WHAT IS A ‘SUCCESSFUL LEARNING OUTCOME’?

Vidar Gynnild

NTNU, Norwegian University of Science and Technology (NORWAY)

Abstract

The Norwegian Agency for Quality Assurance in Education (NOKUT) has conducted an extensive study of learning outcomes (LOs) in higher education (HE). The survey included 127 undergraduate programs in six disciplines at 32 institutions, and the issue was whether or not learning outcomes were consistent with the National Qualifications Framework (NQF). Conclusions are rather disappointing since in many instances LOs appear almost identical to templates presented in NQF communicating poorly what students can and are able to do. Academics expressed confusion and shortcomings in terms of concepts and language in NQF. This is theorized as the outcome of an encounter between an academic culture and an expanding managerial culture. Formal requirements associated with learning outcomes were imposed rather than negotiated, and ‘successful’ learning outcomes were defined on the basis of formalities of language rather than on their impacts on learning. Much needs to be done for academics to regain lost territories in education to regain ownership to their own design processes.

Keywords: Learning outcomes; academics, managerialism, qualifications framework, descriptors.

1 INTRODUCTION

European higher education has undergone comprehensive changes over the last 15–20 years. This has occurred due to the demands of rapidly changing labor markets and the need for highly skilled workers in innovation and entrepreneurship. An important development in recent years has been the introduction of the European Qualifications Framework (EQF) and that of the Bologna process. These frameworks consist of three educational cycles (bachelor/master/doctorate) and three categories of qualifications (knowledge/skills/competence). The aim of these frameworks is to provide some sort of a ‘common currency’ in education to ease transitions between modules, programs and institutions.

In the country under scrutiny, the National Qualifications Framework represents a hybrid between the aforementioned frameworks, and all higher education institutions were urged to make study programs and curricula consistent with this framework within 2012. As part of the process, a National Agency for Quality Assurance (NOKUT) was established as a controlling authority to monitor the reform, and to conduct institutional checks to see if educational provision locally met the agreed standards.

An important feature of the reform was the introduction of ‘learning outcomes’ signifying a shift to a greater emphasis on learning rather than on teaching and content. The current article draws on a comprehensive study that examined the extent to which learning outcomes at program level were consistent with targeted level descriptors of the National Qualifications Framework. 127 study programs were scrutinized by five committees, each consisting of academics from two countries.

This study explores the following research questions: What is the theoretical basis for the use of learning outcomes (1), what are the characteristics of ‘successful learning outcomes’, and, what are the ideological roots of the higher education reform analyzed in this paper? (3) The study draws on data provided by the five evaluation panels, and the author analyzes these findings theoretically.

2 CONTEXT AND RATIONALE

Qualifications frameworks are seen as an inherent part of the European integration process, facilitated by joint structures of education to encourage mobility and ease transitions between institutions. A major step forward in this area took place in Bologna in 1999 when the Ministers of Education of 29 European countries convened to establish a common European Higher Education Area (EHEA). The Bologna Declaration spells out a number of action lines in which the introduction of learning outcomes should play a central role [1]. By 2010 all third level institutions throughout the European Higher Education Area were expected to adopt learning outcomes and redesign curricula according to this approach. This was later extended to include national frameworks of qualifications for the entire higher education sector. In effect, this implied the replacement of existing credits and hours of study in favor of stated learning outcomes for Bachelor, Master and PhD studies [10].
The introduction of learning outcomes in higher education was motivated by a desire to become more transparent about students’ real qualifications at the end of their studies. Historically, specifications of content and lectures served as major steering mechanism, often referred to as a teacher-centered approach. Over the last decades a conceptual shift has taken place, often referred to as outcome-based education as opposed to a teacher-centered approach. A similar and probably more ambitious distinction is made between the Instruction Paradigm and the Learning Paradigm [3].

The current study refers to the introduction of outcome-based education in one country. As part of the process, the Ministry of Education mandated all institutions to align modules and programs to the National Qualifications Framework (NQF) by the year 2012. This study draws on data collected by inspectors monitoring the implementation of learning outcomes at program level within six disciplinary areas. The overall purpose was to check consistency with the National Qualifications Framework, and seeking to identify successful and less successful outcomes’ descriptions. ‘Successful’ in this context implied the application of stem sentences in the descriptors of the National Qualifications Framework.

