Methodology for reviewing and revising study programmes in line with the labour market demands

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the Process,
the Actors,
the Instruments,
the Outcomes

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Labour Market Needs

DOCUMENT 1

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METHODOLOGY
FOR REVIEWING AND REVISING STUDY PROGRAMMES
IN LINE WITH THE LABOUR MARKET DEMANDS

LIST OF ABBREVIATIONS

EHEA	EUROPEAN HIGHER EDUCATION AREA
HEIS	HIGHER EDUCATION INSTITUTIONS
KAA	KOSOVO ACCREDITATION AGENCY
LM	LABOUR MARKET
LO	LEARNING OUTCOMES
MEST	MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
MLSW	MINISTRY OF LABOUR AND SOCIAL AFFAIRS
OS	OCCUPATIONAL STANDARDS

INTRODUCTION

Kosovan public universities follow internal institutional procedures for curriculum development with the final aim of accreditation by the Kosovan Accreditation Agency (KAA). The KAA was established by the Ministry of Education, Science and Technology (MEST) in accordance with the Law on Higher Education - LHE (2003/04) in Kosovo with the aim to ensure quality of educational and scientific research work at higher education institutions (HEIs) in Kosovo. The Agency sets quality standards for and executes the (re-) accreditation of institutions and their study programmes/ curricula. To this end it provides templates, guidelines and procedures for accreditation and publishes evaluation reports and decisions.The project ALLED - Aligning Education with Labour Market Needs aims to re-enforce the labour market relevance of study programmes. On the one hand, the project provides an evidence base with results from an employers survey amongst firms in Kosovo (October – December 2016) in selected sectoral fields: Agriculture, Food Processing, Mechanical Engineering. On the other hand, the project provides guidelines on how to review curricula for labour market relevance and use evidence to revise the curricula and the syllabi of its courses.

Labour market relevance has been considered at Kosovan HEIs for already some time: curricula are formally based on Learning Outcomes/Competences and the standards set by the KAA include a section on labour market relevance: section 3.2.2. of the Guidelines on drafting the Self Evaluation Report (SER) for programme evaluation (G2) asks for a rationale of the programme for the labour market. However, so far there has been no systematic data collection or basis for such data collection (procedures and resources) to institutional labour market research for development of study programmes; additionally there is no common understanding as to the objectives and objects of labour market relevance and no guidelines for the elaboration of labour market relevant study programmes. The guidelines at hand aim to provide the latter, with the specific objective of not only providing procedures but also creating awareness and common understanding on the topic of labour market relevant curricula in Kosovo through discussion and workshops accompanying the development of the guidelines.

The guidelines target management and staff of HEIs involved in the development of curricula and related syllabi, with the objective to provide background information, guiding questions and steps to review (discuss) and revise (adapt) existing curricula with focus on labour market relevance. The guidelines aim to provide solutions for the short- and mid-term and advanced options for the long-term based on the understanding that ensuring labour market relevance of curricula is a process rather than an exercise implemented once and forever.

In general, a number of aspects and procedures are considered when tailoring curricula to the labour market, such as acceptance analysis (geographical region, quantitative details of the potential target groups, related educational opportunities etc.) or demand analysis (macroeconomic figures, qualitative assessment, evaluation of employment opportunities etc.). The guidelines at hand depict methods that are applicable and tailor made for the is-situation in Kosovo, considering local administrative procedures, timeframes, available data and available human resources.

CHAPTER 1. REVIEWING

DO WE KNOW THAT THE STUDY PROGRAMMES PRODUCE GRADUATES WHO HAVE THE COMPETENCES IT TAKES TO FIND EMPLOYMENT IN KOSOVO?

WHAT IS ALREADY DONE

Labour market relevance of study programmes is one of the principal aims of the Bologna process[1] and has been considered in the developing and revision of curricula in Kosovo under supervision of the KAA since its establishing. Curricula and syllabi for study programmes and individual courses in Kosovo contain information on Learning Outcomes (LO) which may relate to Competencies needed at the labour market. Also, the self-evaluation report for (re-)accreditation of study programmes by the KAA asks for a Rationale on the labour market relevance of the programme submitted.

The new legal framework in Kosovo (2016/2017)
Administrative Instructions 20/2016 for accreditation of higher education institutions in the Republic of Kosova (https://masht.rks-gov.net/uploads/2016/09/ua-nr-20.pdf) in its newest version include a reference to the labour market relevance of curricula – see article 11/quality standards for study programmes; 2.3. ˝study programmes should be labour market relevant.

Furthermore, the question on the labour market relevance for (re-)accreditation of study programmes in the Self-Evaluation Guidelines will be adapted to highlight the importance of factual evidence (statistics, figures, survey results).

