MEASURING COMPETENCES IN HIGHER EDUCATION: WHAT NEXT?

INTRODUCTION

The theme of this conference, “Modeling and Measurement of Competences in Higher Education”, indicates that there is a growing awareness that the measurement of competences should not be restricted to primary and secondary education, but should also enter into the domain of higher education. In this contribution, I will provide a sketch of the current state of large-scale skills assessments and the challenges that lie ahead. I will argue that it is important to link the measurement of competences in higher education to economic and social outcomes, and I will provide a short impression of the kind of information that graduate surveys can provide. I will discuss some of the main implications that can be drawn from these graduate surveys for higher education.

THE STATE OF THE ART

In the last few decades we have seen an increased awareness of human capital as one of the driving forces behind economic development. Research has provided sound evidence that investments in education provide large economic and social returns both for the individual and for society at large. As a result, different actors in society (policy-makers, employers, employees, students) have increasingly invested in education and training as a way of improving the existing stock of human capital.

A development which accompanied this increased interest in education and learning was the need to monitor and assess the stock of human capital. The Organisation for Economic Co-operation and Development (OECD) played a prominent role in this by initiating the so-called Indicators of Education Systems (INES) project, aimed at developing indicators of the input, process and output of education and training. The results of this project are published annually in the publication “Education at a Glance”.

What soon became clear is that education as such is only a poor indicator of the stock of human capital. Individuals of the same level of education show a strong heterogeneity in skills. Likewise, countries that have more or less comparable levels of educational attainment still show large differences in the proficiency levels of different skills. Moreover, skills acquisition does not only take place in education. People also learn through work experience and in daily life, which leads to a further loosening of the link between educational qualifications and the later stock of skills.
This has caused a paradigm shift, from measuring educational attainment to measuring competences or skills. The basic idea is that educational attainment as such may be important, but the driving mechanism behind the effect of education on economic and social outcomes operates through the skills and competences that these educational qualifications represent. A suitable illustration is given in a recent overview by Hanushek and Woessmann (2011). They argue that a net improvement in the literacy scores of 15-year-olds by a quarter of a standard deviation would increase economic growth in OECD countries by almost 300%, or approximately US$125 trillion, by 2090. They show that skills and competences completely account for the projected effect of increased educational attainment on economic growth in OECD countries.

Over the past few decades, a great deal of progress has been made in assessing so-called generic basic skills, mainly in the areas of literacy, numeracy, science and civics. The most well-known examples are international cross-sectional surveys like the Trends in International Mathematics and Science Study (TIMMS), aimed at assessing the mathematics and science levels of students in primary and secondary education, the Progress in International Reading Literacy Study (PIRLS), aimed at assessing the literacy levels of primary school students, the Program for International Student Assessment (PISA), aimed at assessing the literacy, numeracy and science levels of 15-year-olds, the Civic Education Study (CIVED) and its successor the International Civic and Citizenship Education Study (ICCS), aimed at assessing the civic competences of secondary school students, and the International Adult Literacy Survey (IALS) and its successors the Adult Literacy and Life Skills Survey (ALL) and the Program of International Assessment of Adult Competences (PIAAC), all aimed at assessing the literacy and numeracy levels of 16 to 64-year-olds. However, there are also important national examples of surveys and panel studies that aim to assess the stock of basic skills, like the U.S. National Longitudinal Survey of Youth (NLSY), the Collegiate Learning Assessment (CLA), the Longitudinal Survey of Australian Youth (LSAY), the Dutch Secondary Education Cohort of Students (VOCL) or the recent German National Education Panel Study (NEPS).

As indicated above, all of these surveys assess generic skills. Up to now, no comparable surveys of this kind have been carried out in order to assess vocation-specific skills (one exception is the Mexican Higher Education Exit Assessments, see contribution of Rafael Vidal Uribe in this volume). Nevertheless, there is clear evidence that these specific skills are just as important as general skills (Bishop, 1995; Van der Velden, 2006), especially for economic outcomes. They also constitute a large part of what is being learned in vocational education and higher education. Based on the notion of the importance of specific skills, feasibility studies have been carried out to study such skills in vocational education and training (PISA-VET, Baethge et al., 2006) and higher education (see the contribution by Karine Tremblay of the OECD on the Assessment of Higher Education Learning Outcomes (AHELO) project in this volume). The main reason that assessments in specific areas have not yet become widespread is the sheer variety of specific domains that can be distinguished. While it is easier to define a