a shared definition of the core methodologies and desired learning outcomes of this field. Such a process might be challenging at times, but the prospect of comparative data on the learning outcomes in a selected field might make the endeavour worthwhile. The experts mentioned that the shared European descriptions of subject contents developed by researchers in the Tuning project as well as the subject-specific tests in Brazil or Mexico might provide insights for this process.

12. The experts noted that transversal and subject-specific competencies are just two dimensions of the many learning outcomes higher education institutions give rise to. Interpersonal skills, such as the ability to work in a team or a sense of responsibility, as well as aspects of self management, such as persistence or self-efficacy, are increasingly seen as important outcomes of an academic education. Students' motivations, e.g. the entrepreneurial attitudes of graduates of a programme for business administration, could for example be seen as an important outcome of a study programme. Some experts asked what we can learn from non-cognitive outcomes about an institution of higher education.

13. The experts viewed the success of graduates in the labour market and in graduate school as another important dimension for the quality space. Labour market outcomes are important because students, employers and policy makers might be interested in the relevance of the assessed skills and competencies for long term personal and societal development. Some of the effects of an academic education only become observable after a few years when graduates have learned to integrate academic and practical knowledge. Also, a comparison of the results of the learning outcomes assessment with labour market outcomes would be valuable for testing the ability of the learning outcomes assessments to predict labour market success. Some experts mentioned that alumni surveys, which survey graduates' opinions about the characteristics, quality and relevance of their academic education are useful for assessing higher education outcomes. This approach is successfully used in Germany. Another idea was to look at tests, which specifically assess employability such as the Concourse test of the European Union or the tests used by some employers. As with the non-cognitive learning outcomes, labour market outcomes

might not be assessed in the feasibility study due to time and resource constraints, but might be added in possible subsequent phases of the project.

14. The experts stressed that assessments of higher education learning outcomes have to be sensitive to cultural differences. Nations, cultures and institutions differ in their definitions of what are desirable higher education learning outcomes and in their judgments about whether these outcomes have been achieved, e.g. what constitutes a well-written essay. Also, students from different cultural and language backgrounds might understand test questions differently. Special efforts should therefore be made to arrive at shared definitions of assessment strategies. Testing material should therefore be checked carefully for cultural differences in meaning. The experts did not see a general problem with cross-cultural validity and agreed that it is worthwhile to make an empirical test. The experiences from PISA suggest that it is possible to arrive at shared definitions.

Determining relevant units of data collection

15. To get a reasonably reliable picture about the feasibility of an international assessment of learning outcomes, the experts suggested establishing a sample of countries with diverse educational systems and positions about the measurement of higher education learning outcomes. They noted that the translation of the test into additional languages, as well as the training of evaluators, would be very expensive, which would pose limits to what can be achieved.

16. There was agreement that the feasibility study should involve a limited set of volunteering universities or colleges. Some experts recommended including different kinds of HEIs such as research intensive universities, polytechnic institutions or liberal arts colleges. Such a sample is advantageous in that the comparative strengths of different institutional types become more transparent and the method of the outcomes assessment can be tested in diverse contexts. Some experts disagreed with this view and argued that a more homogeneous sample would be more suitable for the feasibility study because it increases the comparability of the results within and across countries. Regardless of the sampling method, institutional classifications such as the Carnegie classification or the ongoing European CEIHE classification were seen as useful for choosing comparable or diverse institutions.

17. Regarding the question of when students should be assessed, most experts argued that testing should be done shortly before the end of the first academic degree, which in most countries would be a Bachelor's degree. This seems reasonable as most students and employers would be interested in what qualifications can be typically expected from a Bachelor's degree holder, regardless of whether it took three or four years to complete the programme. One limitation of this approach is that it is unclear when students in countries without the BA/MA structure should be assessed. An alternative approach is to assess students after a set number of years. Provided that adequate measures are taken to prevent the leaking of test content, the tests can be taken at different times in the participating countries. It should be ensured that the timing does not coincide with major exams. The necessary sample size will depend on the desired statistical significance, the study design and the choice of method.

18. Most experts recommended that results from outcomes assessments should not be compared against an absolute quality criterion, because it is difficult to establish quality benchmarks and such a criterion-referenced approach might be opposed by HEIs. Instead the results should be interpreted in relative terms through a comparison between institutions. The first expert meeting concluded that due consideration should be given to balance an assessment of students at the top end of the performance distribution with an assessment of institutions' capacity to provide baseline competencies. As some experts pointed out in this meeting, a definition of what level of qualification should be assessed and with what degree of differentiation, would be necessary to take forward the design of adequate tests.

19. The experts expected that higher education institutions would be mostly motivated to participate in the feasibility study because the information regarding how their programmes performed in national and international comparison would be useful for improvement processes and to attract students and funds. There was agreement that motivating students to participate in the assessment is an important issue, but that this should be decided by the HEI itself. The experts agreed that, in order to provide for an appropriate coverage of the competency domains, the matrix sampling technique should be used, which would preclude the use of the generation of individual student scores.

Next steps

20. On the basis of the two expert meetings, the OECD will prepare a strategy paper with longer-term perspectives for an assessment of higher education learning outcomes. This paper will address issues related to the selection and number of transversal skills to be measured, issues around the availability as well as the adaptation and translation of existing measures, issues related to the definition of a target population for the assessment, and in addition questions of timing, periodicity and the potential for a trend study, or a truly longitudinal study design.

21. A further expert meeting will be held in Korea on 26-27 October 2007 to review a draft strategy paper for the project and more detailed proposals for a feasibility study.

22. In the meantime the OECD will continue planning for a feasibility study and identify potential countries and institutions which might take part in it.

23. The experts agreed that the summary record of the meeting should be made public at the earliest opportunity.

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