

METHODOLOGY FOR IMPLEMENTING LEARNING OUTCOMES IN A STUDY PROGRAM AS BASIS FOR FUTURE RECOGNITION OF PRIOR LEARNING

Agnese Rusakova, Andrejs Rauhvargers

University of Latvia, Riga, Latvia

E-mail: agnese.rusakova@lu.lv, andrejs.rauhvargers@lu.lv

Abstract

One of the most important problems of the next decades in the context of lifelong learning is the integration non- formal and informal learning achievements of individuals with formal learning so that non- formal and informal learning can be used for their formal promotion –gaining credits and/or whole qualifications.

One of the means for integrating the achievements is through translating knowledge, skills and competencies obtained through alternate forms of learning into learning outcomes (further in text- LO). It is necessary to implement LO approach in the formal system of education to prepare it for recognition of prior learning.

The objective to be reached is understandable and so is the rationale to do so. However unclear is the way how to translate the theory into a working practice. In the following article the authors will address this problem by proposing and examining a methodology for implementing LO in a program, discussing the possibility to improve the quality of program through this action.

The LO approach reflects change from „teacher-centered” to „student-centered” learning. The first results of surveying the lecturers involved in the analyzed program show that the LO are currently implemented rather formally. It is necessary to do more explanatory work in order to benefit from the LO as quality instrument.

Key words: *lifelong learning, learning outcomes, National Qualifications Framework, quality.*

Introduction

Interest in lifelong learning, in its modern sense, revived in the early 1990s, particularly in Europe and the United States. A fresh round of studies and reports popularized the idea of lifelong learning, and it became part of national policy discussion, particularly as global competition and economic restructuring toward knowledge-based industries became more prevalent. The focus on learning shifted from personal growth to human resource development

The aging of the society results in need for lifelong learning to stay competitive and mobile on labor market. It also becomes important to recognize the nonformal and informal learning and integrate it into the formal qualification framework easily, because many laws require the candidate for work placement or employee to be able to prove having specific qualification. Within this respect the society runs the danger of insufficient human resource employment, as the lack of formal documents might automatically defer the suitable candidate from

getting the position. The significance of recognition of prior learning also increases due to the increased geographic mobility of the labor force. Even such reasons as previous involvement of individual in unregistered employment may provide knowledge, skills and competences that are hard if not impossible to prove.

Recognizing what people know or can do – regardless of where they have acquired these knowledge, skills and competences – is indeed likely to be a strong incentive for them to resume learning formally as they will not have to start from scratch. This also cuts the traditional costs (time, tuition fees, transportation costs, etc.) and opportunity costs (forgone earnings, etc.) of formal learning. Cost is often an issue, particularly for the low-skilled who are also generally the lower-paid. One relatively simple and low-cost way of improving the overall skills base of the workforce without having to create new qualifications is create new routes to access existing qualifications.

Problem of Research

Existing national qualifications systems need to be changed with respect to validating learning forms such as non-formal and informal learning to become adapted to a fast-changing knowledge economy. According to “Criteria and procedures for referencing national qualifications levels to the EQF” the LO approach is fundamental to the EQF and the national framework or qualifications system and its qualifications should be demonstrably based on LO. At the same time strong links with the use of LO are a central element for the recognition of prior learning. The thorough implementation of LO is thus to be further advanced. Implementation of LO may serve as quality instrument (Adam, 2006; Jenkins and Unwin, 2001) - providing more transparency, time economy, clearly set responsibility and target orientation.

Research Focus

The objective to be reached is understandable and so is the rationale to do so. However unclear is the way how to translate the theory into a working practice. In the following article the authors will address this problem by proposing and examining a methodology for implementing LO in a Bachelor program.

Methodology of Research

There are two main approaches to conduct the implementation of LO in a program. The top-down approach is useful, when the study program is already functioning, then the course-level LO are adapted to the LO as specified for the major. The bottom-up approach can be applied in cases when the program LO will be inferred from LO of existing courses or modules.

At the point of introducing LO in the bachelor program “International Economics and Commercial Diplomacy” at the Faculty of Economics and Management, University of Latvia, it was already a fully operational and accredited study program. This allowed for choosing the top-down approach which would also enable the study program director to better coordinate the implementation process and address the program in a holistic manner. For formulating the LO the authors decided to apply action verbs as suggested by Bloom’s taxonomy (Bloom, 1975).

To draw conclusions about the current state of implementation of LO in the program the authors created a questionnaire and began to interview the lecturers in June 2010. The convenience sample consisted of six lecturers (18 % of lecturers involved in the program). The use of convenience sampling provides results that are limited in generalization and inference making about the whole population – which in this case would be a team of 33 lecturers. However the six interviewed lecturers form the core team and are profoundly involved in the program by

holding more than one lecture at the above mentioned program. It is planned to question the remaining 27 lecturers as well.