Subsequently, external evaluators will put more emphasis on the labour market relevance and its factual evidence in the future when assessing the (re-)accreditation of study programmes. The Guideline for the Self-Evaluation Report and the Guidelines for External Experts are available on the website of the Kosovo Accreditation Agency: http://www.akreditimi-ks.org/.

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[1] As the main objective of the Bologna Process since its inception in 1999, the EHEA was meant to ensure more comparable, compatible and coherent systems of higher education in Europe. Between 1999 - 2010, all the efforts of the Bologna Process members were targeted to creating the European Higher Education Area, that became reality with the Budapest-Vienna Declaration of March, 2010. http://www.ehea.info/.

THE CHALLENGE

Writing the Rationale for labour market relevance of a study programme can be a challenge. Although in Kosovo there is already data being collected (such as data on employment and unemployment, and data on enrolment in HEIs), and even though new systems are going to be introduced at the Ministry of Labour and Social Affairs (MLSW) and the Ministry of Education, Science and Technology (MEST), this data needs to be aggregated for creating an evidence base for linking (higher) education to labour market needs, which eventually should also serve as evidence base for the study programmes.

In a pilot exercise the ALLED project uses the Labour Force Survey for analyzing demand and supply for the development of sector profiles (the macro-aspects of labour demand and supply) and an employer´s survey for assessing skill needs at the micro-level. The results are fed into Occupational Standards (reflecting competences needed for a particular profession) which can be used to develop Learning Outcomes for study programmes: the Occupational Standards for these professions are translated into Learning Outcomes.

Also, despite all efforts invested so far by policy makers of the Bologna process, in practice in Higher Education Institutions (HEIs) throughout the European Higher Education Area (EHEA) there is weak understanding of staff involved in curricula development as to the correct writing of Learning Outcomes and of as to what the use of Learning Outcomes entails with regards to teaching and learning (teaching/learning methodologies and related material) and student assessment. This means that although many curricula include Learning Outcomes, these are not written based on standard criteria defined by leading experts in the field (see for example: Writing and Using Learning Outcomes: a Practical Guide (Kennedy, et al., 2006, see also chapter on Learning Outcomes in the Guidelines at hand). Furthermore, in teaching and learning practice LO are very rarely of relevance, so teaching/learning methodologies and material remain the same and teaching continues as before. This is problematic because LO imply a change in paradigm with a shift towards a more student-centred approach in teaching, towards enabling learners/students to be more in charge of their own learning process and its results. In order to implement this shift, teaching/learning methodologies, related material and assessment methods need to be revised in order to achieve the Learning Outcomes of the study programme and individual units of the programme. Although this means some adjustment upon starting to use LOs it means that students will be more apt for the labour market in the long-term.

These two items – Rationale for LM-relevance and Learning Outcomes - are an important starting point for ensuring labour market relevance of educational programmes and consequently the employment of graduates. A further object of relevance are Occupational Standards, where efforts are currently being made for their introduction. For updates on verified Occupational Standards please visit the website of the National Qualification Authority of Kosovo: http://akk-ks.net/

SHORT TERM AND LONG-TERM NEEDS OF THE LABOUR MARKET

It is important to consider that the labour market of a country has short-term and long-term needs. Short-term needs are more evident and easier to track down as they are reflected in current data (e.g. on unemployment, enrolment etc. as described above). Long-term needs however unfold only through prediction and analysis of developments in different fields in the future and are therefore more complex to assess and to consider. Thus, for example it is possible that a change in legal regulations for import/export of goods at national level will influence developments in a particular sector and consequently the needs for a particular kind of labour. How relevant this is for the development of educational programmes will however also depend on a lot of other factors, e.g. whether competent labour force for this new demand can be drawn from other sectors, or whether it can be drawn from currently unemployed forces, e.g. though short skills updates, or whether a new generation of labourers will have to be educated.

In this regard, sector profiles aim to draw a picture of a particular sector in the short term and should aim to also portrait (potential) future needs, in order to ensure that students of a particular programme find work after graduation in 3-6 years but find their skills useful also in the longer-term. Within the frame of ALLED sector profiles have been established for the sectors "Food Processing", "Agriculture", and Mechanical Engineering".

For the consideration of long-term educational needs the National Qualifications Framework provides a reference to knowledge, skills and competences for a particular qualification level that are not short-term and not sector specific but may be applicable in the longer term, thus as for example "communication skills", "analytical skills" etc.. Against this background, the Self-Evaluation Report for the (re-)accreditation of study programmes also asks for the reference of the programme to the respective qualification level (see 3.2.1. of the "Guidelines on drafting the Self-Evaluation Report for programme evaluation") The National Qualifications Framework of Kosovo can be found at the website of the National Qualification Authority of Kosovo: http://akk-ks.net/.

