

PRESENTATION OF ISSUE 13 TRENDS IN THE INTERNATIONAL ASSESSMENT OF LEARNING OUTCOMES IN VOCATIONAL AND HIGHER EDUCATION

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We are pleased to present the issue of the JoSPoE dedicated to the initiatives for the international assessment in vocational and higher education. The choice of the topic is determined by the increasing attention to the learning outcomes assessment at both the national and supranational levels, caused by a need for the rise of efficiency and international competitiveness of national educational systems by providing objectivity and comparability. There is a broad discussion, various approaches and assessment tools are under development as part of this transformation. We are proud of the fact that the leading experts from different countries are participating in this issue, as well as that the issue reveals current projects and developments within this topic.

As an introduction, we would like to draw attention to the historical context of developing the assessment of educational outcomes and to the trends that led to the current state of affairs, as well as provide a brief overview of the articles included in the issue.

Assessment of educational outcomes is one of the key topics in the history of the development of educational systems. The first regular grading system originated in China during the Western Zhou Dynasty (1027–771 BC) and served to select civil servants for positions. The assessment system in China has continued to evolve over the next centuries to improve the professionalism of civil servants and build social lifts (Min & Xiuwen, 2001). However, the assessment systems of Ancient and Imperial China were not destined to spread widely around the world.

Later, starting from the IXth century, higher education institutions began to appear in the territory of the Arab world and Europe. Such organizations have developed their student assessment mechanisms. At the same time, due to the high degree of autonomy, the assessment systems differed among universities. Also, just a narrow segment of the population had access to education. The transition from elite to mass higher education systems was gradual from the early XXth century and became predominant in a global context by the 1980s (Cantwell, Marginson & Smolentseva, 2018). Mass higher education became very diverse – from traditional liberal (universal) higher education to a more narrow professional one (Carnoy et al., 2013). In this regard, educational systems faced such needs as the formation of criteria for the training quality, bringing educational standards in line with the labor market requirements, implementation of admission and release procedures at higher educational institutions. The establishment and dissemination of professional examinations became one of the strongest factors for the growing attention to objective and comparable assessment of learning outcomes.

At a certain point, educational systems began to strive to standardize assessment tools. The first third of the twentieth century marked the beginning of using standardized objective testing to measure educational outcomes in higher education. Already in 1916 in the USA, students were tested in arithmetic, spelling, reading, and English, using developed tests, procedures, and scales, as well as statistical processing (Shavelson, 2007, p.6). Note that during the period of strengthening

of national states, the standardization of assessment tools, as a rule, took place within countries. However, several trends have determined the need for the discussion of an international comparable system for assessing knowledge and skills.

First, universities became a part of the globalization process. They started to look beyond national boundaries for effective practices, modern curriculum, etc.

Second, growing international mobility required comparable signals about the readiness of the students for the next education level or the international labor market.

Third, competition in education has become a central aspect for educational institutions as it is closely related to the global economy principles. The situation of competition is also strengthened by international rankings, which significantly affect the direction of flows of international students, the prices of educational services, and the attraction of leading researchers. In this sense, the movement of globalization in recent years has strongly influenced higher education policies around the world and, in particular, higher education institutions. The pursuit of being a “world-class university” makes a comparison of students’ learning outcomes one of the key issues for the conceptual policies of universities around the world (Yamada, 2014).

Fourth, the supranational policies in education have become one of the factors of global education landscape transformation. The activities of international organizations (UN, OECD, the World Bank, etc.) influenced the interest in the objective measures of the impact of the international development activities (Valle, 2013).

As a result of these trends, there has been a significant transformation of the systems for quality assurance and assessment of learning outcomes over the past decades, which led to the harmonization of educational systems. The Bologna Process is a striking example in this regard. The following aspects can be distinguished as part thereof, where educational outcomes play an important role:

- Approval of a system of easily comparable degrees. Using learning outcomes as a basis for comparing qualifications between universities, employers, and qualifications assessment organizations. In this regard, the European Qualifications Framework was developed.
- Facilitating student mobility. The description of qualifications through learning outcomes contributes to their transparency and comparability, which facilitates student exchange, due to the ability to compare educational programs in different institutions.
- Establishing a credit system. These changes have led to the emergence of various mechanisms that are “manifestations of the global standards movement”. The ECTS credit system serves this purpose.

In connection with the described processes, the composition of the subjects involved in the formation of methods for assessing educational outcomes has changed. Previously this was done at the level of individual universities and national bodies. Today the agenda is also influenced by the international expert community and international organizations. International projects are emerging to assess educational outcomes. Their key issue is the quality, as well as the impact of higher education.