Results of Research

After having taken conceptual decisions the authors proceeded by ensuring that the LO of the program are formulated correctly (see Figure 1). The many of the intended outcomes in accreditation documentation of the program were clearly formulated in a way to reflect the teacher's intentions: "to provide theoretical and practical knowledge in international economics, commercial diplomacy, as well as in fields of political science, culture and legislation". Thus the LO of the program had to be reformulated in a student-centered way. The accreditation documentation of the program was prepared before the National Qualification Framework (NQF) was adopted to the EQF- the outcomes of the entire program had to be adjusted to the respective level descriptors of the NQF of Latvia (see Table 1).

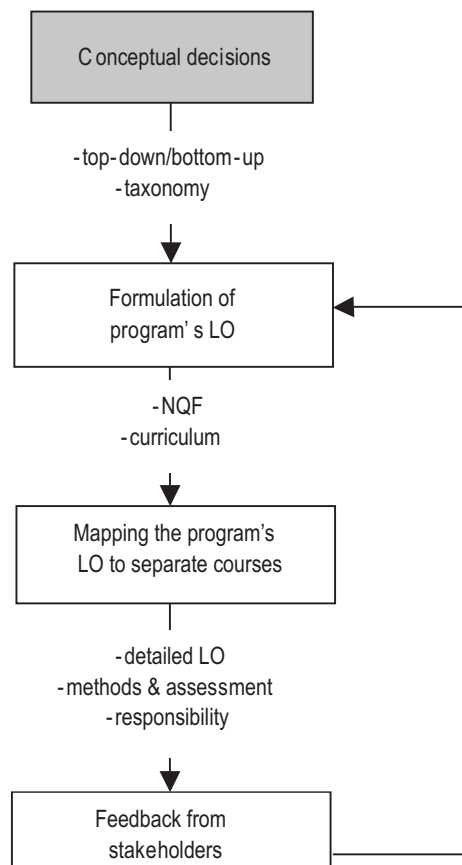


Figure 1: Proposed methodology for implementing LO in the study program (top-down approach).

Table 1. Cycle Descriptors of NQF of Latvia and the LO of the bachelor study program "International Economics and Commercial Diplomacy".

NQF of Latvia descriptors for tertiary education, bachelor cycle (EKI level 6)		LO of the bachelor study program "International Economics and Commercial Diplomacy" at the Faculty of Economics and Management, University of Latvia
Knowledge and Comprehension	demonstrate general and specialized knowledge and understanding of the corresponding to the field of profession facts, theories, causal relationships and technologies	1. Demonstrate theoretical and practical knowledge in international economics, commercial diplomacy, as well as in fields of political science, culture and legislation
Application of Knowledge	<ul style="list-style-type: none"> · based on analytical approach, conduct practical tasks in the corresponding profession · demonstrate skills, that allow to find creative solutions to professional problems 	
Analysis, Synthesis, Assessment	<ul style="list-style-type: none"> · independently acquire, select and analyze information, know how to apply it · take decisions and solve problems in the corresponding academic discipline or profession · comprehends professional ethics · assesses the impact of own professional activities upon environment and society 	2. Analyze and assess these processes, by applying statistical, econometrical, as well as qualitative and quantitative methods of analysis and apply the acquired results of analysis for improving the performance of company or institution, comprehending the professional ethics in international business environment;
Communication	<ul style="list-style-type: none"> · formulate and analytically describe the information, problems and solutions in own academic discipline or profession, explain them and discuss them by being able to justify own viewpoint both to specialists and non-specialists 	3. Defend the national or corporative interests in international trade, finance or other economical activities, by being part of different national or international institutions, as well as local, private, national and multinational companies and corporations, and do so by applying knowledge of several languages;
Continuing Education	<ul style="list-style-type: none"> · independently structure own studies, direct the own continuing education and the continuing education of subordinates, as well as the professional perfection 	4. Demonstrate competency in knowledge acquisition sources (related to the comprehension of processes of international economics and commercial diplomacy), paying attention to the development tendencies of leading national economies, foreign investment attraction and promotion of export growth;
Other Generic Skills	<ul style="list-style-type: none"> · demonstrate scientific approach in solving the problems · undertake responsibility and initiative, by conducting the work individually, in teams or by leading the work of others · take decisions and find solutions in changing or unclear conditions 	5. Apply competency of presentation and scientific polemics, communication skills, team work abilities with the aim to analyze the application of theory in hypothetical and real situations.

