Management, Organizations and Institutional Development

CHAPTER 13

A Tale of Diverse Qualities – Reflections on Performance Measuring in Higher Education

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Abstract

The international reforms in higher education under the umbrella of the Bologna process stress evaluation of students' learning outcomes. The initiatives are based on the instrumental idea to create more efficient organizations, which conflict with traditional academic values. The issues discussed here are how these quality assessment systems are developed into accounts on a national level, and how these systems can be understood as performance measurement systems. The empirical data is gathered from the construction of the Norwegian Quality Assessment System and the Swedish development of the External Program Quality Model. Findings indicate that development of performance measures in higher education should be based on discursive processes to be legitimate in the sector. Furthermore, existing measures are hardly conducive to outcome evaluation, and their validity for decision makers is questioned.

Introduction

Management accounting has been defined as a discipline with the aim to "... create, preserve and increase value so as to deliver that value to the stakeholders of profit and not for profit organisations both public and private" (CIMA 2000, 3). The measuring of organizational performance is in principle a vital point in the creation of relevant information for decision makers in order to increase value, and facilitation of relevant information is a major aim within management accounting. However, immense design challenges arise for management accountants. First, performance measures are of course unlikely to capture the complexity of an organization's activity. Second, outputs from performance measurement systems are often characterized by their ability to mislead and confuse decision makers and to motivate towards unintended and dysfunctional actions by their effects on actors.

These and several other dilemmas arise when higher education is now becoming the object of external assessment and audit of both teaching and research performance (Bogt and Scapens 2012, Broadbent 2007, Modell 2005). These are the dilemmas which motivate the question for discussion here: How are quality assessment systems developed into accounts on a national level, and how can these systems be understood as performance measurement systems? The empirical data is gathered from the construction of the Norwegian Quality Assessment System and the Swedish development of the External Program Quality Model. The aim of this chapter is to address the challenges mentioned above in order to enhance our understanding of how performance measures and management are related to services in the public sector in general and especially so in higher education. Increased knowledge about the making and relevance of performance measures in this field is vital, as public sector services are often complex, thereby hampering the evaluation of outcomes. Furthermore, the causal relations between input and output/outcome are mostly ambiguous (Malmi and Brown 2008).

The European Higher Education Area

The relevance of the theme in this chapter is strongly reflected in the ongoing initiative on the European and international scales called the "The qualification frameworks" (Bologna Working Group 2005) and the accompanying emphasis on students' learning outcomes (OECD 2009) in higher education organizations. The initiatives are based on the instrumental idea of enhancing transparency, developing quality and creating more efficient organizations. This standardization of reports across countries and the new evaluation strategies imposed into these academic institutions build on managerial logics from the business world. These reform initiatives create dilemmas, as academic institutions have traditionally been governed by professional academic logics, known as the "Humboltian idea" where education is wholly considered as a discursive process between teachers and students.

The move towards a European Higher Education Area is generally referred to as the Bologna process. Whatever the name, we are talking about the most important reform process that has emerged in European higher education for decades, and it has some original and characteristic features. The Bologna process is both national and European at the same time. It is being implemented at national levels by ministries of education, higher education institutions, staff and students. Moreover, above the level of institutions, the general direction of reforms is set by government ministers and their representatives, by the representative bodies of higher education institutions under the political domain of European Union. ⁶⁹

⁶⁹ The Bologna process takes its name from a declaration signed in Bologna in 1999 by the ministers of education of twenty-nine European countries. Several bodies have been set up such as the European University Association(EUA), European Association for Quality Assurance in Higher Education, ENQA; European Consortium for Accreditation, ECA.

The Bologna Declaration (1999) implies an instrumental view of higher education institutions' performance, as noted in a statement (among other documents) issued by the European Consortium for Accreditation (ECA) on the development for quality measurement in the Bologna process:

Data collection and development of performance indicators should strictly adhere to the principles of transparency, readability and accountability of European education, thus allowing for measuring and comparing the strengths of institutions. (...) To this end compatible instruments for both external institutional assessments and internal quality assurance systems will have to be developed. (ECA 2009)

How can we understand these processes leading toward additional performance measurements? This question will be further discussed based on the theoretical perspectives described below. The rest of this chapter is organized as follows. First, the theoretical framework is briefly described, and next the higher education context is presented. Following this is a discussion of the quality assessment strategies in Sweden and Norway, which are discussed against the theoretical perspectives. The chapter ends with some theoretical and practical implications.