One of the symbols of emerging international cooperation for assessing learning outcomes is the OECD Assessment of Higher Education Learning Outcomes (AHELO) research project being implemented from 2009 to 2013. In total, 23,000 students and 5,000 faculty members from 250 educational institutions from 17 countries (or more precisely, educational systems, as some of the participants were small provinces or regions within the country), including from Russia, the USA, Australia, Japan, took part in the field studies.

AHELO aimed to assess the performance of undergraduate students in their final year of study, taking into account different cultures, languages, and institutional differences. The study was conducted to identify methods for assessing undergraduate learning outcomes in effective and internationally comparable ways (Yamada, 2014).

The implementation of the AHELO project reflects the growing desire to form international standards and metrics for assessing the educational outcomes of undergraduate students. However, the study did not begin to be held regularly like PISA, which may indicate significant difficulties associated with conducting an international assessment of educational outcomes. As a key barrier, the authors distinguish a too wide variety of educational programs at universities around the world and, as a consequence, the educational outcomes required at the end of the studies (OECD, 2013).

Initiatives for international assessment of educational outcomes are also emerging in vocational education. In this regard, the WorldSkills International movement can be noted. Started as a national initiative in the 1940s in Spain, the WorldSkills Project today covers 85 member countries participating in international competitions for young professionals, usually held every two years in different countries of the world.

A growing number of examples of international comparative assessment of the learning outcomes in higher and vocational education manifests the trend. This trend emerges in parallel with the trend toward the shift in emphasis from the learning process to the educational results of students, that is, to what students should be able to do at the end of the educational program on the level of universities and national systems. This approach is also called a results-based approach or competency-based learning (Kennedy, 2006). In the transition to competency-based learning, the task of university administration and teachers is to ensure consistency between the educational process, methods and criteria of assessment, and learning outcomes. This link between teaching, assessment, and learning outcomes helps make learning more transparent (Kennedy, 2006).

Focusing on student learning results represents a paradigm shift in educational philosophy and practice (Tam, 2014). Student learning outcomes are becoming a new indicator of institutional excellence and the education system's effectiveness. However, universities often lack good assessment instruments. Assessment should become more inclusive, equality-oriented, and relevant to all target groups of students, which are becoming more heterogeneous and international.

However, the existing assessment system is in dire need of revision and innovative development (Coates, 2018). According to data collected in the course of one of the projects organized by the National Institute for Learning Outcomes Assessment (NILOA) in the United States: first, teachers of higher educational institutions do not have adequate information about the level of competence development among graduates of their universities, as well as about what competencies they should develop in principle, and second, universities do not communicate information about the educational achievements of their graduates to key stakeholders (Nunley et al., 2011).

Atkins (1993) lists the following drawbacks of current assessment practice:

- Lack of consistency in the criteria used to assess educational outcomes between subjects, within-subjects, between institutions, and within institutions;
- Assessment criteria used by educators are often subjective and biased, although educators are mostly unaware of this;
- There is no consensus among teachers on the criteria for assessing educational outcomes; external experts involved in the assessment (for example, labor market representatives) are

usually not educational program developers; neither teachers nor external experts are proficient in assessment methodologies;

- Few teachers consider factors that can influence assessment outcomes;
- New forms of assessment are subject to the same distortions as formal exams;
- In many universities, the approach to assessment remains conservative due to the low literacy of the organizers regarding the requirements for an objective assessment system, although there are exceptions.

Therefore, the systems for assessing the educational outcomes of students currently require improvement. In this regard, the issue pays special attention to the process of transforming the approaches to the learning outcomes assessment. H. Coates, together with L. Liu, J. Zhang, F. Jiang, D. Zhang, and S. Godinho, introduces the ‘smarter learning’ initiative, spotlights reforms required to achieve underpinning next-generation forms of assessment, and articulates feasible steps ahead. The argument driving this paper is that learning is becoming more valuable, that improving learning hinges on assessment reform, and that such innovation will yield major productivity advances for higher education and broader communities.

U. Schwabe and E. Braun in turn argue that policymakers and researchers have shifted to using certificates to capture educational attainment, focusing on competence and performance instead. In their paper, they describe the shifting research paradigm in the context of political agenda-setting and give some examples from different disciplinary perspectives to illustrate the potential of interdisciplinary research.

H. Braun and K. Borowiec focus on the promotion of liberal education through the study of critical thinking. The paper outlines the design of a comprehensive, longitudinal study for the development of critical thinking and related constructs in several liberal arts institutions.

With the shift to competency-based learning, the emphasis on soft skills is gaining momentum in modeling and measuring learning outcomes (Coates & Mahat, 2014). To this end, there is an urgent need to develop tools that allow for fair and reliable assessment of students' competencies, key learning outcomes in higher education (Zlatkin-Troitschanskaya et al., 2015). Traditionally used assessment models, including oral examinations, multiple-choice tests, problem-solving, etc. are more suitable for assessing students' knowledge of the material and do not allow to fully assess the developed competencies. That is why this issue provides articles where the authors describe modern trends in the development of tools for assessing students' educational outcomes.