The next step is to continue the top-down approach and link the program's LO to the individual courses of the curriculum. By taking a closer look at the formulated LO, it becomes clear that the LO can be further divided into several sub-LO. Thus the LO No.2 can be divided

further into three distinctive parts and those can be linked by logic to several courses of the curriculum. Apparently the part “*Analyze and assess these processes, by applying statistical, econometrical, as well as qualitative and quantitative methods of analysis...*” corresponds to the following courses - Economic Informatics I, Statistics of Economics and Business, Econometrics. The part “*...and apply the acquired results of analysis for improving the performance of company or institution...*” correlates to the LO of the Management Theory, International Economics, Research Workshop. And, finally, the part “*... comprehending the professional ethics in international business environment*” conforms to the intended LO of the courses - Economics and World Security, Comparative Analysis of World’s Regions etc.

If one assumes that these are the courses that will indeed address the specific program’s LO, it will mean an unavoidable jeopardy of running into quality problems – the overlapping and redundancy of course content. This requires more discussion among the teaching staff in order to eliminate the possible repetition of the study material.

Also the part of the LO No.3 “*... and do so by applying knowledge of several languages*” seems to be best allocated to the courses - Business English, English for Business and Law, Business Correspondence in English, French. However, this would be a too simplified and confined approach. Excluding other lecturers from addressing this LO, the overall quality of the program may suffer or at least may reach unsatisfactory results.

Such curriculum constituents as defense of Bachelor thesis, defense of internship are presumed to take care of the more generic LO No. 5 Nevertheless improvement of generic skills can become and often is part of all courses. The generic nature of this LO may lead to a too scattered perception of own responsibility in leading students to the achievement of this LO, as the lecturer of the individual, specialized course (such as f.ex. World’s Religions) most probably does not feel obliged to make sure that the students advance in achieving this LO. In most severe case this LO is not reached at all by the graduates of the program as all lecturers expect other lecturers to take care of it. To avoid such unwishful consequences it is necessary to further interpret and define the responsibility of individual course lecturers in achieving this LO.

As a matter of fact the generic skills can also be further divided –f.ex. team work abilities (take on initiative, work with people from different backgrounds etc.). Even in the case when the lecturers state that they take care of the generic skill “*team work abilities*”, by regularly assigning the students with team projects, it is necessary to check the extent and emphasis of lecturers’ approaches within this respect. Thus it may happen, that all lecturers allow the students to form teams according to own preferences. In such a way the development of sub-skill „*work with people from different backgrounds*” is impeded. Per contra, if the group of lecturers, that assign team projects during their lectures agree in advance, that one of them will always group the teams in a random way, the other will group the team by students sitting next to each other etc, the achievement of the sub-skill and correspondingly the umbrella-skill „*team work abilities*” will be achieved in a more qualitative way.

Therefore to support the further implementation of LO it is necessary to develop a map (see Table 2) of detailed LO (aim) -> teaching methods (how to reach it?) -> assessment tools (is it reachable?) -> courses (responsible lecturer), which can serve as basis for discussing the responsibilities of individual lecturers.

Table 2. Mapping detailed LO to the individual courses.

LO: the graduate is able.	How to reach this LO, how to assess it?	Who will be responsible?
.. find solution to the problem by providing a list of possible actions	case studies	Commercial Diplomacy
..select and concentrate the most important information	create a title and annotation to an article	?
..explain and justify own viewpoint in a written form	report, A4 dispatch, write critical review	Economics and World's Security

On the basis of such a map (developed in close collaboration with the director of the study program) the authors created the questionnaire.

The first results of interviewing the lecturers involved in the analyzed program show that the LO are currently implemented rather formally. Insufficient understanding of the term LO and student centered learning has been detected. Thus the annotations of individual courses of two lecturers were not formulated according to the main principles of LO – they contained formulations that were teacher centered. One lecturer stated that she is covering all LO's of the program within her course, which is also a sign that the approach is rather superficial – as it can not be ensured that all aspects of the program are covered by one lecturer only. Apart from discrepancy with the student centered learning philosophy, the lack of understanding creates a resistance to change among the teaching staff.

The survey showed that the majority of the questioned lecturers do not consider the teaching of generic skills as their full responsibility; this is especially observable with relation to presentation skills of the students.

Discussion

The chosen top-down approach was useful, since the study program was fully operational and accredited. Also the fact that many of the LO's of the individual courses still have to be adjusted to student centered approach speaks in favor of the top-down approach as it is easier to change the learning outcomes of individual courses than the learning outcomes of the whole program as stated in the accreditation documentation.

While formulating the LO the authors followed the guidelines (Kennedy, 2007) outlined by Dr. Declan Kennedy, making sure that the LO are: Observable; Measurable; Student-centered; 5-8 in total and that LO “are written at minimum acceptable or threshold (pass / fail) standard” (Moon, 2005); and that they should serve as tool of transparency for the stakeholders – “for those who pay the bills—taxpayers, parents, and students—to evaluate critically what they get for their money from public education” (Frye, 1999). The LO have to relate to external reference points (qualifications descriptors, levels, level descriptors) (Adam, 2004)

It was noticeable that the interviewed lecturers improved their attitude towards the concept, once it was explained that “learning outcomes” is not just another bureaucratic reformulation of existing term “study aims” but involves a new learning paradigm that can serve as quality instrument. As result of the improved attitude the lecturers became more cooperative.