Theoretical reflections

These large reform processes which are briefly described above can be discussed from several theoretical perspectives. In the following parts after an introduction, the normative and the descriptive approaches are presented. These two approaches are chosen because they permit us to illuminate the differences between the instrumental (normative) initiatives expressed in the reforms (the Bologna process) and how these initiatives differ from what is actually observed and described in empirical studies. Last, this part is ended by summing up the institutional perspective of the quality assessment reforms.

The challenges of measuring outcome as performance in higher education

The attainment of learning aims has always been the goal of educational programs. As certain learning outcomes were earlier taken more or less for granted, learning outcomes are now being developed into quality indicators to measure outcome and to evaluate the success or failure of programs. These changes in the roles of measurement are driven by the international focus on managerialism (Bogt and Scapens 2012, Parker 2012, Broadbent and Guthrie 2008). The general problem is that educational outcomes as the object of assessment are an immaterial entity; an entity which, so to speak, exists only in the heads of students. Furthermore, the only way to observe this entity is through the students' ability to turn learning into practice after having finished their edu-

cational programs. This question is in fact about the value added of education, the differences in skills and knowledge between the enrolment of candidates and their completing the programs (Haakstad 2010, Harvey and Green 1993).

Since the first beginning of the formal quality assurance initiatives (Harvey and Williams 2010, Newton 2010), there has been a shift in focus from input to process – and from program evaluation to outcome evaluation. Certainly, it is learning outcomes which are the raison d'être for the existence of higher education institutions. However, there are major challenges in terms of measuring performance (de Bruijn 2007). First, the prior attempts to measure outcomes as value added developed mainly into complex concepts of educational quality and quality assurance (QA), where QA methods are criticized for being reductionist, superficial and bureaucratic (Harvey and Williams 2010). On the other hand, learning outcome may also be reduced to a small number of indicators. In an instrumental view of performance management in higher education institutions, outcome indicators may become easily controllable management tools. This is especially true as such measures are included in international comparisons and rankings (PISA, TIMMS) and are also subject to national benchmarking.

Policy documents in this field indicate that there are international initiatives to launch measurement systems for learning outcomes in higher education provision in Europe. The OECD (AHELO) (OECD 2009) project seeks this aim. However, the methodological complexities are acknowledged. These complexities indicate competing institutional logics in the higher education sectors. First, there is a quite obvious instrumental and economic logic based on input-process/output-outcome logic, and there is a professional logic which is fundamentally intertwined with norms and values that can hardly be translated into numbers.

Normative approaches

According to a normative view, the external quality assessment measures of learning outcomes should follow the defined standards and criteria (ENQA 2009). These criteria should then be adjusted to national contexts and examined as to whether they measure according to the input-process-outcome paradigm. Further, they must correspond with the specifications in the international qualification framework. More precisely, the measures are supposed to guide quality assurance initiatives toward the assessment of how the students' attainment of learning goals is planned, facilitated, assessed and evaluated (followed up). In other words, the measures are designed to give decision makers

[&]quot;There is currently considerable interest within institutional, political and scientific circles for measures of higher education learning outcomes, but uncertainties and doubts of some actors exist as to whether it is scientifically and operationally feasible to measuring outcomes across HEIs of very different types, and in countries with different cultures and languages..." (OECD 2009).

the tools to evaluate whether the specified generic skills are tested in the programs, with the focus on outcome rather than process evaluation.

These views are in line with the normative/instrumental view of management accounting and control (Anthony and Young 2003), where the ideal steering circle assumes a coupling between strategies, budgets, action and evaluation and back to strategies. However, the "process of producing education" is not instrumental. Although we might develop valid measures of students' learning outcomes which are beyond the information from formal grades, questions arise as to how learning outcomes relate to the criteria in the qualification frameworks. Do the criteria really tell us anything about the students' actual achievement of goals, and how are these goals coupled to strategies? The answer to the first question is, unfortunately, no!, they do not. Later in this chapter we will show that performance indicators are mostly input or process evaluation, and to a minor extent outcome measures.

Challenges in measuring outcomes

The quality assessments aim at being direct, but they will have to remain based to a large extent on indirect approaches based on certain indications and assumptions, such as those characterizing the Norwegian system. The direct methods must be based either on the formal grades given to the students during the evaluation processes or on comprehensive procedures of repeated assessments, such as the Swedish system. Both ways imply serious problems, and such measures might not enhance a more comprehensive understanding of the quality of outcome. Further, the direct measures include input factors which reduce the validity of the targeted outcome quality.

