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The course of development of learning outcomes in the Bologna Process: the current situation in Greece in terms of legislation

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Abstract

The aim of this paper is to delve into the issue of learning outcomes in the development of the European Higher Education Area (EHEA). Section 1 explores the issue of their definition based on the related bibliography in an attempt to highlight the importance of its content. Section 2 places learning outcomes in the Bologna Process by emphasizing the importance of their introduction and their central role in the completion of the EHEA. Section 3 explores the current situation of their implementation in the Greek case in terms of legislation. The concluding section discusses learning outcomes as a priority policy tool in the Bologna Process pointing to some challenges associated with them for the future.

Keywords

Bologna Process, learning outcomes, EHEA.

Περίληψη 1 :

Βασικό ζητούμενο στη συγκεκριμένη εργασία αποτελεί η διερεύνηση του ζητήματος των μαθησιακών αποτελεσμάτων στην εξέλιζη του Ευρωπαϊκού Χώρου Ανώτατης Εκπαίδευσης (ΕΧΑΕ). Αρχικά, επιχειρείται η ανάδειζη του περιεχομένου του όρου με βάση τη σχετική βιβλιογραφία. Στη συνέχεια, αναλύεται η εξελικτική τους πορεία μέσα στη Διαδικασία της Μπολόνια και δίνεται έμφαση στη σημαντικότητα υλοποίησής τους και στον κεντρικό τους ρόλο για την εδραίωση του ΕΧΑΕ. Αφού παρουσιάζεται η εφαρμογή τους στην Ελλάδα σε σχέση με τη νομοθεσία, ακολουθεί μια συμπερασματική συζήτηση για τα μαθησιακά αποτελέσματα ως ένα βασικό εργαλείο πολιτικής μέσα στη Διαδικασία της Μπολόνια.

Λέξεις-κλειδιά:

Διαδικασία της Μπολόνια, μαθησιακά αποτελέσματα, ΕΧΑΕ.

¹ This text is done under the supervision of professor Andreas Vassilopoulos.

Introduction

The Bologna Process is a voluntary, inter-governmental cooperation of its 48 member states to establish the European Higher Education Area (EHEA)². It is based on their mutual trust, common goals and collaboration in an attempt to enhance the attractiveness and competitiveness of Higher Education Institutions (HEIs) in Europe. The member states represented in the Ministerial Conferences by the Ministers in charge of Higher Education have the political will to engage in a process of voluntary convergence in order to make reforms in their HEIs educational structures. These reforms consist, among many meetings and conferences, programmes and working plans, of a variety of tools on which member states commonly agree. These Bologna tools are to be implemented by HEIs in order to facilitate recognition, boost mobility and facilitate employability. What has proved to interconnect all these tools is the introduction, adoption and successful implementation of *learning outcomes*.

The concept seems to be as simple as the simple terms represent. However, the paper proves that the concept not only demands thoughtful consideration but also relates to a shift in educational focus from inputs to outputs. Such consideration starts by shedding light on the definition of the concept. As most of reforms require time, so do the reforms in the course of the Process. Especially for those requiring the interconnection of *learning outcomes* with the Bologna tools the case seems complex, difficult to conceive and ultimately uneven within the member states. This situation is described in the second section where the development of learning outcomes in the Process is examined. As in each member state for the reforms to be adopted a certain transfer process needs to take place, from the decision-making to the implementation phase, so does in the Greek case. Specific legislation requires that the adoption of *learning outcomes* is of great significance for the graduate's knowledge, skills and competences. To what extent *learning outcomes*' adoption as a Bologna policy tool contributes to the consolidation of EHEA remains an issue of considerable attention.

Section 1: Learning outcomes - definitions...

To begin with, defining learning outcomes it would seem interesting to quote what has been stated by the Council of Europe: the principal question asked of the student or the

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² http://www.ehea.info/

graduate will therefore no longer be "what did you do to obtain your degree but rather what can you do now that you have obtained your degree" (in Kennedy, 2007:11). Actually, what is implied with this assertion is the importance of "doing" for the learner. Besides, it should be taken into account that according to Kennedy (2008) international trends in education highlight the shift from the traditional teacher-centred approach to the student-centred approach and this shift demands that all modules and programmes use learning outcomes as a "common currency" for modules/programmes to be more precise and transparent. But before making an attempt to define them and examine them semantically, it seems interesting to make a reference to their origin.