REVIEWING CURRICULA FOR LABOUR MARKET RELEVANCE IN SMALL STEPS

STEP 1. REFINING THE RATIONALE FOR LABOUR MARKET RELEVANCE OF STUDY PROGRAMMES (SECTION 3.2.2. OF THE GUIDELINES ON DRAFTING THE SELF EVALUATION REPORT FOR PROGRAMME EVALUATION, BY KAA)

The Rationale should include information on the needs of the labour market related to the study field including the source of evidence for verification (source of data used) and an explanation of how the curriculum will meet these needs.

WHERE TO FIND THE RELEVANT DATA AS BASIS FOR THE RATIONALE?

The ALLED project aims to establish procedures for a more institutionalised data collection. This includes a methodology on how to use the Labour Force Survey for analyzing demand and supply on the macro level (sector profiles), a methodology for employers surveys (micro-level) incl. questionnaires and survey instruments, and capacity building at the relevant stakeholders for the use of these methodologies. Alternatively, and until institutionalised procedures are in place for comprehensive and regular data collection, it is recommended to consider the following general sources for Kosovo:

- Data on unemployment by the MLSW
- Data on enrolment by the MEST
- Labour Force Survey data by the Kosovo Agency for Statistics

Additional sources may be available for particular fields of work – check with your colleagues and relevant employers of your graduates.

A focus group with relevant employers and graduates can be helpful to identify and discuss competences, which employers expect from the graduates of a particular study programme. If there are no relevant/not sufficient data available for Kosovo in a particular field of study, sources for labour market relevance may be additionally sought in countries with similar structure/economy. Also, in this case, discussion with a focus group can help to verify the comparability of this data with the Kosovan context.

ADVANCED OPTIONS

In countries throughout the EHEA institutions aim to provide qualitative and relevant study programmes for better employability of their students. To this end, many HEIs (need to) commission external providers to elaborate a study to assess the labour market relevance of the study programme that is to be developed. This study serves as a starting point for curriculum development and helps to promote the programme to the target group.

IMPORTANT

What makes a realistic study programme (feasible to be implemented in a particular context, e.g. institution, region, country) based on competences required for a particular field of employment, is the result of balancing several parameters: international (EHEA) requirements and national legislation, labour market needs and needs of the student (e.g. international mobility) as well as university prerequisites (resources in staff, equipment etc.).
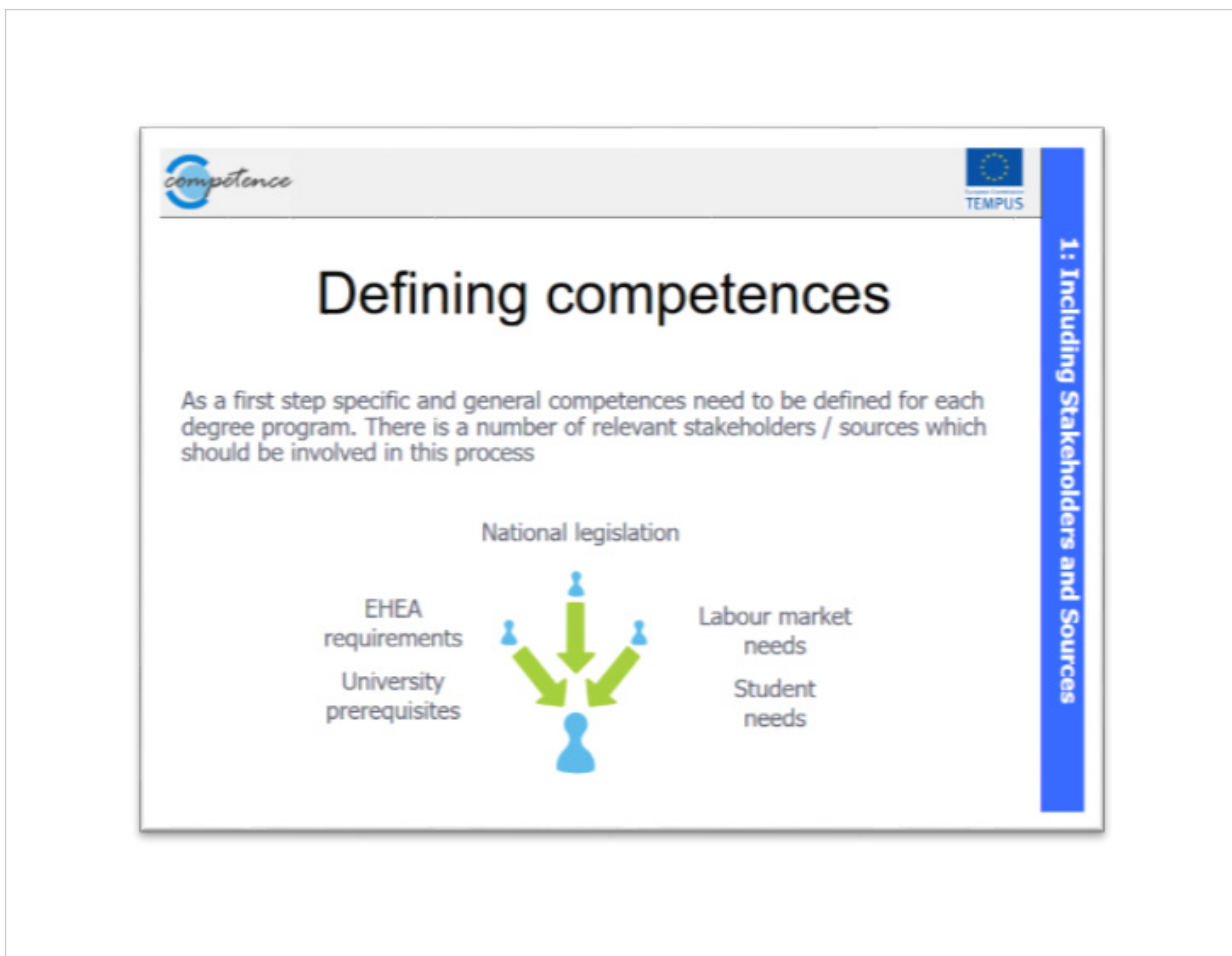
Source: EU/Tempus funded project: Competence - Matching competences in higher education and economy: From competence catalogue to strategy and curriculum development