As indirect measures will have to be developed, the relationship between input and outcome is central to the discussions, especially as a causal relation can be quite ambiguous and even non-existent. This applies to the assessment tools and models in the programs. These are specified in the course plans, and they have been mostly used only for guiding the formal processes in the students' performance evaluation. We can expect that the course plans will be under closer scrutiny in the future, since the learning processes are designed here.

Here the professors and teachers will have to take a more active role than earlier, when the quality assessments solely focused on process indicators. In principle, the judgments by the professionals might be the only way to relate input and outcome, and consequently, quality assessment and assurance in this sector will in the future build on discursive processes. The development of these measures should then be based on logics other than the instrumental view, and thus, the quality of the measures is highly dependent on the discursive processes which have to take place in developing these measures. Still, the relationship between input and outcome remains ambiguous.

Descriptive approaches to the role of quality assessment

Knowledge as to how the course design materializes in the form of learning and competences remains the domain of the professionals. If such knowledge is to be transformed into metrics, outcome measures have to be both detailed and comprehensive. Decisions made within the development of these measures are major decisions which will affect higher levels of strategic decision making in this field, such as the financing of institutions, reputation and consequently, input quality. Accordingly, the construction of outcome measures is linked with the terms accounting and accountability, as concepts explicitly used in the European Consortium for Accreditation (ECA 2009).

In general, accounting provides accounts of a series of events mainly recorded in financial terms for stewardship, decision-making and control. In the broad area, the use of accounting information is much more diverse, because accounting information is also used in a political sphere. From a management control viewpoint, the design and use of performance indicators in higher education can also be studied as an issue of producing and understanding accounting information.

Broadbent (2007) noted that accounting in our context is a social construction that reflects certain taken for granted assumptions. Constructions appear as accounts and visualized as assessments and audits of teaching performance and published as rankings and league tables. The motives behind the qualification frameworks in the Bologna process were to enhance transparency, and as such the process has resulted in increased pressure to adopt performance measurements in the managing of education institutions. However, performance measures are only one aspect of management, and Malmi and Brown (2008), among others, argue that the context and culture of an organization are important in understanding the operation of performance management systems.

The nature of higher academic institutions is complex, and the management of such institutions is correspondingly complicated (Bogt and Scapens 2012, Broadbent 2007). Researchers also assert that the claim (from ministries) that the new performance measurement systems increase transparency and objectivity are really debatable (Bogt and Scapens 2012, 487). Furthermore, researchers point at the fact that the management of these institutions takes place between the traditional and academic cultures of these institutions and the governments' funding mechanisms and their demands for particular outcomes based on instrumental rationalities (like the Bologna process prescriptions).

Institutional theory and performance measures

Institutional theories (in a broad sense) are also within the descriptive theoretical approaches, and these theories may provide alternative explanations for standardization of higher education as the one noted in the Bologna

process. Here we might find arguments claiming that education institutions are continuously striving for higher legitimate standing in modern society. That is to say, the accreditation and quality assessment efforts do not seek merely to make for more efficient, transparent and high-quality institutions, but aim instead at maintaining their legitimate status as universities. In order to accomplish this end, universities are supposed to adopt governance structures which are similar to the private business sectors. The early works of Meyer and Rowan (1977) explicitly argue that accreditation depends upon structural conformity with a set of professionally specified and legally mandated rules:

[Schools] hire teachers who are properly credentialed. Persons lacking such certification will not be employed regardless of their knowledge or instructional abilities. These teachers are assigned to carefully defined students who are classified in grades that are given standardized meanings throughout the country. The teachers apply to the students a curriculum... Instruction takes place in buildings and classrooms whose characteristics and contents must conform to state laws. (Meyer and Rowan, 1977)

"Institutionalization" in this perspective refers to the ways in which procedures, obligations and social processes come to be "taken for granted", ways that involve legal status in regard to social thought and action. In this respect, organizations are defined as partly "institutionalized formal structures". Further, formal structures are not simply the organization's physical structures, but include also the many positions, policies, programs and procedures of modern organizations that are enforced by public opinion, by the views of important constituencies, by knowledge legitimated through the educational system, by social prestige, by laws, all of which are so-called formal myths (Meyer and Rowan 1992).