According to Kennedy an attempt to write statements of the outcome at the end of instruction as well as the way to assess it, may be traced back to the behavioural objectives movement of the 1960's and the 1970's in the USA. The idea of writing these statements was basically the work of the American psychologist Robert Mager, known for developing a framework of learning objectives which would define the type of learning and which later would be developed into learning outcomes. (2007:19)

Undoubtedly the literature provides a significant number of definitions on learning outcomes and it is interesting that some be cited below:

Learning outcomes are statements of what the individual knows, understands and is able to do on completion of a learning process." (ECTS User's Guide, 2015:10)

"A learning outcome is a written statement of what the successful student/learner is expected to be able to do at the end of the module/course unit or qualification" (Adam, 2004 in Kennedy 2007:20-21)

"Learning outcomes are statements of what is expected that the student will be able to do as a result of a learning activity" (Jenkins and Unwin, 2001 in Kennedy 2007:20-21)

"Learning outcome: a statement of what a learner is expected to know, understand and/or be able to demonstrate at the end of period of learning" (Gosling and Moon, 2001 in Kennedy 2007:20-21)

"A learning outcome is a statement of what a learner is expected to know, understand and be able to do at the end of period of learning

and of how that learning is to be demonstrated" (Moon, 2002 in Kennedy 2007:20-21)

"Student learning outcomes are properly defined in terms of knowledge, skills, and abilities that a student has attained at the end (or as a result) of his or her engagement in a particular set of higher education experiences" (US, Council for Higher Education Accreditation, in Adam 2004:4)

"Statements of what a learner can be expected to know, understand and/or do as a result of learning experience" (Credit and Qualifications Framework for Wales, in Adam 2004:4)

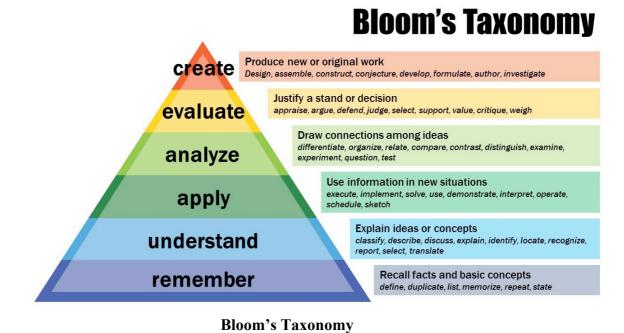
Apparently, these definitions do not have significant differences from each other but seem to be rather similar. It may be claimed that from the shortest to the most analytical type of defining learning outcomes the focus lies on the learner and not the teacher. According to Adam (2004:5) the key aspect all these definitions have in common is the desire for more precision and consideration as to what exactly a learner acquires in terms knowledge and/or skills when successfully completed some learning. He goes on to support that what really learning outcomes are concerned with is more of the accomplishments of the learner rather than the intentions of the teacher. Similarly, Moon³ claims when presenting learning outcomes that the "focus is on the evidence of learning as it is the outcome of learning that matters".

Practically speaking, these statements are formulated by academic staff members with the involvement of students and other stakeholders as mentioned clearly in the ECTS User's Guide (2015:22). Semantically speaking, it may be supported that most definitions include the "parsimonious" phrase of "what a student is expected to do at the end of the learning activity". It is worth examining the key words used in common within the definitions since the simplicity of those may trick one over the exactness and the importance they actually imply.

The most commonly word used in the definitions is the word "do", which implies the necessity of a "doing" for the learner after completing his learning activity. Apart from the verb "do", the verb "demonstrate" is also used in the same way so as to put

³ <u>http://aic.lv/ace/ace_disk/Bologna/Bol_semin/Edinburgh/JennyMoon.pdf</u> (Retrieved May 17, 2019).

emphasis on what the learner will be able to do with the knowledge he gained through the learning process. This focus on the evidence/demonstration of the learning may well be expressed linguistically based on action verbs such as discuss, apply, explain, identify, compare and contrast, arrange, compose etc. instead of state verbs such as understand, know, learn, comprehend, which tend to be more confusing than suggestive of actions. According to Kennedy (2007:28) Bloom's taxonomy may well provide a "ready-made structure" to successfully write learning outcomes and a list of such action verbs to describe that action. What Bloom actually did was to consider learning as a process and based on that he composed six successive stages of learning from the simplest to the most complex. Kennedy (2007) points out that each of those stages is related to a corresponding list of action verbs and as learning outcomes are linked to the learner's "doing" such action verbs are to be used in writing a succinct statement of learning outcome. Some action verbs based on Bloom's taxonomy are shown below:



(Source: http://www.ctetadda.com/2016/09/blooms-taxonomy-of-learning-domains.html)