A total of 131 assessments were conducted, and data collected in six reports. However, a summary report conveys main findings and conclusions. Only 64 out of the 131 cases were up to standards. A range of issues were identified indicating a challenging process of implementation at institutional level. While administrative staff did their best to adhere to national policies and guidelines, academics were left in a state of confusion when encountered by new concepts and requested to alter their practices. Some complained about inadequate support, while others believed their efforts were greater than the gains. Understanding the distinctions between knowledge, skills and competence was another issue. Clearly, in several instances constructs were seen as technical terms with limited applicability, especially in arts and architecture where learning does not easily lend itself to categorization.

The analysis is informed by theories of Outcomes-Based Education and New Public Management. Rather than being trapped in formalities of language, the author argues in favor of the essence of the categories, as summarized in EQF. In this case, three major category descriptors can be used as a source of inspiration rather than acting as a time consuming and demotivating mental barrier.

3 OUTCOME-BASED EDUCATION

The application of outcome-based education (OBE) draws on publications dating back to the late 1940s. At that time the specification of (learning) objectives was seen as an inherent part of rational planning models, and the application of goals seen as a logical starting point before getting engaged in any activity [2]. Tyler rejected the definition ‘of objectives as topics, content, and concepts that are to be dealt with …because they fail to indicate what students are expected to do with the contents’ [2, p. 94]. While objectives denote educational intention, Tyler was sceptical to objectives that do not specific behaviour and thus are too vague to specify observable changes. He believed the most useful way of expressing is in “terms which identify the kind of behaviour to be developed in the student and the content or area of life in which this behaviour is to operate” [14, p. 46-47].

Critics argued that the application of the term ‘educational’ was far from the level of specificity Tyler recommended. Some years later, Mager [11] substituted the term ‘educational’ with ‘instructional’, thus indicating a direct link between teaching and learning. By this Mager advocated a more structured and mechanized approach to instructional design by specifying criteria for the use of language, the conditions under which the performance was to take place, and the standard or level of performance considered acceptable [2, p. 95]. These three criteria illustrate influences from positivist philosophy in science emphasizing control and measurement in educational settings.

A further shift in terminology occurred when the term ‘behavioural’ objectives entered the scene and was used to observe actual changes in the student resulting from the interaction between the teacher and the student. Eisner [5] believed such objectives were achieved ‘through a distinct curricular emphasis, through drill and practice, which result in the reliable performance of a given task’ [2, p. 96]. He thus downplayed learning achievements as a result of indirect learning activities.

In adopting the term ‘outcomes’ in place of objectives, Eisner differentiated between the latter, which imply a preformulated specific goal and the former which, ‘are essentially what one ends up with, intended or not, after some form of engagement’ [5, p. 103]. … Outcomes, in Eisner’s terms, are broad overarching consequences of learning which do not meet the stringent criteria which necessarily apply to behavioural objectives [2, p. 99].
“Outcome-based education” was later elaborated by scholars, particularly in the Anglophone world. Despite differences on aspects of it, the following definition has been universally accepted: Outcomes are ‘clear learning results that we want students to demonstrate at the end of significant learning experiences’ [12, p. 2]. This definition is accompanied by a very optimistic view of students’ learning potential: ‘All students can learn, but not on the same day in the same way’ [12, p. 20]. The aim is to enable students to become successful on outcomes of importance for their careers; ‘… it focuses on and documents the substance of what students have actually learned and can do …’ [12, p. 38].

4 ANALYSIS

Given the sustained efforts at implementing OBE principles in education, one would expect evidence of some success. However, contrary to expectations the evaluation study reported on widespread frustration, much due to the introduction of terms of concepts unfamiliar to the academics involved. Despite sustained efforts institutions reported on slow progression, and were generally having a hard time in coping with requirements as stated in the qualifications framework. Some even experienced a severe mismatch between invested time and potential gains as documented in achieved learning.