STEP 2. CHECKING THE FRAMEWORK – REVIEW OF THE EXISTING STUDY PROGRAMME

Curriculum revision is a joint exercise by groups of teaching and management staff in order to ensure that the implementation of the curricula is feasible and that the teaching staff has "ownership" of the Learning Outcomes of the study programme and his/her course syllabus. If the teaching staff of the programme does not understand the meaning of the Learning Outcomes as basis of the programme the successful implementation of the curriculum (leading to the employability of the graduates) is unlikely.

This contradicts current practices of developing curricula in a small group of only 2-3 selected staff. It is recommended to review the curriculum in several rounds of discussion, based on guiding questions and a leading moderator who takes notes of results of discussion and leads the group towards concrete recommendation for changes in the curriculum.

DISCUSSION ROUND 1 – QUESTIONS ON THE LEVEL OF INDIVIDUAL COURSES (SYLLABI):

✔ Are the aims/objectives/learning outcomes/competences of the syllabus adequate, precise and understandable?

✔ What does the learner need to know/do/produce? Is the format of the course suitable for this? Will the student be able to put it into practice at his/her future workplace?

✔ Are the teaching methods apt to reach the LOs of the course?

✔ Are the assessment methods used in the course suitable to test the student's performance with regards to the LOs of the course? How to assess the outputs of more complex teaching methods (such as group work)?

✔ How do we know if the students have reached the LOs of the whole module/ the programme?

The discussion/s are held per module with a smaller number of teaching staff, representing all courses under one module (half-day workshops).

DISCUSSION ROUND 2 – QUESTIONS ON THE LEVEL OF STUDY PROGRAMME (CURRICULUM):

✔   What is the background of the study programme (history, development, status and quality)?

✔   Is the existing qualification profile/linked to the labour market understandable and relevant, e.g. does it reflect the aims with regards to future employment of the graduate?

✔   Does the study programme correspond to the respective level in the Kosovan NQF and its descriptors (along the three dimensions: knowledge, skills and personal responsibility/responsibility for others)?

✔   Do the learning outcomes of modules and courses cover the learning outcomes of the whole study programme?

✔   Are the different formats of courses suitable for the programme (e.g. well balanced? state-of-the-art? etc) ?

✔   Are the teaching tools and examination modalities apt for the programme and apt to prepare the students for their potential work place? (e.g. relevance of teaching for practical application? infrastructure on site? Etc.)

✔   Does the curriculum allow for the inclusion of students' perspectives?

✔   What is the value of the programme for the target community/region, what is missing?

The discussion can be held with a larger number of teaching staff including the coordinator of the study programme and management staff at department/faculty level (half-day workshop).

