Abstract

Technological innovations, globalization and a highly peripatetic workforce have created a need for universally recognized educational credentials. Moreover, the dynamic economic, political and social changes that innovations have brought about have made lifelong learning a paramount issue. While in the 1990s the learning focus was on vocational skills, in the twenty-first century lifelong learning has become a much more holistic experience. Learning competencies no longer refer to just occupational skills but also include personal growth, social and team interactions, management training as well as individual autonomy. While ICT is still an important component, the context is now much broader and includes socio-political, psychological and educational dimensions that recognize that individuals are not solitary beings but interact with society and organizations. This paper looks at some EU initiatives, especially the EQF and the LQF, the Latvian Qualifications Framework that is derived from the EQF. It also looks at some American initiatives where direct competencies assessment is currently in operation at about 5% of the higher education institutions. The author concludes that while important steps have been taken to create universally recognized education assessment criteria for lifelong learning, these criteria at present do not have universal validity. Moreover, they are still too vocationally and business orientated. More needs to be done to develop cognitive learning abilities to build relevant interactions between theory and practice.

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1. Introduction

Lifelong learning is probably as old as civilization, but at the end of the 20th century because of globalization and technological innovations the term assumed a new significance and became linked to skills development and competency building to last throughout the human lifecycle. While in the 1990s the focus was more on upgrading individual skills, in the twenty-first century competencies have become much more inclusive. While ICT skills are still an important component, the context is now much broader and includes socio-political, psychological and educational dimensions that recognize that individuals are not solitary beings but interact with society and organizations. In the twenty-first century lifelong learning is viewed not just as competency and occupational skills but also personal growth and social skills such as successfully participating in teams and learning effective management capabilities.

The benchmark study for this new holistic thinking was the 1996 UNESCO report The Treasure Within (commonly known as the Delors report) that clearly moved lifelong learning beyond skills retraining and recognized its broad range of human capacities. The report proposed a holistic approach to lifelong learning that included the four pillars: “Know,” (including the “tools” numeracy, literacy, and life skills), “Do,” (applied learning, critical thinking), “Live Together” (understanding cultural diversity, tolerance, learning to interact positively with others), “Be” (developing an autonomous human identity). The report had wide-reaching implications for the future development of lifelong education, especially the notion that competencies needed to be nurtured throughout a person’s lifetime.

2. European initiatives

In Europe, the UNESCO Delors report was followed by other educational initiatives. In 2005 the Organization for Economic Cooperation and Development (OECD) issued the DeSeCo (Definition and Selection of Key Competencies) report that identified the key competencies for lifelong learning. It was administered by the Swiss Federal Statistical Office and provided support by the American Departments of Education and National Center for Educational Statistics (DeSeCo Background). The Americans as well were developing lifelong learning initiatives at that time. The DeSeCo competencies were modeled on the Programme for International Student Assessment (PISA) that is also an OECD programme. The DeSeCo competencies created a framework for identifying key competencies, a method for demonstrating their interdependence, and an approach for identifying and adding new competencies, recognizing that change and reformulation are a necessary part of competency criteria design.

Moreover, the framework provided a standard for assessment. The competencies were classified in three broad, interrelated categories:

- Use tools interactively (e.g. language, technology);
- Interact in heterogeneous groups;
- Act autonomously.

These categories became the basis for identifying and mapping key competencies. The EU in an effort to establish common criteria among the diverse qualification standards of its new member nations laid out a framework that identified eight key competencies:

- Communication in the mother tongue;
- Communication in foreign languages;
- Mathematical competence and basic competences (sic) in science and technology;
- Digital competence;
- Learning to learn;
- Social and civic competences;
- Sense of initiative and entrepreneurship;
- Cultural awareness and expression.
These key competencies are intended to shape the knowledge, skills and attitudes of EU citizens and are recommended to the EU countries as strategies to be incorporated in a lifelong learning context. They are to be treated as interdependently linked, and they emphasize critical thinking, creativity, initiative, problem solving and similar learning attributes.

The European qualifications framework (EQF) is based on the DeSeCo key competencies and those that were expanded by additional EU legislation. The EQF is intended to serve as a standard for the EU nations to classify their education systems according to its standards, especially in the lifelong learning context. Many EU nations have formulated their own National Qualifications Standards (NQF) to correspond to the EQF criteria. In Latvia it is known as the Latvian Qualifications Framework (LQF). The EQF descriptors indicate 8 levels of learning, starting at the elementary level up the expert level, level 8. In Latvia, like in other EU countries, the qualification framework also consists of 8 levels of learning; 8 being the doctoral programme. The 8 learning levels have corresponding descriptors for outcomes at each stage, and the acquired knowledge, skills and competencies gained. The important difference between skills and competencies in this context is that competence refers to the mastery of a certain knowledge level, while skills denote the specific requirements needed to master a particular level of knowledge. Their relationship is interactive and link theory to practice. Yet EQF and its national derivatives do not indicate how the “8 Key Competencies (communication in the mother tongue, etc.)” are to feed into the descriptor levels. They are listed separately and the interaction is not diagrammed. These describe the behavioural and social change that the learning process brings about but not how it impacts on further learning or how the various levels interact.