To be deemed ‘successful’ learning outcomes, formal requirements of language had to be met. Each learning outcome should adhere to the respective cycle and competence category by utilizing active verbs and phrases suggested in the national qualifications framework. However, attention was directed towards the signs rather than on what was signified. This reminds us of a typical feature of a surface approach to learning, which in our case served as the path to ‘successful’ learning outcomes. By contrast, moving from a surface approach to a deep approach is like crossing a threshold:

To illustrate the consequences for student learning outcomes, a student who takes a surface approach to reading an article with a principle-example structure … may remember the example, while the student who takes a deep approach is more likely to understand the principle [7, p. 31].

Some examples of ‘successful’ learning outcomes in the evaluation study ignore requirements of what the candidate can and is able to do by statements such as ‘has basic knowledge’; ‘has knowledge about’; etc. These are examples of rhetoric without value neither for the student, nor employees:

Because outcomes involve actual doing, rather than just knowing or a variety of other purely mental processes, they must be defined according to the actions …When defining and developing outcomes, educators must use observable action verbs – like describe, explain, design, or produce - rather than vague or hidden nondemonstration processes - like know, understand, believe, and think [12, p. 13].

Most notably, the definition of ‘successful’ learning outcomes did not at all touch upon their effects on curriculum design and impacts on learning. Criteria were directed towards features of language to meet the prescribed vocabulary, as seen in the qualifications framework. This practice can be traced back to the idea that education should be made more ‘scientific’ and accountable to justify public spending [8]. What had previously been held implicit should now be made explicit with less space for intuition and tacit knowledge. Learning outcomes made higher education more manageable from non-academic positions; “what happens in the classroom and in the minds of the students and their teachers is wholly conducive to systematic monitoring, auditing and management [8, p. 223].

Over the last decades there is research to indicate a close connection between educational reforms and growth in the economy [4]. It all boils down to becoming as effective and efficient as possible to increase annual numbers of graduates. The ideological roots of can be traced to Australia and New Zealand, commonly known as New Public Management (NPM). The aim is to transfer principles of organization and leadership in private sector to the public sector. In the higher education this has yielded three transformations, as cited below:

- First, authority and power over university affairs are, conceptually at least, separated from disciplinary competence. All ‘affected groups’ are, in principle regarded as participants with equally legitimate stakes in university affairs.
- Second, leadership functions and administrative structures are strengthened both in extent and in the formal competence of administrators and their authority as decision makers.
- Finally, the notion of academic performance is redefined from one which emphasizes its ‘inherent’ quality to one in which measurable quantitative aspects are prominent. Here, qualitative considerations are presumed to be implied by the performance indicators employed. This academic activity is open to external scrutiny by higher administrative authorities.
Disciplinary competence is thus no longer necessary to evaluate disciplinary performance [4, p. 308].

Let us then move to the discussion section to elaborate on further issues of outcome-based education, and point to future directions in the application of qualifications frameworks in higher education.

5 DISCUSSION

The notion of ‘threshold learning’ or ‘minimum learning outcomes’ were alien constructs to the academic community. They were accustomed to the use of learning objectives expressing intentions of learning rather than reporting on achieved learning outcomes prior to the semester start: “We have completely lacked clear guidelines, instructions and recipes ... and this has led to much uncertainty and confusion” [13, p. 12]. Taxonomies of learning outcomes are typically used in creating learning objectives; however, due to formal requirements this was no longer an option. The report commends that the Ministry creates a unique taxonomy to establish a ‘common language in the form of verbs that can be used and understood across institutions’ [13, p. 21].

Furthermore, the qualifications framework with its unique descriptors alludes to an instrumentalist view of knowledge and learning. It assumes that learning can be split into categories and levels regardless of the epistemological traditions of the nature of the discipline. Such frameworks easily give the shine of a logical order; however, represent a mechanized view of knowledge and so may be of little help in real learning settings. It meets the criteria of transparency, but does not provide operational advice.

Due to the nature of learning, the idea of reporting on outcomes prior to the learning process may be perceived as a counter intuitive exercise, and many would reject this procedure. By definition learning cannot be predicted; however, by doing so convey a false, or at best inadequate, image of learning.

I know the fragile nature of the relationship between what I say and do, and what students learn. The huge differences in the backgrounds, experiences, attitudes, habits and abilities of my students mean I can be sure that some of the students will ‘get it’ better than I. Some, conversely, will be more confused than when they started my course... change cannot be predicted, for individual students or whole classes [15].