DISCUSSION ROUND 3 – PROVIDING RECOMMENDATIONS FOR CHANGES IN THE CURRICULUM/SYLLABI:

✔   Summing up the results from previous discussions:
   • Do learning outcomes from all units taken together reflect the desired profile of the graduate (as presented in the curriculum)?
   • Does the desired profile of the graduate (as presented in the curriculum) correspond to the needs of the labour market? To what extend does it (not) correspond to it?
   • Do you expect graduates of this study programme to find employment easily and why?

✔   What changes need to be introduced in the short-term and in the long-term?

✔   Which parts need to be adapted/submitted approved by whom and until when?

The discussion can be held with a small number of teaching staff including the coordinator of the study programme and management staff at department/faculty level (half-day workshop). As a result of the workshops and discussions there is a clear list of recommend adaptations and a schedule and division of tasks regarding the next step – the revision of the curriculum.

CHAPTER 2. REVISING

HOW CAN WE ENSURE THE LABOUR MARKET RELEVANCE OF CURRICULA?

The bigger picture - the ALLED approach to reviewing and revising curricula
After elaboration of sector profiles and the development of Occupational Standards, Learning Outcomes can be developed for study programmes based on the OS for the relevant profession.

Sector profiles/employers survey ▶ Occupational Standards ▶ Qualification Standards ▶ Curricula review/revision

(see also: A Concept for Aligning Education with Labour Market Needs: The Objectives, the Process, the Actors, the Instruments, the Outcomes).

Currently, sector profiles are available for the sectors "Food Processing", "Agriculture", and Mechanical Engineering". When no sector profile is available, proceed with STEP 4 – Writing and Using Learning Outcomes (page 13).

STEP 3. TRANSLATING OCCUPATIONAL STANDARDS INTO LEARNING STANDARDS

The method used in ALLED for curriculum development based on OS is based on the Guideline on Using Occupational Standards in Development of Learning Modules (NQA, 2011). To this end, Occupational Standards contain functions, key activities, performance criteria, range statements and assessment criteria which translate into the curriculum as follows:

OCCUPATIONAL STANDARD		CURRICULUM
FUNCTION	→	Module or programme title
KEY ACTIVITIES	→	Learning Outcomes
PERFORMANCE CRITERIA	→	Performance (Assessment) criteria
RANGE STATEMENT	→	Conditions or performance and assessment
ASSESSMENT CRITERIA	→	Evidence requirements

Source: Guideline on Using Occupational Standards in Development of Learning Modules (NQA, 2011)

It is important to note that these relationships may not necessarily fit every model and developers need to use their own judgement based on the specific needs of their particular environment. Standards are not a prescriptive method but rather a resource for training and learning.

Some examples of functions translated into modules:

FUNCTION	LEARNING MODULE
Work safely, minimise riskss and comply with emergency procedures	Occupational health and safety

FUNCTIONS 1 AND 2	LEARNING MODULE
F1: Install pipes for water and sewerage	Occupational health and safety
F2: Install sanitary objects in bathrooms and kitchens	

Source: Guideline on Using Occupational Standards in Development of Learning Modules (NQA, 2011

As depicted above one or more functions can translate into one learning module. At a lower level, key activities described in the Occupational Standard become Learning Outcomes. For both levels it is essential that the teaching staff developing/revising the curricula discusses the translation from Occupational Standard to Curriculum (Module and course level) as there may be necessity/options to merge/split functions and key activities into one or several modules/Learning Outcomes.

KEY ACTIVITY	LEARNING MODULE
USE IT TO EXCHANGE INFORMATION	Operate an email address by sending, receiving, downloading and saving attachments
	Find and retrieve information from internet and intranet using different web browsers
	Explain the technical potential threats when navigating the internet and/ or registering on commercial sites (accuracy of info, conflicting messages)
	Explain the legal aspects regarding the exchange of private information on internet and intranet. (privacy, copyright, etc.)
	Other?

Source: Guideline on Using Occupational Standards in Development of Learning Modules (NQA, 2011)

STEP 4. WRITING AND USING LEARNING OUTCOMES

Learning Outcomes have been used by teachers and educationists since the 1950ies and their use is also been promoted by policy makers in the implementation of the Bologna process. As pointed out in previous chapters the writing and the use of Learning Outcomes remains a challenges for HEIs throughout Europe. Plenty of material can be found on the internet on how to write and use LOs, this list includes some of the most popular ones:

✔ Declan Kennedy, Áine Hyland, Norma Ryan: "Writing and using learning outcomes: a practical guide", article C 3.4-1 in Eric Froment, Jürgen Kohler, Lewis Purser and Lesley Wilson (eds.): EUA Bologna Handbook – Making
✔ Bologna Work (Berlin 2006: Raabe Verlag); e.g. http://www.tcd.ie/vpcao/academicdevelopment/assets/pdf/ Kennedy_Writing_and_Using_Learning_Outcomes.pdf

✔ Jenny Moon, Exeter University: Linking Levels, Learning Outcomes and Assessment Criteria. http://www.aic.lv/bolona/Bologna/Bol_semin/Edinburgh/J_Moon_backgrP.pdf

✔ John Biggs: 'Aligning teaching and assessing to course objectives'. Teaching and Learning in Higher Education: New Trends and Innovations. University of Aveiro, 2003

✔ Bloom's Taxonomy: e.g. http://www.kstate.edu/assessment/slo/blooms.htm; Original work: Taxonomy of educational objectives: the classification of educational goals; Handbook I: Cognitive Domain . New York, Longmans, Green, 1956.

DEFINITION OF LEARNING OUTCOMES

Learning Outcomes are a statement of what a learner is expected to know, understand, and be able to do at the end of a learning process. Thus, the princial question asked to graduates will no longer be „what did you do to obtain the degree?" but „what can you do now that you have obtained your degree?" (Purser, Council of Europe, 2003). This represents a shift in paradigm from input-oriented (teaching) towards output-oriented (learning):

Learning Outcomes reflect the position of the learning (output) in addition to those of the teaching (input): what has been taught is not necessarily what the student has learned. From the definition of LOs we see an emphasis on the learner and an emphasis on the learner's ability to do something:

FOCUS ON TEACHING:	FOCUS ON LEARNING:
aims and objectives and use of terms like know, understand, be familiar with.	what we want the student to be able to do - use of terms like define, list, name, recall, analyse, calculate, design, etc.

Learning Outcomes can be found in different contexts, not only in curricula. Where Learning Outcomes can also be found:
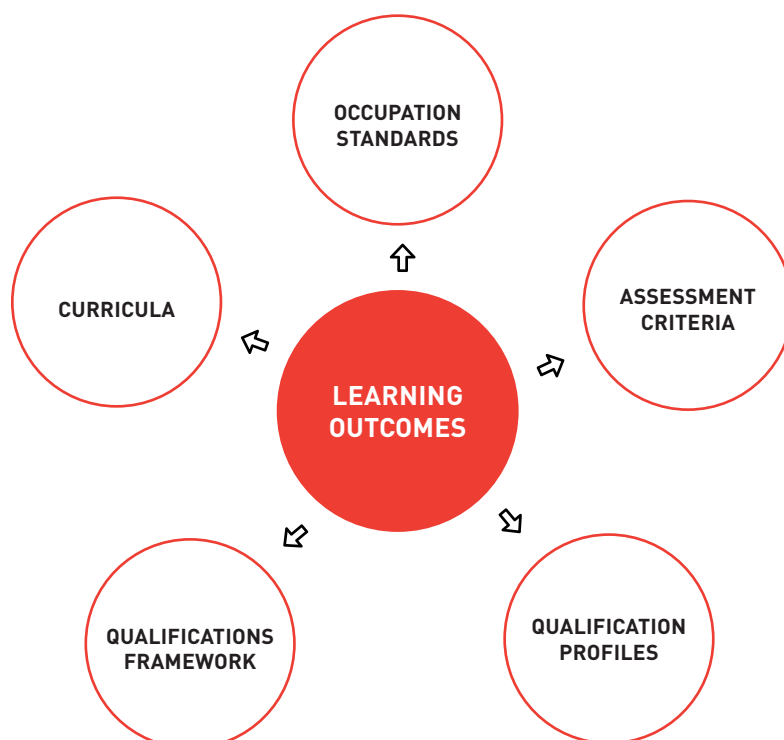
Bloom (1956) proposed that knowing is composed of six successive levels arranged in a hierarchy.
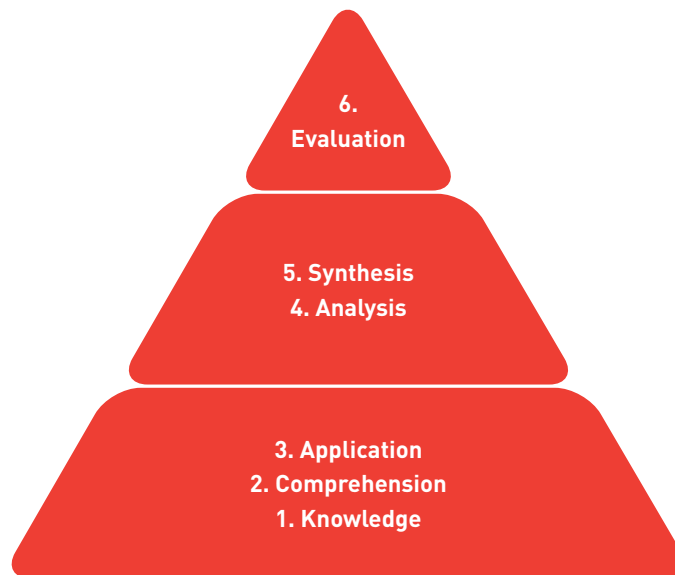
Bloom also provided a list of verbs for each of the six levels which is being used by educationist all around the world for the development of Learning Outcomes (see Annexes). Bloom's taxonomy and list of verbs have been revised several times (e.g. hierarchy levels changed, verbs added to the list, see e.g. the works of Anderson/Krathwohl et al.) since their first publication, and other theories have been developed which challenges Bloom's taxonomy.