Another frequently phrase used within most of the definitions is "..a student is expected to..", which might seem complicating or confusing. On the one hand, it may be implied that "expected to" goes back to the traditional way of describing courses or programmes when those were merely written in terms of the teaching intentions focusing on the content to be taught, on the way to teach it and then to assess it (Kennedy, 2008). What

seemed to be important then was the aim/objective of the teacher. At this point it is interesting to note that Adam (2006, 2013) and Kennedy (2008) have come to the same conclusion when discussing the difference between learning aims/objectives and learning outcomes. They both support the idea that the difference between them lies merely on the fact that aims/objectives refer to the teacher's intentions to cover a specific area of learning, whereas outcomes focus on the learner's ability to demonstrate that learning ("doing"), which is the new trend. On the other hand, and based on this new educational trend, the term "expected to" may well highlight that the learning process is designed in such a way that the activities are so intentionally planned to achieve the desired outcome for the learner, "...to be able to do".

An even clearer distinction also seems necessary to be made between learning outcomes and competences. The ECTS User's Guide (2015:22) defines competence as "the proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and professional and personal development". Although competence is used in the literature in association with learning outcomes, Kennedy (2007) supports that the lack of clarity of the term in describing and specifying what the learner's achievements will be at the end of the learning process causes a confusion in its understanding. Therefore, learning outcomes have come to be more commonly used to state what the learner has achieved as well as what he is able to demonstrate after completion of a learning experience.

Overall, it may be summarized as for the main key points of learning outcomes:

- they are succinct and not too detailed statements
- they are written by academics to describe the modules or the programmes of study
- they are written using action verbs (based on Bloom's taxonomy)
- they state the achievements of the learner rather than the intentions of the teacher
- they focus on the result of the learning experience rather than the means of it and last but not least, they are expressed through the knowledge gained, the skills acquired, and the competences developed.

Section 2: Learning Outcomes in the Bologna Process...

The purpose of this section is to present the development of learning outcomes within the Bologna process based mainly on the EUA Trends Reports and the Ministerial Communiqués. The first provide an institutional perspective into European higher education policy discussions among the Institutions based on the learner's needs, on the labour market needs and on society's conditions and challenges depending on the time. They also provide reliable information about how the European Higher Education Area is developed and they prepare the ground for the Ministerial Meetings which eventually publish the Communiqués in which the decisions of the Ministers of the member countries are outlined based on mutual trust, concerns and goals as to the way the European Higher Education is to be more competitive and attractive globally.

Taking as a starting point the year between the Sorbonne Declaration in 1998 and the Bologna Declaration in 1999, in an attempt to track down an official documented reference on learning outcomes, one might just realize that within such an increased diversification of Higher Education structures in Europe there is need for learning outcomes to be introduced.

As Kirstein points out in Trends I (1999:35) it is important that Degree titles be explicit on the learner's qualification within a framework of qualifications based on learning outcomes. Even though learning outcomes do not appear in the original Bologna Declaration or in the Prague Communiqué, reference is made regarding their implementation. It is mentioned in Trends II that the implementation of ECTS should be linked to learning outcomes and that Degree titles should refer to learner's qualification, "not according to years of study but according to learning outcomes" (2001:68). Within such diversity on degree structures across Europe the challenges and the basic motives behind the introduction of learning outcomes is to enhance graduates' employability and academic quality. More specifically, within Trends III there is a growing trend towards structuring curricula in view of learning outcomes, as a way to ensure that academic quality and long-term employability become compatible goals of higher education (2003:28).

The 29 countries signing originally the Bologna Declaration, make a step further to the process of creating a common area of higher Education in Europe by reaffirming the Bologna goals in Prague 2001. In the original Bologna objectives (easily readable and comparable degree, two main study-cycle systems based on one common system of

credits-ECTS, quality assurance, enhancing of mobility and the external dimension of higher Education) three more are added (life-long learning, involvement of students and social dimension) in order to establish the European Higher Education Area (EHEA). However, no point of reference is made still on the accurate description of what a learner is able to do after he has obtained his degree. Therefore, learning outcomes do not seem to be officially documented in the Bologna Process so far.