O. Zlatkin-Troitschanskaia, S. Brückner, J. Fischer, D. Molerov, and S. Schmidt give insights from the BRIDGE collaborative research project, based on previous work of the researchers in the international projects AHELO CLA+, iPAL, CORA, KoKoHs, and ASCOT+. In this paper, they showcase the longitudinal study design and conceptual and assessment framework of the newly developed innovative tools to measure and promote generic and domain-specific online reasoning among young professionals in medicine, law, and teacher education.

M. Toepper, O. Zlatkin-Troitschanskaia, and D. Brauenheim presented a meta-study of competency acquisition in higher education based on the 10-year research program “Modelling and Measuring Competencies in Higher Education (KoKoHs)” (2011-2020), where more than 100 competency models and corresponding tests were developed.

N. Ronderos, R. J. Shavelson, D. Holtsch, O. Zlatkin-Troitschanskaia, and G. Solano-Flores propose a conceptual framework for adapting performance assessments of critical thinking for international studies. The framework differentiates between two stages and three adaptation designs.

This issue also includes two papers on the assessment of learning outcomes in vocational education.

F. Dudyrev, O. Romanova, and V. Maltseva provide an overview of practices and tools for assessing vocational skills and vocational education and learning outcomes in education and cover such issues as part of the current practices and challenges in measuring vocational skills and learning outcomes in international (PISA-VET, WorldSkills), national (cases of Germany and Russia), labor market- and industry-driven initiatives.

J. Shackleton and S. Messenger focus on the WorldSkills International (WSI) and their paper plots the journey of the project to strengthen and embed transversal skills within its standards to ensure the currency of the Competition and more widely drive global skills development forward. They provide the WSI profile overview as an organization, consider transversal skills with a comparison of how they are classified and defined, pay attention to the WorldSkills Occupational Standards, analyze the integration of transversal skills in national curricula, raise questions why this may be challenging, and what initiatives are underway to overcome this.

We thank everyone who contributed to this issue. Primarily the authors of the articles, as well as the reviewers and editorial team of JoSPoE. We hope that this issue will be useful for researchers and practitioners and will serve to stimulate the discussion on the development of approaches to the international assessment of learning outcomes in higher and vocational education.

REFERENCES

- Atkins, M. J. (1993). *Assessment Issues in Higher Education*.
- Cantwell, B., Marginson, S., and Smolentseva, A. (Eds.). (2018). *High participation systems of higher education*. Oxford University Press.
- Carnoy, M., Loyalka, P., Dobryakova, M., Dossani, R., Froumin, I., Kuhns, K., ... & Wang, R. (2013). *University expansion in a changing global economy: Triumph of the BRICs?* Stanford University Press.
- Coates, H. (2018). *Next Generation Assessment*. Melbourne: Online Education Services.
- Coates, H. (2019). Assessing learning outcomes in vocational education', in S McGrath, M Mulder, J Papier & R Suart (eds), *Handbook of vocational education and training: developments in the changing world of work: volume 2* (pp.1313-1328). Cham: Springer Nature Switzerland.
- Coates, H., and Mahat, M. (2014). Advancing student learning outcomes. *Higher education learning outcomes assessment: International perspectives*, 15-31.
- Gosling, D. and Moon, J. (2001). *How to use Learning Outcomes and Assessment Criteria*. London: SEEC Office.
- Kennedy, D. (2006). *Writing and using learning outcomes: a practical guide*. University College Cork.
- Min, H., Xiuwen, Y. (2001). Educational Assessment in China: Lessons from history and future prospects. *Assessment in Education: Principles, Policy & Practice*, 8(1), 5-10.
- Organisation for Economic Cooperation and Development. (2013). *Assessment of Higher Education Learning Outcomes Feasibility Study Report: Volume 2 – Data Analysis and National Experiences*. Paris: OECD.
- Shavelson, R. J. (2007). *A Brief History of Student Learning Assessment: How We Got Where We Are and a Proposal for Where to Where to Go Next*. Association of American Colleges and Universities
- Tam, M. (2014). Outcomes-based approach to quality assessment and curriculum improvement in higher education. *Quality assurance in education*.
- Valle López, J. M. (2013). Supranational Education: a new field of knowledge to address educational policies in a global world. *Journal of supranational policies of education*, 7-30.
- Yamada, R. (2014). Comparative analysis of learning outcomes assessment policy contexts. *Higher Education Learning Outcomes Assessment: International Perspectives*, 33-48.
- Zlatkin-Troitschanskaia, O., Shavelson, R. J., & Kuhn, C. (2015). The international state of research on measurement of competency in higher education. *Studies in Higher Education*, 40(3), 393-411.

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