Some researchers have also pointed out that standardization such as quality assessment systems travel like ideas (see, among others, Røvik 2007) and that the implementation of these trends and reforms can be understood as institutions searching for identity in modern society.

Quality assessment strategies in Sweden and Norway

To contextualize the development of quality assessment in higher education institutions, a fieldwork has been done by exploring how reforms are introduced in Sweden and Norway. These two countries are chosen because they have many similar contextual characteristics, such as public ownership of higher education institutions, common academic traditions and evaluation systems for student assessment. However, Sweden is larger, has many more institutions and a much older academic tradition than Norway. On the other hand, despite the similarities, these two countries have chosen different adjustments to the Bologna standardization processes. Furthermore, the author knows these

two education systems very well, as I have been a part of evaluation projects in both countries. The discussion of the empirical work is guided by the theoretical frameworks briefly described above.

Introduction

In Sweden, the author was able to follow the process in detail during 2010 and 2012 as a member of the Scandinavian assessment group that developed the evaluation of business and administrative education institutions. The work was done on behalf of the Swedish Agency for Higher Education. The Norwegian case is partly based on the author's work as a former member of the board of the Norwegian National Agency for Higher Education (NOKUT), and documents have been studied in order to account for the system in use.

The research methods briefly described here can be denoted as partly action research (Tengblad, Solli and Czarniawska 2005), because the author has actively participated in some of the processes being analyzed. In this way, the author as researcher is a participant when writing a text about a context with low analyzability and with which the author is very familiar (Pettersen and Mellemvik 2005: 58).

The Swedish and Norwegian contexts

The Swedish National Agency for Higher Education introduced, in 2010, a new model for the next cycle of external quality assurance (2011–2014) (Högskoleverket 2009, 2010). This model is a program type with three basic indicators:

- Intended learning outcomes
 - The "constructive alignment" of input factors with the definition of intended learning outcomes
 - The program's labor market relevance
 - The academic and didactic competence profile of teachers.
- Learning outcome assessing achieved learning outcome by means of repeat assessments of specimens of student work
- Student experience and student influence including two surveys; a student survey on students' perceptions of program quality and an alumni survey to measure the program's occupational relevance and employability of the candidates.

The Ministry of Education in Sweden stated that the intention was to make a composition of the three basic indicators to construct one institutional ranking from very high quality to high quality and low quality standards. The

⁷¹ The author, in 2010, was appointed by the Swedish Agency for Higher Education to be a member of the evaluation group of academics and other stakeholders to develop a system for student learning outcomes in higher business education in Sweden during 2011–2012.

composed measure was planned to have consequences for the income side in the budgets for the institutions, as high and low quality would imply higher or lower funding based on the metrics to be decided.

The students' learning outcomes were to be assessed as achieved learning outcomes by means of repeat assessments of specimens of students' work. Approximately 20 scholars from the Scandinavian countries were appointed to a committee to develop the evaluation measures of the national sample of business programs. Approximately 900 master's theses from all the higher education institutions were evaluated against the recommended indicators by including altogether 35 academics. Then the average "grades" were aggregated for each institution, which were then published in league tables; please see Figure 13.1 below.

This figure places the average scores for each institution, according to the dimension high quality – poor/low quality. Those institutions ranked with the grade "poor quality" received a kind of "early warning" from the ministry in order to enhance the study programs' quality.

A discursive process was developed in order to translate the performance of students in writing theses into some learning outcome measures. These learning outcomes were visualized as three distinct measures expressed between 3 (high quality), 2 (good quality) and I (poor quality). The discursive process ran over a period of eight days of meetings with an average of 15 persons participating per day. Furthermore, all these persons, along with a national group of 20 academics, read 20–25 theses each. Each member of the evaluation committee also participated in two on-site visits at institutions, each visit lasting one day. This process can be seen as an interactive development of the meeting-place between the academic/professional logic and the managerial/instrumental logic. The translation from discussions to metrics is seen as aggregated scores in the league tables seen in Figure 13.1.

The Norwegian model is quite different from the Swedish, as it is of the program type. It focuses on the operational approach to the system of quality assurance. The focus on learning outcomes was introduced beginning in 2012 at the institutional and program levels, meaning that the Norwegian model has up until now been process oriented. However, learning outcomes are not (yet) to be measured in quantitative terms as in the Swedish case.