As the Process moves along, learning outcomes seem to make their official premiere in the Berlin Communiqué in 2003 where Higher Education Institutions (HEIs) together with employers and ministries are encouraged to elaborate a framework of comparable and compatible qualifications which aims at describing qualifications based on workload, level, learning outcomes, competences and profiles (Berlin Communiqué, 2003:4). Though bizarre or difficult to fully comprehend their implementation at first, what may be assumed at this official starting point is the motives behind such a new entry. In Trends III it is clearly stated that there are two main driving forces, which lead the 33 participating countries at the time towards a sustainable reform of Higher Education in Europe, and those are of the academic quality and graduates' employability (2003:8). Within this reformable nature of the EHEA, Bologna asks for its basic tools to be cautiously and not superficially implemented, based on learning outcomes as a way not only to meet in long-term the labour market's needs but also to focus on the learner's needs. It is worth underlying that the linking of learning outcomes to the main action lines of Bologna though pre-mature seems to start spreading before been noticed as most significant.

This spreading of learning outcomes seems to provoke considerable activity in most of Bologna goals. Firstly, Governments and HEIs are asked to be cooperating so as to make reforms on their degree structures by reforming their curricula based on learning outcomes. In addition, Qualifications Frameworks should be elaborated based on learning outcomes. In Trends V it is reported that despite the implementation of ECTS and Diploma Supplement (DS), efforts should be made to make better use of those by linking them closely with learning outcomes in order to enhance mobility and recognition (2007:47). More importantly, priority is given within the Process on the shift from teacher-centred to student-centred learning, where the traditional input-related methods having the focus on the teacher has moved to the learner. This shift has been linked to life-long learning strategies in an attempt to recognize all types of learning from "cradle to grave" as Adam describes (2004:21). It is therefore pointed out

in Trends III, that the integration of learning outcomes should not be seen separately but "implementing the Bologna tools becomes most fruitful if they are taken as a package and related to each other" (2003:106).

As the Bologna Process develops, learning outcomes seem to be more frequently addressed. Since the introduction of innovative teaching processes, aiming at the student-centred approach, there is need for HEIs to generally revise their pedagogical concepts. As stated in the Bergen Communiqué 2005, emphasis should be put on a structural change of curricula and a modularized structure of degrees, which will make use of clearly defined learning outcomes in order to explicitly describe the knowledge, skills and competences acquired by the degree awarded. Also, within Bergen Communiqué it is stated that Governments, institutions and social partners should be involved in the adoption of a national qualifications framework based on learning outcomes. However, at this stage of the Process a curricular reform based on learning outcomes seems to be a rather difficult process as their proper implementation presupposes the full comprehension of the concept itself. It is particularly reported in Trends IV that between HEIs the notion of learning outcomes ranges from criticism and vagueness to some extent of familiarity and partly implementation as a useful tool (2005:16). Therefore, the future challenge of Bologna seems to be the use of learning outcomes as a useful tool and not as an accessory. (Trends IV, 2005:18).

Following the process up to the next ministerial meeting in London 2007 HEIs support the overarching idea of a more student-centred learning approach but only to be realized if the adoption of learning outcomes is properly introduced and perceived in the EHEA. Both in the Trends V and in the Bologna Progress Report 2007 it is evident that although learning outcomes were absent in the beginning of the Process, they are slowly but gradually gaining ground having multiple applications in most, if not all, Bologna action lines as summarized below based on Adam (2008):

- Learning outcomes are considered the "key to speed up the slow moving from the teacher-driven to student-centred concept".
- Learning outcomes should be used "holistically" regarding ECTS and DS to ensure recognition of all types of learning at any time that learning took place.
- Learning outcomes and the focus on the learner are the two key-elements that link all Bologna aspects.

• Learning outcomes implementation may be slow but their progress should be reinforced, especially in terms of linking them to the NQF.

• Learning outcomes are considered imperative and should be used by all participating countries as a precondition for achieving the goals of the Process (NQF, ECTS, DS, Quality Assurance, Recognition of Prior Learning, lifelong learning).

For the first time in the Ministerial Communiqué in London 2007 there is much more reference in the use of learning outcomes than ever before, not only in terms of frequency but also of significance. Adam states (2008:4) that "there is clear pattern here" because it is obvious that ministers not just call on learning outcomes as in Berlin 2003, not just apply learning outcomes as in Bergen 2005, but put further emphasis on learning outcomes as follows:

- First and foremost, to move towards student-centred higher education
- To ensure proper implementation of ECTS based on learning outcomes
- To develop modules and study programmes based on learning outcomes
- To further develop the process of curriculum innovation based on learning outcomes (London Communiqué, 2007:2-6).

Almost a decade after the Bologna Declaration, reports show that as expected, the EHEA could not remain unaffected by the main issues our society is faced with, such as the global economic crisis, the impact of globalization, technological advancements and the ageing population (Leuven Communiqué, 2009). Within this ministerial meeting it is affirmed that much has changed in the EHEA with most of the Bologna tools been implemented regardless of the variety in the national, institutional and cultural context of their implementation.