Examples of what Learning Outcomes may look like: At the end of the course students will be able to

- Identify and consider ethical implications of scientific investigations.
- Differentiate between civil and criminal law
- Select and employ techniques for analysing the efficiencies of energy usage in complex industrial processes.
- Compare and contrast the different electronic business models
- Propose solutions to complex energy management problems both verbally and in writing
- Predict the effect of change of temperature on the position of equilibrium.

Steps involved in linking Learning Outcomes, Teaching and Learning Activities and Assessment:

✔   Clearly define the learning outcomes

✔   Select teaching and learning methods that are likely to ensure that the learning outcomes are achieved (e.g. when Learning Outcomes reflect oral skills students need to practice these skills during class, e.g. in role plays, debates etc.)

✔   Choose a technique or techniques to assess the achievement of the learning outcomes (e.g. if the LO reflect oral competences such as skills for moderating a discussion the student assessment should not be in writing)

✔   Assess the learning outcomes and check to see how well they match with what was intended

Writing and using Learning Outcomes is a process not an event – once an institution starts to use Learning Outcomes teaching staff needs to check regularly (recommended before re-accreditation) whether the Learning Outcomes defined in the curricula are still apt and valid.

Underrepresented/vulnerable student groups

Together with the factual labour market relevance, study programmes should also attract the potential of groups that are so far underrepresented such as (for some subjects) female/male students and representatives from minority groups. To consider gender aspects in the development of curricula the following link provides access to an info brochure and a checklist in English and in Albanian:

-    Guidelines on Gender Fair Curriculum Development, 2010 in English: http://www.wus-austria.org/files/docs/ Publications/guidelines_gender_fair_curriculum_development.pdf

-    Guidelines on Gender Fair Curriculum Development, 2010 in Albanian: http://www.wus-austria.org/files/ docs/B%20guidelines_gender_fair_curriculum_development%20Alb%2020.10.pdf

The Guidelines for Gender Fair Curriculum Development can be applied to a certain extent also for taking into account the perspective of vulnerable groups.

SOURCES AND LINKS

A concept for Aligning Education with Labour Market Needs; report 2015: Pristina, ALLED

Administrative Instructions 20/2016 for accreditation of higher education institutions in the Republic of Kosova (https://masht.rks-gov.net/uploads/2016/09/ua-nr-20.pdf)

Biggs, John: 'Aligning teaching and assessing to course objectives'. Teaching and Learning in Higher Education: New Trends and Innovations. University of Aveiro, 2003

Bloom's Taxonomy: e.g. http://www.kstate.edu/assessment/slo/blooms.htm; Original work: Taxonomy of educational objectives: the classification of educational goals; Handbook I: Cognitive Domain . New York, Longmans, Green, 1956.

Competence - Matching competences in higher education and economy: From competence catalogue to strategy and curriculum development (EU/Tempus funded project; http://www.wus-austria.org/project/0/36.html)

Guidelines on Gender Fair Curriculum Development, 2010 in English: http://www.wus-austria.org/files/docs/Publications/guidelines_gender_fair_curriculum_development.pdf

Guidelines on Gender Fair Curriculum Development, 2010 in Albanian: http://www.wus-austria.org/files/docs/B%20guidelines_gender_fair_curriculum_development%20Alb%2020.10.pdf

Guidelines on Using Occupational Standards in Development of Learning Outcomes; 2011: Pristina, National Qualification Authority Kosovo

Kennedy, Declan; Hyland, Áine; Ryan, Norma: "Writing and using learning outcomes: a practical guide", article C 3.4-1 in Eric Froment, Jürgen Kohler, Lewis Purser and Lesley Wilson (eds.): EUA Bologna Handbook – Making Bologna Work (Berlin 2006: Raabe Verlag); e.g. http://www.tcd.ie/vpcao/academicdevelopment/assets/pdf/Kennedy_Writing_and_Using_Learning_Outcomes.pdf