All higher education institutions in Norway were obliged as of 2002 to have an approved and detailed specified system of institutional quality assurance. The *Norwegian National Agency for Higher Education (NOKUT)* has the authority (from the Ministry of Education) to approve or disapprove the institutions' systems for quality assurance. Although the quality assurance system is detailed, the assessments of these systems need to be built on professional judgements. This judgement is made by committees with external members possessing specialized competence from academic positions, from the labour market and from students with relevant background; please see table below.

| | Proportion % Poor quality | | | | |
|-------------|---------------------------|--------|--------|--------|--|
| Institution | Meas1 | Meas 2 | Meas 4 | Meas 6 | |
| BTH | 38 | 25 | 25 | 38 | |
| GU | 27 | 27 | 14 | 23 | |
| HHS | 5 | 0 | 5 | 5 | |
| HB | 42 | 68 | 32 | 58 | |
| HDA | 56 | 44 | 17 | 44 | |
| HG | 14 | 14 | 0 | 14 | |
| HIG | 45 | 55 | 35 | 40 | |
| НН | 30 | 25 | 15 | 30 | |
| НЈ | 0 | 6 | 0 | 12 | |
| HKr | 18 | 24 | 6 | 12 | |
| HS | 29 | 21 | 7 | 21 | |
| HV | 35 | 47 | 24 | 35 | |
| KAU | 52 | 33 | 19 | 43 | |
| LIU | 13 | 13 | 0 | 13 | |
| LNU | 10 | 19 | 10 | 14 | |
| LTU | 10 | 40 | 10 | 40 | |
| LU | 38 | 38 | 29 | 33 | |
| MAH | 17 | 17 | 0 | 33 | |
| MIU | 53 | 53 | 27 | 53 | |
| MDH | 24 | 24 | 24 | 24 | |
| SU | 29 | 17 | 17 | 13 | |
| SLU | 55 | 45 | 18 | 36 | |
| SH | 38 | 38 | 24 | 29 | |
| UMU | 24 | 18 | 6 | 12 | |
| UU | 17 | 17 | 13 | 17 | |
| ÖU | 35 | 24 | 6 | 29 | |

Figure 13.1 Aggregated scores in % for each institution, bachelor studies, Sweden (score 3 = very good quality, score 2 = good quality, score 1= low/poor quality)

| Sa | | Proportion % high quality | | | |
|----|-------------|---------------------------|--------|--------|--------|
| | Institution | Meas 1 | Meas 2 | Meas 4 | Meas 6 |
| | BTH | 25 | 13 | 25 | 13 |
| | GU | 14 | 14 | 5 | 5 |
| | HHS | 36 | 32 | 23 | 32 |
| | НВ | 0 | 0 | 0 | 0 |
| | HDA | 0 | 0 | 0 | 0 |
| | HG | 29 | 38 | 14 | 29 |
| | HIG | 0 | 0 | 0 | 0 |
| | НН | 20 | 35 | 25 | 10 |
| | НЈ | 24 | 29 | 29 | 12 |
| | HKr | 35 | 41 | 35 | 35 |
| | HS | 14 | 29 | 7 | 29 |
| | HV | 0 | 12 | 6 | 6 |
| | KAU | 5 | 10 | 0 | 5 |
| | LIU | 31 | 19 | 31 | 13 |
| | LNU | 38 | 33 | 19 | 19 |
| | LTU | 0 | 0 | 0 | 0 |
| | LU | 24 | 14 | 5 | 0 |
| | MAH | 17 | 0 | 0 | 0 |
| | MIU | 7 | 7 | 7 | 7 |
| | MDH | 19 | 5 | 10 | 10 |
| | SU | 38 | 21 | 21 | 21 |
| | SLU | 9 | 0 | 9 | 9 |
| | SH | 14 | 24 | 19 | 14 |
| | UMU | 29 | 18 | 18 | 18 |
| | UU | 13 | 9 | 13 | 0 |
| | ÖU | 18 | 12 | 12 | 6 |

| Table 13.1 Number of academic members appointed into evaluation project as part of | of |
|---|----|
| the quality assessments made by the Norwegian National Agency for Higher Education | on |
| (NOKUT) 2009–2012 | |

| Year | Number of members appointed into evaluation committees (approximately) | Number of Accepted accreditations | Number of system accreditations |
|---------|--|---|---------------------------------------|
| earlier | | 154 | 64 |
| 2009 | 61 | 22 | 15 |
| 2010 | 82 | 18 | 16 |
| 2011 | 56 | 30 | 13 |
| 2012 | 43 | _ | _ |
| Total | 240–250 (approximately) | | |

During 2009–2012 approximately 240–250 members participated in such committees, which indicate that the translation from system to practice is discursive and heavily based on professional judgements. These committees act as meeting points between the different institutional logics within this sector, as academics meet with administrative staff, students and stakeholders. Although the quality assurance systems have been specified in detail, they must be operated by professional academics. Consequently, the administrative control logic is mixed with the professional logic, and the documents being produced can be seen as meeting places, as noted also in relation to the Swedish system.