Priority is given at this point to the shift in the use of learning outcomes within the policies of life-long learning. What is considered crucial in response to the ageing population challenge is the widening participation opportunities in Higher Education and the recognition of prior learning (RPL) in a developed NQF based on clearly defined learning outcomes. Although some development has been reported in Trends VI about the implementation of learning outcomes, HEIs' understanding on how to use

them in NQF still seems low which makes life-long learning policies be rather unsuccessful in many countries (2010:7).

Another aspect of Bologna Process related to learning outcomes that seems to be of significance at this point is the creation of flexible curricula by HEIs and the emphasis on student-centred learning. It is reported that progress is made having study programmes functioning based on modules. In addition, the use of learning outcomes appears to be encouraging.

However, a numerical comparison as for their development during the years is regarded impossible. This is because the question of "have learning outcomes been developed" was clearly made for the first time within a relevant questionnaire in 2010 (Trends VI, 2010:48). Despite the shift to modularisation, many study programmes do not seem to include a set of defined learning outcomes which is because there is still confusion regarding their definition. Not to mention the fact that learning outcomes seem to be misinterpreted with the grade the learner has obtained after been examined (Trends VI, 2010).

Therefore, it could be supported at this point that after a whole decade of Bologna achievements in a nationally, culturally and institutionally varied background, efforts still need to be made in terms of complexity rather than quantity (Trends VI, 2010). One striking example is the clearer and stronger link of learning outcomes to ECTS, DS, NQF and student-centred learning. As Adam (2008:5) argues, "the humble learning outcome has moved from being a peripheral tool to a central device to achieve radical educational reform of European higher education".

Such an assumption may be evidently true as in Bucharest Ministerial meeting the participating countries put forward the definition and evaluation of learning outcomes within the top priorities. More so now than ever, higher education is at the "core heart of the countries' efforts to strive for responsible, creative and critically thinking graduates" able to respond to the needs of the labour market but also to face the difficulties of a society undergoing critical issues such as the economic crisis and youth unemployment (Bucharest Communiqué, 2012:1).

It has been affirmed that so far, the state of implementation of learning outcomes has been slow, mostly positively accepted but with much work in progress by many participating countries if the EHEA is to be fully consolidated. Additionally, it has been argued that learning outcomes seem to be multi-functioning together with the other Bologna tools, mainly in parallel with ECTS, DS and NQF. Their role and

function should not be isolated but interrelated with the previously mentioned tools. It is evident that learning outcomes have a reputation already in the EHEA, but they need to be meaningfully implemented and surely, their development should not be lagging behind the other mentioned tools.

In the years that follow the landscape of the EHEA changes dramatically especially up to the last ministerial meeting in Yerevan 2015. Due to the economic crisis and the increased youth unemployment rates, which have undoubtedly affected the EHEA, the face of Europe has been transformed into a "weakened" one. All 48 participating countries in Yerevan have shared once again the common goals and commitments to consolidating the EHEA but the "weakened" face of Europe and the uneven implementation of Bologna tools has given rise to crucial matters having *learning outcomes and graduate's employability as the "hot issues*" (Trends VII:39) of discussions. While in 2010 the focus was on the identification of learning outcomes, in 2015 the focus lies on their meaningful implementation (Trends VII, 2015).

The EHEA, thanks to the Bologna reforms of the last decade, although been shaped and progressed in many fields it is faced with a less hopeful way because of the complexity of issues addressed at this point. Specifically, there has been much of activity toward the implementation of learning outcomes. It is still reported that although in some countries learning outcomes have been introduced in HEIs study programmes, there seems to be no radical development in Institutions' curricula, including learner's assessments procedures (Trends VII, 2015).

The main issue at the core of the Process regarding the development of learning outcomes is that they should be regarded as the prerequisite of fostering graduate's employability in the changing labour market. The learner should be placed in the centre of the teaching-learning-assessment process and the teacher should be the one facilitating the process at the end of which the graduate will have learned how to do, how to critically think, how to collaborate and negotiate within a broad range of working environments. To put it another way, those "transversal skills" the graduate will have acquired are the ones that will actually make the graduate employable in the demanding and continually changing labour market. Therefore, now more than ever, the clearly defined learning outcomes are placed in the forefront of Bologna's priorities toward a more changing conception of teaching and learning. They should be considered the prerequisite for the consolidation of the EHEA and its long run success.