In order to fully benefit from learning outcomes as quality instrument it is necessary to check not only the formal implementation, but also the quality dimension thereof. Even though five of the interviewed lecturers require the students to prepare a presentation in at least one of their lectures, however they do not pay attention to such details as – whether each of the students has the chance to present at least once (especially in the case of group presentations), or whether the students receive a constructive feedback that could help to improve the respective

generic skills.

The map of detailed LO to the individual courses can help to: identify the attained cluster of knowledge, skills and competences of the average graduate of the program based on the activities undertaken in sum by the team of lecturers; identify the cluster that currently is being attained at an unsatisfactory level; provoke discussion on the conformity of the LO of the program to the content provided.

To gain more complete picture of the current state of implementation of LO in the program it is necessary to interview the remaining 27 lecturers as well.

The further research would require checking the opinion of the stakeholders (such as graduates and employers) on the implementation of LO in the program. According to the results it will be most necessarily to adjust the program's LO and restart the cycle, entering the process of an ongoing aspiration for quality. Once formulated the LO can serve as basis for recognition of prior learning.

Conclusions

- Currently the learning outcomes in the analyzed program are implemented rather formally;
- Due to still insufficient understanding of the concept „learning outcomes” among the teaching staff it is necessary to do more explanatory work;
- Formulation of learning outcomes does not only include choosing the taxonomy, but also making sure that other aspects are complied with – such as reasonable number of learning outcomes etc.
- The generic skills are often considered of second importance and are left out of the field of responsibility of the lecturers' team, as they strive to make sure that the students know mainly the specific content of their courses;
- Correctly implemented learning outcomes may serve as quality instrument;
- The map of detailed LO to the individual courses can serve as basis of discussion for implementing learning outcomes in a program.

References

- Adam S., (2004). *A consideration of the nature, role, application and implications for European education of employing learning outcomes at the local, national and international levels*. Report to the UK Bologna Seminar, Heriot-Watt University, Edinburgh, Scotland. Retrieved October 9, 2010, from pedagogy.ir: learning environment, performance & lifelong learning Web site: <http://www.pedagogy.ir/images/pdf/using-learning-outcomes-eu.pdf>
- Adam, S., (2006). An introduction to learning outcomes , A consideration of the nature, function and position of learning outcomes in the creation of the European Higher Education Area. *Bologna Handbook, BH 1 00 06 07 I, B 2.3-1*, 1–24. Retrieved October 9, 2010, from Bologna Process, Ministry of Education, Youth and Sports, Czech Republic Web site: http://www.bologna.msmt.cz/files/Adam_IH_LP.pdf
- Bloom, B.S. (1975). *Taxonomy of educational objectives, handbook 1: cognitive domain*. New York, USA: Longman.
- European Commission. (2009). *Criteria and procedures for referencing national qualifications levels to the EQF* (EQF Advisory Group, Ares (2009)89092), Retrieved October 9, 2010, from European Commission Web site: http://ec.europa.eu/education/lifelong-learning-policy/doc/eqf/criteria_en.pdf
- Frye, R., (1999). Assessment, accountability, and student learning outcomes. *Dialogue, Issue No. 2*, 1-12. Retrieved October 9, 2010, from University of Kentucky Web site: <https://www.uky.edu/IRPE/assessment/references/dialogue.pdf>

Jenkins, A. & Unwin, D. (2001). *How to write learning outcomes*. Retrieved October 9, 2010, from National Center for Geographic Information and Analysis Web site: <http://www.ncgia.ucsb.edu/education/curricula/giscc/units/format/outcomes.html>

Kennedy, D. (2007). *Writing and using learning outcomes: a practical guide*. University College Cork, Cork, Ireland: Watermans Printing.

Moon, J. (2005). *The module and programme development handbook: a practical guide to linking levels, outcomes and assessment criteria*. London, UK: Routledge.

Advised by Andris Kangro, University of Latvia, Latvia

Agnese Rusakova	M.sc., Doctoral Student, Faculty of Education Psychology and Art, University of Latvia, Raina Blvd. 19, Riga, LV-1586, Latvia. E-mail: agnese.rusakova@lu.lv Website: http://www.lu.lv
------------------------	--

Andrejs Rauhvargers	Dr.chem, Professor, Faculty of Education Psychology and Art, University of Latvia, Raina Blvd. 19, Riga, LV-1586, Latvia. E-mail: andrejs.rauhvargers@lu.lv Website: http://www.lu.lv
----------------------------	---