Discussion and implications

To address the question of how and why quality assessment systems are developed into accounts on national levels and how these systems appear as performance measurements, a theoretical framework was presented and the fieldwork was referred to. Here the empirical findings are analyzed against the theoretical perspectives, and we point to the phenomena of path dependency and discursive processes. Last, some agendas for future studies are suggested.

Understanding the processes by theorization

In Sweden the Swedish National Agency for Higher Education introduced a model for external quality assurance which is a program type. We have described here how the students' learning outcomes were assessed as achieved learning outcomes by means of repeat assessments of specimens of students' work. It was shown that a comprehensive discursive process was established to develop the evaluation measures, and approximately 900 master's theses from all the higher education institutions within business and management studies were evaluated against the recommended indicators (26 institutions).

This process established outcome measures that were legitimized by joining the roles of professional teachers with their function as evaluators of learning outcomes. On the other hand, following an instrumental perspective on management control, these standards developed as league tables (Figure 13.1) and can be seen as input into a control circle, where payment systems are partly based on such outcome measures. This is the intention that was expressed by the Swedish government at the time.

Contrary to the instrumental perspective, descriptive approaches view the learning outcome measures as (more or less) socially constructed (Broadbent 2007), and they are therefore not measures which can be considered as "true" and as metrics which unquestionably can be used as parts of payment systems. Also according to institutional theories, such standards can be understood as "ideas" which legitimize the institutions as "modern" organizations trying to establishing new identities.

In the Norwegian process, the focus has been on indirect quality measures such as the quality assurance system. As we have seen, these evaluation processes have been heavily based on professional judgements and academics participating in many evaluation committees, which for years have issued approvals and disapprovals of quality assurance systems on the basis of which programs and institutions have been accredited. By this translation process from system to practice, these committees act as meeting points for the different stakeholders within this sector. The performance measures were accordingly legitimized through the inclusion of academics in the evaluation based on managerial control logics.

Different pathways

Sweden and Norway have chosen different pathways to the assessment of quality in higher education institutions. Both countries follow the Bologna (1999) prescriptions, although differently at the respective national levels. Nevertheless, both cases indicate that the translation from the Bologna standards to practice is heavily based on professional judgements and entail either a process orientation (Norway) or an outcome based-approach (Sweden). These different pathways can be understood from the viewpoint of path dependency found in institutional theory (Modell et al. 2007).

Discursive processes

If professional knowledge is to be transformed into metrics, performance measures have to be both detailed and comprehensive, and they should be rooted in the professional norms and values, as shown in this study. Otherwise, the validity of measures will be questioned, their legitimate standing will be reduced and consequently, academics in the field might become less committed to performance measurements. Ill-developed measures might motivate goal incongruence, opportunistic behavior and reduced transparency.

In many countries the government funding of higher education institutions has become partly contingent on their performance in teaching and research (Bogt and Scapens 2012). This is the case for both Sweden and Norway, as both countries have introduced different kinds of per-case payment systems in the higher education sector. Consequently, decisions on performance measures under these circumstances might have direct financial repercussions, and funding pressure will become one of the effects of performance management within this sector.

Implications and future studies

This chapter has discussed the incorporation of the international qualification framework (Bologna Working Group 2005) in two countries. Several aspects remain to be discussed more thoroughly.

 How can we explain that the same set of indicators is being incorporated differently in countries?

The reforms urge that students' learning outcomes must be the major measures of quality.

- How can the relationships between input/process and output/outcome be studied?
- If outcome is ambiguously defined and measured, what might be the consequences at the institutional and individual levels for professionals and students?

This chapter has not discussed the connection between funding systems and the development of performance measurement in higher education.

- How are performance measures translated into funding of higher education institutions?
- How can the relation between the funding system at institutional level and the performance of teachers and students be studied?

According to a performance management view, a relevant concern is also why decision makers need information on quality – for purposes of control or for quality improvement?

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