Section 3: The current situation in Greece in terms of legislation...

Considering the development of learning outcomes within the Bologna Process as a prerequisite for the consolidation of the EHEA, it is worth examining the Greek case in terms of legislation. In other words, this section places the adoption of learning outcomes in the Greek Higher Education system based on the biannual ministerial meetings (Communiqués as analysed in the previous section), the Greek legislation passed on specific Bologna goals that are linked to learning outcomes and the Bologna Process Implementation Reports of 2012 and 2015.

Before "tracking down" learning outcomes as the new trend of educational reforms in the Greek HE system, it is worth reconsidering that learning outcomes were *first* and *officially* documented in the "turbulent decade" due to the all the reforms that took place, "Bologna 1999 – Leuven 2009", just in Berlin Communique in 2003. It takes two more ministerial meetings, that of Bergen in 2005 and of London in 2007, to address learning outcomes as the main challenge within the Process. Similarly, it takes two ministerial meetings, that of Berlin in 2003 and of Bergen in 2005 to finally "detect" learning outcomes within the Greek legislation even as a term.

Specifically, it is stated in Law 4635/E5/2006 -referring to former Technological Educational Institutions- that the study programmes should refer to the course outline including the description both of the theoretical and the practical part of the course, the teaching objectives and the desired learning outcomes. Surprisingly perhaps, within the same legislation, and without the slightest reference to what learning outcomes is really all about, reference is vividly made to their core meaning by determining when courses are successfully completed: emphasis is made on the successful completion of a course provided that the learner has gained the knowledge, skills and competences not only on a specific subject field but also on related ones with extra attention on the so called "transversal skills" (i.e. learner's skill to take initiatives, learner's critical thinking, team-working ability, solving complex problems etc.).

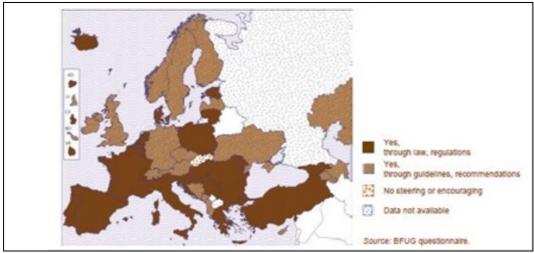
A year after, enhancing the use of learning outcomes through the Greek legislation seems to be more precise and complete as learning outcomes are not seen as an isolated tool that must be implemented but as the useful tool that is necessary to be linked with the ECTS and the DS, exactly as Bologna asks. To be more specific, the Greek Minister at the time, Ms Yiannakou, takes into account the Berlin Communiqué 2003, the importance of implementing the ECTS in European Programmes and the

previously passed legislation on Quality Assurance in HE, ECTS and DS (3374/2005) to further develop the implementation of learning outcomes by explicitly and vividly linking them to ECTS.

Therefore, under the 1466/2007 legislation it is clearly stated that the ECTS is based on the student's workload required by the student to achieve the objectives of a study programme depending on the learning outcomes and the knowledge, skills and competences gained after successfully completed any learning process. Also, it is clearly defined what student workload is and that it is important to link that workload to the learning outcomes achieved by completing any learning process such as lecture, laboratory activities, seminars, individual study, assignments preparation, practical training, exams, dissertation etc. In addition, it is clearly defined what learning outcomes are and who they should be determined/written by. Most importantly, the definition seems to be similar to the ones used in the EHEA. Specifically, learning outcomes are defined as the sum of knowledge, skills and competences that the students ought to know, comprehend or be able to demonstrate after successfully completed a specific educational process, short or long in time. They should be stated clearly by the academic teaching staff for every educational component and activity of the study programme and they should be described in the Information Package/Course Catalogue of each HE Institution.

However, within both articles 1 and 2 of 1466/2007 it is evident that there is a constant "or" between objectives and outcomes when determining the allocation of credits, when describing the student's workload, when describing the learning processes. Therefore, semantically speaking, the academic staff responsible to describe the educational processes, the modules/programmes, could easily choose to describe the objective rather than the outcome. One might be generally confused of the two terms and finally not be able to link the credits allocated to the desired outcome, which is what the learner will be able to do. Even in the appendix of 1466/2007 (part two) when describing modules, it is stated that credits allocated to the student should be based on the workload required to achieve either the module/programme's objectives or the learning outcomes. Let us not forget the trap that one might easily be tricked into when trying to look into the difference between the terms, as mentioned in section 1. Finally, it is clearly stated that the objectives of the course should be preferably expressed in terms of learning outcomes and competences.