National Qualification Authority: http://akk-ks.net/

Kosovo Accreditation Agency: http://www.akreditimi-ks.org/new/index.php/en/

ANNEX I_PRACTICAL GUIDE FOR WRITING LEARNING OUTCOMES

Source: Kennedy, Declan; Hyland, Áine; Ryan, Norma: "Writing and using learning outcomes: a practical guide", article C 3.4-1 in Eric Froment, Jürgen Kohler, Lewis Purser and Lesley Wilson (eds.): EUA Bologna Handbook – Making Bologna Work (Berlin 2006: Raabe Verlag)

✔   Begin each learning outcome with an action verb, followed by the object of the verb followed by a phrase that gives the context.

✔   Use only one verb per learning outcome.

✔   Avoid vague terms like know, understand, learn, be familiar with, be exposed to, be acquainted with, and be aware of. These terms are associated with teaching objectives rather than learning outcomes.

✔   Avoid complicated sentences. If necessary use more one than one sentence to ensure clarity.

✔   Ensure that the learning outcomes of the module relate to the overall outcomes of the programme.

✔   General recommendation: 5 – 8 learning outcomes per module.

✔   The learning outcomes must be observable and measurable.

✔   Ensure that the earning outcomes are capable of being assessed.

✔   When writing learning outcomes, bear in mind the timescale within which the outcomes are to be achieved. There is always the danger that one can be over-ambitious when writing learning outcomes. Ask yourself if it is realistic to achieve the learning outcomes within the time and resources available.

✔   As you work on writing the learning outcomes, bear the mind how these outcomes will be

✔   assessed, i.e. how will you know if the student has achieved these learning outcomes? If the

✔   learning outcomes are very broad, they may be difficult to assess effectively. If the learning

✔   outcomes are very narrow, the list of learning outcomes may be too long and detailed.

- ✔ Before finalising the learning outcomes, ask your colleagues and possibly former students if the learning outcomes make sense to them.

- ✔ When writing learning outcomes, for students at levels beyond first year, try to avoid overloading the list with learning outcomes which are drawn from the bottom of Bloom's taxonomy (e.g.Knowledge and Comprehension in the cognitive domain).

- ✔ Try to challenge the students to use what they have learned by including some learning outcomes drawn from the higher categories (e.g. Application, Analysis, Synthesis and Evaluation).

- ✔ It is vital that learning outcomes are clearly written so that they are understood by students, colleagues and external examiners.

- ✔ When writing learning outcomes it may be helpful to you if you focus on what you expect students to be able to demonstrate upon completion of the module or programme.

- ✔ It is standard practice to list the learning outcomes using a phrase like "On successful completion of this module, students should be able to:" [list of learning outcomes]

- ✔ "The key word is DO and the key need in drafting learning outcomes is to use active verbs". (Jenkins and Unwin, Fry et al.)

ANNEX II_ BLOOM' TAXONOMY

BLOOM'S CLASSIFICATION OF COGNITIVE SKILLS

CATEGORY	DEFINITION	RELATED BEHAVIORS
KNOWLEDGE	recalling or remembering something without necessarily understanding, using, or changing it	define, describe, identify, label, list, match, memorize, point to, recall, select, state
COMPREHENSION	understanding something that has been communicated without necessarily relating it to anything else	alter, account for, annotate, calculate, change, convert, group, explain, generalize, give examples, infer, interpret, paraphrase, predict, review, summarize, translate
APPLICATION	using a general concept to solve problems in a particular situation; using learned material in new and concrete situations	apply, adopt, collect, construct, demonstrate, discover, illustrate, interview, make use of, manipulate, relate, show, solve, use
ANALYSIS	breaking something down into its parts; may focus on identification of parts or analysis of relationships between parts, or recognition of organizational principles	analyze, compare, contrast, diagram, differentiate, dissect, distinguish, identify, illustrate, infer, outline, point out, select, separate, sort, subdivide
SYNTHESIS	creating something new by putting parts of different ideas together to make a whole.	blend, build, change, combine, compile, compose, conceive, create, design, formulate, generate, hypothesize, plan, predict, produce, reorder, revise, tell, write
EVALUATION	judging the value of material or methods as they might be applied in a particular situation; judging with the use of definite criteria	accept, appraise, assess, arbitrate, award, choose, conclude, criticize, defend, evaluate, grade, judge, prioritize, recommend, referee, reject, select, support