The area in which the EQF and the corresponding NQFs have made real gains is in the area of “Prior learning”, specifically in the area of vocational skills. In Latvia, amendments to the Vocational Law (1999) went into effect 1 July 2010 that gave legal recognition to skills and knowledge gained outside a formal education institution for levels 3-4. Aspirants to this level of knowledge must pass a qualifying exam with a grade of no less than “5.” Successful candidates receive a certificate from the State Education Qualify Service that validates their vocational education for those levels of training. The certificate also allows successful candidates to continue on to levels 5-7 in a formal training program. As far as university education is concerned, a single EQF standard that would include all the EU nations remains an elusive ideal. The older EU nations are reluctant to accept university degrees from the new EU nations. It is often the larger countries such as Germany and Italy that are resistant to the change fearing over-penetration of their job markets or too rapid transformations of their education systems that may cause instability. This resistance by the older EU nations has put the brakes on developing a single EU standard for university education. Yet it is important that a single standard has been recognized if not yet fully implemented. In the meanwhile, many of the EU nations have formulated their own NQFs. The debate about standards continues and is global.

3. American initiatives

In competency assessment, the United States is in the forefront. Giving credit for “prior knowledge” has become a part of American Higher Education assessment criteria although private organizations, businesses and government have applied this tool for some time. In Europe “competency” for the most part still means “skills” and is applied mainly for vocational training. Although the EU has developed the European Qualifications Framework, it is still mainly vocationally orientated. Yet globalization, the rapid changes in workforce performance requirements has created demands also in Europe that lifelong learning is recognized and that a single, generally recognized criteria are applied to measure intellectual growth and job performance. The most vocal critics of European educational system have been Organization of Economic Cooperation and Development (OECD) and the World Bank, organizations that have real clout for demanding change.

In the United States efforts are underway to remap general education competencies that give credit for Prior Learning, including MOOCs. The American education landscape is a mosaic of decentralized educational organizations and accreditation associations (there are 7 regional ones in the United States). In this montage of organizations and interest groups, two organizations have emerged as agenda setters, Bill and Melinda Gates Foundations and the Lumina Foundation, who often work closely together. Their significance is based on the fact that they have Present Obama’s ear. President Obama has asserted leadership in education. It is a Democratic priority, but Obama is especially committed to this goal. He regards it as a priority to make American students not
only globally competitive but also to assert American global educational leadership. His methods include making
college more affordable, doubling Pell Grants – popular federal needs based financial aid program – and reducing
student loans and levels of debt. Moreover, Obama is an advocate of awarding student competency based credit,
including prior learning and MOOCs. It fits his goal to boost college degree completion rates, and he is considering
making federal grants to higher education institutions contingent upon graduation rates\textsuperscript{10}. And he is supporting
Lumina Foundation efforts to promote direct assessment in higher education that has given the organization
significant clout.

The Lumina Foundation’s Degree Qualifications Profile (DQP) is an important model for assessing competency
in the United States. Lumina is attempting to nudge the Higher Education Institutions in the United States to develop
a framework of competencies as exists in Europe, Australasia, and Central and South America\textsuperscript{11}. It represents an
effort to identify and precisely define the learning outcomes that are expected at each level of higher educations. The
current picture indicates that what American students purport to know falls far short of employer, policymaker and
education leaders’ expectations. Lumina is trying to bring order to this credential uncertainty; to get American
universities to define clear and measurable learning outcomes. To date, only a few universities in the United States
have developed a clearly functional DQP, and Lumina’s goal is to develop clearly recognizable globally acceptable
DQP standards\textsuperscript{11}.

Lumina’s DQP provides competency assessment criteria for the Associate (AA, a 2 year program), BA, BS and
MA and MS degrees. Doctorates are not included at this time, nor are PhDs because they require specialized
research skills; although professional doctorates such as medicine and law may be proposed later\textsuperscript{12}. Lumina’s DQP
clearly makes a nod to the Bologna process and the European EQF; they are noted in the text of the draft report and
in the bibliography\textsuperscript{12}. Lumina’s DQP shares with the EQF and its national derivatives the aim to clearly identify and
measure learning outcomes that have global application. Yet there are some notable differences. For one thing,
Lumina adds the word “proficiency” as a stage in the assessment process. “Proficiency” in Lumina’s context means
all the skills and knowledge that was learned in the process of acquiring an academic degree; while “competency”
means the learned skills and knowledge within the context of a specific course\textsuperscript{12}.

As previously noted, at this point there are no criteria for assessing the doctorate, as exists in the EQF’s Level 8
“knowledge at the most advanced frontier of a field of work”\textsuperscript{13}. There are also other differences. EQF and its
national derivatives, for example, as Latvia’s LQP – as derived from the EQP – gives the descriptors knowledge,
skills, and competence for each of the 8 levels; in other words, the theoretical and practical knowledge required for
each level of competence, and competence here is the specific learning outcome for each level and not a
“proficiency” as in the DQP. And this is not merely semantics, in a global context terms need to match to be certain
that everyone is speaking the same language.