The enforced application of level descriptors and categories caused stress and uncertainty for users. While the description of knowledge was considered fairly straightforward, problems were encountered in the application of the categories of skills and general competence. Essential meanings of each of these categories had not been captured by academics resulting in more or less random applications.

By organizing knowledge around discrete competences, OBE overlooks the important cross-curricular and inter-disciplinary demands encountered in learning a complex task. It further assumes that knowledge acquisition proceeds in a linear way such that one outcome is linked in a stepwise direction to another. This is one of the most common criticisms made of OBE and yet it appears to be ignored in the move towards implementation [9, p. 328].

Learning outcomes, despite their apparent accuracy, are only precise if they are interpreted by means of experience and appropriate background. Since students do not possess this background, learning outcomes will not make much make sense to them. It is the content and structure of the learning sessions that that set the path to pursue for students. At this stage we do not know if standards have been raised, maintained or compromised as a result of the aforementioned efforts. It appears that key actors do not need to know to proceed. Are we talking about ‘... procedures that themselves provide legitimacy through symbolic communication’? [6, p. 197].

While the introduction of learning outcomes was embraced by managers, this was not necessarily the case for academics that were familiar with design including an emphasis on content, tasks, tutorials and assessments. As documented in the previous sections, current interpretations of the qualifications framework as seen in learning outcomes does not seem to be the best solution. One option would be to use category descriptions of the European Qualifications Framework, as seen in the matrix below.
In the context of EQF, knowledge is described as theoretical and/or factual.

In the context of EQF, skills are described as cognitive (involving the use of logical, intuitive and creative thinking), and practical (involving manual dexterity and the use of methods, materials, tools and instruments).

In the context of EQF, competence is described in terms of responsibility and autonomy.

Source: https://ec.europa.eu/ploteus/en/content/descriptors-page

These descriptions maintain essential meanings of the categories, while leaving space for academics to decide exact wording of learning outcomes. This responsibility requires the recognition of skills and experience of academics, which would also promote a sense of ownership to educational frameworks. The interpretation of learning outcomes as intended rather than achieved outcomes would make the construction of learning outcomes more intuitive and realistic in terms of aspirations. This would also legitimize the application of taxonomies to include learning at the full range of cognitive levels. Any report on ‘minimum learning outcomes’ will remain silent on standards at the upper end, which is of course essential information to learners. Terms such as ‘basic’, ‘medium’ or ‘advanced levels’ of knowledge and skills are basically vacuous until they are realized contextually. In that sense, verbal frameworks can offer an indication of learning, but will need contextual translations to make sense.

### 6 CONCLUSION

The adoption of the national qualifications framework marks a commitment to the European integration process in the higher education area. While the intentions of the reform may have been the best, this study provides evidence of some of the challenges, especially with the construction and application of learning outcomes. Often, support structures to promote ‘successful’ learning outcomes were either absent or insufficient to meet the needs of academics who struggled to meet requirements of verbal and strictly formalistic nature. Respondents felt trapped in a framework they felt were too detailed and difficult to make sense of, and a mismatch was experienced between invested time and educational gains. Despite optimistic attitudes initially, academics were later left in a state of frustration, pinched in formalities of language and outcomes-based education, only to go for minimum achievable standards.

While qualification frameworks have been embraced by managers, the situation has been close to the opposite for academics. This is explained by the emergence of a managerial culture that has taken a lead position in institutional quality assurance, while academics have lost much of their independence from outside regulations. In practical terms, knowledge is now organized in a wide range of discrete competencies including level descriptors aimed at harmonizing all higher education. However, learning is not something that can be fully predicted, and stakeholders are still likely to enjoy that freedom. Qualifications frameworks can at best indicate the nature of desired learning, but is in itself incapable of providing the detailed nuances of learning that can only be experienced in real life contexts.

In the author’s view, a ‘successful’ learning outcome is one that gives energy rather than deprives of energy, and serves as a source of inspiration for teachers as well as for learners. This requires academics to regain authority as teachers and strengthen their ownership to ‘quality’ in the disciplines. This may imply abandoning the strict adherence to descriptors, and rather capture the uniqueness of each category as a source of inspiration in combination with own experience and tacit knowledge.

### REFERENCES