As derived from the above and based on the Bologna Process Implementation Report 2012 the Greek case is one of the many Bologna countries that have encouraged the use of learning outcomes through laws and regulations (see Figure below):

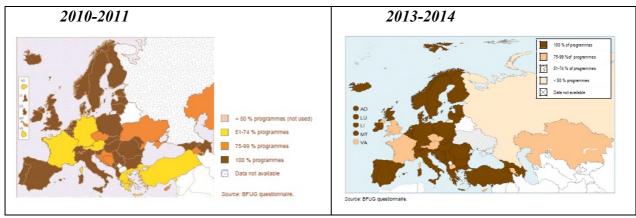


Encouraging the use of LOs in national policy, 2010/2011

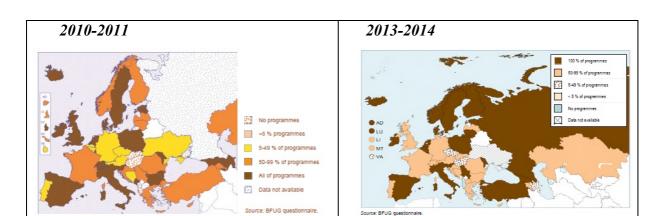
(Source: Bologna Process Implementation Report 2012:51)

Also, based on the previously mentioned legislation 1466/2007, it is evident that the Greek case has followed the definition of learning outcomes as mostly used in the EHEA. However, as in the case of other Bologna countries, the question still remains of how far the definition is known, understood, and actually applied in practice when it comes to individual HEIs' teaching staff members who have to apply them for the courses they are delivering (Bologna Process Implementation Report, 2012:52).

At this point it is worth making a comparison between 2010/11 and 2013/14 snapshots on the state of implementation of ECTS to study programmes in Greece but most importantly the extent to which ECTS is linked with learning outcomes:



Share of programmes using ECTS credits for all elements of study programmes



[Source: Bologna Process Implementation Reports 2012:48 (left) & 2015:70(right)]

Extent to which ECTS is linked with learning outcomes in HE programmes

[Source: Bologna Process Implementation Reports 2012:48(left) & 2015:70(right)]

The main conclusion derived for the Greek case is basically the following: it is considered rather positive that within the three-year time between the two Bologna Implementation Reports, there has been much progress in the share of programmes in which ECTS is implemented, that is from 51-74% of the programmes to 100% of the programmes (as shown in the first two comparing figures). Nonetheless, the second two comparing figures prove that linking ECTS with learning outcomes is still lagging behind, compared to the use and implementation of ECTS which has gained much ground.

All in all, as in London Communiqué 2007 (making the shift to student-centred learning a priority) and in Yerevan Communiqué 2015 (meaningful implementation of learning outcomes), the implementation of Bologna tools may only make sense on condition of a more learning-outcome approach. Therefore, based on the Greek legislation as presented above and the two Bologna Implementation Reports, the state of implementation of learning outcomes for the Greek case reveals room for further development.

Section 4: Discussion...

In the course of this assignment an attempt has been made to highlight the importance of the "parsimonious" definition of learning outcomes, to follow their development within the Bologna Process and to place them in the Greek legislation referring to their implementation in the Greek HEIs.

Regarding the definition of learning outcomes, the evidence is clear; the numerous definitions existing in the literature may be "poor" in terms of vocabulary, but it is this simplicity that actually puts these statements in the spotlight. Based on the key-words used in the definitions what is of significance is the achievements of the learner upon the successful completion of any learning process. Although the purpose of the first section was not to delve into the issue of how to write learning outcomes, reference was considered necessary to be made on the fact that a good starting point and helpful to academics when writing learning outcomes is Bloom's taxonomy. But does the use of the appropriate action verb always provide a good clue as for the assessment technique which will ultimately "measure" the desired outcome?

In addition, during the research on this assignment what is evident is the fact that learning outcomes are still confused with the aims/objectives of the teacher when describing modules/programmes. Another issue for consideration arises: if so many references have been made to learning outcomes over the last 15 years or so in Bologna related documents, seminars, and conferences' reports, even in Google search there are numerous hits on them as to what they are and how to write them, why is it that confusion still exists around them?