Lumina’s DQP learning matrix is much more inclusive. It has matched Intellectual skills on a grid against the
degree level proficiency to reflect an integrated educational experience where each level builds on all the levels that
came below it\textsuperscript{12}. Under the column “intellectual skills” are listed analytical inquiry, quantitative fluency, and
communicative fluency; skills that would match the EQF competencies levels; yet added are categories such as
ethical reasoning and engaging in diverse perspectives, quantitative fluency, communicative fluency that matches the
social and civic competences of the EU Key Competences although the periodical Change reports that “ethical
reasoning” was removed from the last draft of the DQP (December 2013). The DQP grid matches the intellectual
skills against the proficiency areas where an individual will demonstrate his/her proficiencies such as specialized
knowledge (the specialist expert arena); applied and collaborative learning (working in teams), and civic and global
learning (being globally competitive). The American and European skills are roughly matched, even if the
semantics are not. Can they be brought closer together to speak the same global language? It will take time, but at
least at this point, it is understood that there needs to a global language of educational standards to achieve global
recognition for learning credentials and for individual nations to remain globally competitive.

The DQP is a framework, a guide for higher education development; it is not a rigid system and, it is still in the
evolutionary stages. To date, more than 400 higher education institutions in 45 states have been involved in trial
attempts to use the system and give feedback\textsuperscript{12}. They have represented a cross-section of American higher education:
public institutions, private non-profit and private for-profit ones (Change Nov-Dec 2013). The majority were funded
by Lumina (Change Nov-Dec 2013). While 34% of American Institutions said that were involved at some level with
the DQP assessment integration at their institution, less than 5% had actually redesigned assessment to fit the DQP
framework. Those that actually had included University of Nebraska at Lincoln, the College of William and Mary, Western Governors University, and the California State University System\textsuperscript{14}. Moreover, there were a few higher education institutions that had developed interesting assessment projects of their own (Change Nov-Dec 2013).

One of the most ambitious was Lipscomb University located in Nashville Tennessee, a private liberal arts Christian college. Entering students may request a daylong Prior Learning Assessment. It costs students who submit to this rigorous evaluation process $1,500, but most students feel it is well worth it because they have a chance to earn as much as 30 credits towards their diploma (the traditional USA BA / BS diploma is 126 credit hours). It also gives them a chance to gain recognition for their previous learning and experience. The undergraduate program is centred on CORE competencies that identify such traits as Innovation and creativity, problem solving, communication and similar competencies. The accredited competencies are then integrated into the concentrations of psychology, business or education – the available learning fields at the college that the students may select to study. During the course of students’ education, the competencies become more developed and professional. They are observed and assessed by certified assessors, professionals and non-university operatives\textsuperscript{15}. The students are assessed by badges and not grades.

The badges identify the CORE categories (e.g. personal, interpersonal, management, the competency (using the Lumina categories), and the level of competence, on a scale from 1 to 5; the first being fundamental, 2 novice up to 5, the expert. The Institute of Health proficiency scale is applied\textsuperscript{16}. To display their achievement, students may post their badges in portfolios where prospective employers may see them\textsuperscript{15}. Lipscomb University’s CORE program consists of 15 competencies. It is based upon the Polaris Competency Assessment System that is used by companies such as Nike, Disney and others. A popular model was developed by Fortune 500 that is often adapted by organizations. It is possible for organizations to design a competency model to fit their needs that is a readapting of the Fortune model\textsuperscript{15}. What is novel in the Lipscomb University model is that a business competency evaluation model was applied to assessing academic achievement. The program is still new – it was started in 2014 – and assessment of its learning outcome is not possible at this time. It is also still orientated within the traditional academic credit system.

4. Conclusion

The current global focus on competencies reflects that learning outcomes are needed that match “real world” requirements. Technological innovations and globalization have created dynamic and rapidly changing societies that require high levels of learning throughout the human lifecycle. Yet even though the workforce has now become highly peripatetic, there is a great deal of uncertainty about educational standards. Efforts have been made by EQF assessors to bring all EU nations under a signal standard of competency assessment. But currently the EQF is more an ideal than a universal standard. In the United States, Lumina and some Higher Educational institutions in the United States have made efforts to design universally recognizable competency assessment criteria. Some Universities such as Lipscomb have launched a unique effort based on the CORE Fortune 500 model, but it is still too recent to form an opinion about the program’s learning outcomes.

Criticism has been made of direct assessment that it is too business orientated. Its focus is on vocational skills, rather than on higher level cognitive skills that encourage creativity and innovation. While it makes sense to prepare students for the job market and for universities to form collaborative relationships with employers, students require more than just skills, they need to be flexible and creative to manage and stay on top of a dynamically changing society. We cannot foresee future job requirements, but we can help students to deal with change. There needs to be a better balance between theory and practice. While theory is paid lip service, most attention goes to forming practical skills. A more complete theoretical framework needs to be thought through. Lumina has tried to combine intellectual skills with degree level proficiencies in its learning grid. Their model is still in the design process. But clearly defined models for assessing practical and intellectual capacities that serve to actively promote innovation and creativity are critically needed to match twenty-first century requirements.
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