As far as the development of learning outcomes in the Bologna Process is concerned, the main conclusion to be drawn seems to be not entirely optimistic. Early enough in the Process the motives behind such a new policy tool were evident as the need for precision and transparency of the learner's qualifications was considered and still is a priority. Though "turbulent" the decade 1999-2009 was characterized in terms of all educational reforms necessary to be made to improve the efficiency and effectiveness of the EHEA, one of EHEA's "building blocks", that of learning outcomes, seems to be developing slowly. Adam (2004:3) points to "the exalted status that learning outcomes have achieved bolstered by the ubiquitous references to them which comes in stark contrast to the poor level of understanding and implementation across Europe".

Even though they have been acknowledged as most important to use having implications to all Bologna aspects, it seems problematic that setting their definition a priority and making their meaningful implementation a "must" for the full realization of the EHEA, appears late in Bucharest (2012) and Yerevan (2015) Communiqués. Is this delay probably due to the fact that academic staff seemingly accept learning outcomes as a means to clarify the results of learning but actually see them with much scepticism?

Trying to discuss the issue of learning outcomes regarding their role and development using terms such as benefits and drawbacks might be hazardous at this point. However, some scepticism exists indeed, and reservations have been made around them. Adam (2013) discusses briefly that learning outcomes have raised concerns basically from a philosophical viewpoint. He (2013) explains that philosophical objections raised by disbelievers of learning outcomes are based on the grounds of their being "antithetical to the traditional university function". Academic study, they claim, is open-ended by definition and learning outcomes are seen as a "prescription" leading merely to a skill-based approach of ticking boxes. He goes on to explain that the well-aimed formulation of learning outcomes is technically a process that necessitates the full involvement of academics. So, the more their mistrust the easier to create misleading and ambiguous learning outcomes.

In the course of Bologna Process, learning outcomes have gained momentum after London Communiqué and the discussion around them draws the conclusion that they should not be seen just as the explicit statements describing the "doing" of the learner. They are that **policy tool** which if combined with the other Bologna tools (ECTS, DS, NQF) they are to represent a whole educational approach, shifting the focus from the teacher to the learner. Adam explains that when Thomas Kuhn in 1962 developed the concept of "paradigm shift" he thought of scientific advancements as a "series of peaceful interludes punctuated by intellectually violent revolutions" (2008:6). If Bologna Process is seen as the series of peaceful interludes with its series of events, ministerial meetings, follow-up group reports and Communiqués, peacefully and voluntarily made by the Ministers of Education of its Member States, then the violent revolutions – reforms, new policy tools to be implemented- are indeed punctuated – "demanded" by the needs of learner, the citizen, the employer to respond to the challenges of the time. The crucial question lies on whether academic staff and HEIs are ready or willing to change mentalities and strategies so as to use those new policy tools cautiously to the learner's advantage.

When referring more specifically to the Greek case it seems that the change in mentality is not an easy case. Early enough in the course of Bologna Process Kladis states that "there is limited activity regarding learning outcomes in Greece and that the shift from teaching-oriented to learning-oriented approaches using learning outcomes has not begun in a systematic way though some isolated initiatives have taken place" (in Adam, 2004:12). What could also be drawn as a conclusion for the Greek case is

that though legislation has been passed on the use of learning outcomes to describe and reform curricula by linking learning outcomes closely to ECTS, DS and student workload, many study programmes still seem to be described based on the academic staff's intentions/aims rather than the learner's outcomes. If Greece as a Bologna member country is a country that should "download" policy tools from the member countries that "upload" their good practices, what may be the factors that this kind of transfer is inhibited? Does this make Greece as a member country to have an "unreliable face" after all to the Ministerial Meetings showing that its Institutions' strategies need to be further developed towards a more systematic and applicable (as for the new tools introduced) way?

As it is the case for every premiere having different responses the same may be for the case of learning outcomes. But if that premiere necessitates that the learner is the protagonist then learning outcomes ought to be considered the integral part of that complex curricula reformation. Does their development prove slow and difficult due to the changes induced also in the teaching methods and in the assessment techniques? Is it for every member state that their development proves slow and difficult? If there is indeed a "considerable bank of global and European good practice experience to be found in those countries and Institutions that have already introduced them" (Adam, 2008:13) which could be the reasons that their development in some countries is slowed down whereas in others their meaningful implementation has gained ground? If learning outcomes are indeed a policy tool and Bologna policies are transferred from the member states which have truly and fully implemented those tools to the ones lagging behind, which may be the inhibiting factors for the slow progress in the latter ones? Surely, it is not the aim of this assignment to provide answers to all questions raised above but only to finally make some speculations over the development of learning outcomes based, partly, on the closing reference of Stephen Adam (2008:19) to Charles Darwin: "It is not the strongest of the species that survives, nor the most intelligent, but the most responsive to change".

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