

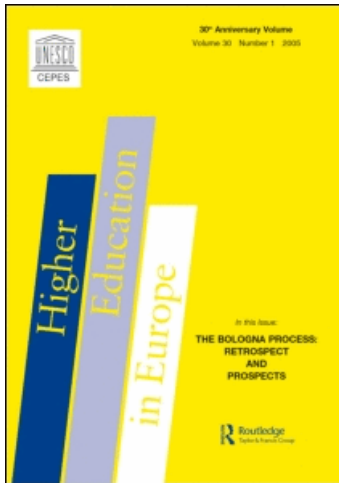
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Rankings and Quality Assurance in Higher Education

GERO FEDERKEIL

Rankings have become a widespread phenomenon in an increasingly competitive world of higher education. They differ with regard to their aims, objectives, target groups, and with regard to their relationship to quality and quality assessment. Generally, rankings are an external assessment of the performance of higher education institutions; they enable transparency about systems of higher education. This paper discusses the relationship of rankings and quality assurance on an institutional and a system level. A clear conception of the differences between rankings and other forms of assessment of higher education institutions helps to understand the usefulness as well as the limitations of rankings and helps to prevent false or unrealistic expectations of rankings.

Introduction

Quality assessment has become one of the most prominent issues in discussions about higher education, both within the academic world and in higher education policy. While such issues have gained particular attention during recent years due to some structural changes in higher education, we have to keep in mind that higher education and science have an intrinsic relation to quality and excellence. “Evaluation, assessment and assurance of academic quality is intrinsic to higher education” (Brown, 2004, p. x). The search for scientific knowledge and discoveries is a striving for excellence. Various forms of evaluation and peer review have a long tradition in science and higher education.

At the same time, there are some developments and changes in the world of higher education which have put even more stress on issues of quality in a system that had by the 1980s been described as an “evaluative state” (Neave, 1998) or part of an “audit society”. Enumerating some factors leading to the current context is useful:

- First, competition among universities has significantly increased, both on a national and an international scale. Universities are competing for students, staff, funding and last but not least, reputation. Global rankings, such as that of ‘World Class Universities’ undertaken by the Shanghai Jiaotong University, or *The Times Higher Education Supplement* World Rankings have made their contribution to the world-wide comparison of universities.
- Second, the expansion of higher education and the diversification of universities has created an incredibly rich and varied array of courses, programmes, and diplomas, again both on a national and an international scale. ‘Consumers’ are therefore more dependent on instruments that can create transparency for higher education institutions and programmes. Germany for example, has around 10,000 undergraduate degree programs in higher education institutions.
- Third, there is an international trend towards higher autonomy for individual higher education institutions. A higher degree of freedom and self-governance has created a

new need for accountability towards administration and the public in general. This is particularly an issue in European higher education systems, which are largely shaped by public universities financed via taxes.

- Fourth, from a European perspective, the strategy of thirty-three European countries to create a ‘European higher education area’ under the so-called Bologna Process aiming to implement joint degree structures in the European higher education systems, is posing major challenges and changes for many European higher education systems. The mobility of students and teachers, the recognition of degrees, and the quality assurance of study programmes are to be improved. Furthermore, a structure based on two main cycles (undergraduate/graduate) and a system of credits such as European Credit Transfer System (ECTS) is to be established.

With regard to quality, European ministers of higher education have accepted “common standards and guidelines for quality assurance in the European Higher Education Area as proposed by the European Network for Quality Assurance (ENQA) in the ‘Bergen Declaration’”. They have committed themselves “to introducing the proposed model for peer review of quality assurance agencies on a national basis, while respecting the commonly accepted guidelines and criteria”. And they “welcome the principle of a European register of quality assurance agencies based on national review” (Bergen Declaration, 2005, p. 3). Yet the very notion of quality assurance and the instruments as well as the dynamics of quality assurance still vary considerably between European higher education systems.

These changes relate to the basic trends in “higher education quality talk” present in various regions throughout the world. This paper begins by providing an overview of different instruments of quality assessment and then will elaborate on rankings and their relationship to quality and quality assessment – both from a European perspective.

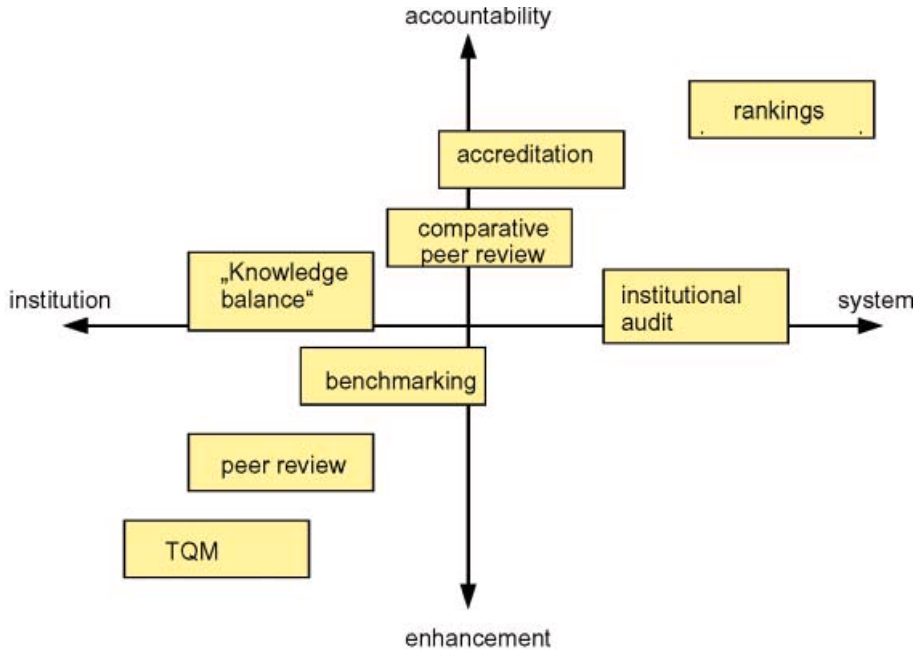
Instruments of Quality Assessment

Despite the recent activities of the European Commission and various stakeholders (for example, ENQA), no coherent European system of quality assurance in higher education yet exists. Rather, one finds a variety of national systems with some tendencies for convergence. As a consequence, Europe currently uses a variety of different instruments of quality assurance with different impacts in different countries. A study by the ENQA identified eight main types of evaluation across ENQA member states (ENQA, 2003).

Analytically, the existing instruments of quality assurance can be ordered along two lines: One is the level of reference (institution vs. system); the other refers to the main aims of the instruments and could draw on the distinction between *enhancement* and *accountability*. Whereas in reality many of these instruments can be used for different purposes and in different ways, there are some typical or empirically predominant types of implementation that allow a positioning of the instruments in this analytical field (Figure 1).

A set of instruments can unambiguously be placed into the cell representing ‘institutional enhancement’. Among these are the various approaches of institutional quality *management* such as, for instance, Total Quality Management, models advanced by the European Foundation for Quality Management (EFQM) and

FIGURE 1. INSTRUMENTS OF QUALITY ASSURANCE IN HIGHER EDUCATION



Source: CHE ranking data.

approaches adopted by DIN ISO 9000f. In Europe, approaches imported from business are still not very common in higher education but interest in them has grown. A recent survey by the German Rectors' Conference showed that less than ten percent of German universities are applying such quality management instruments. Another instrument of institutional quality assurance, benchmarking, also originated in business/industry. Benchmarking concerns comparing processes and outputs with other comparable institutions and about learning from good or best practice. A number of cooperative benchmarking initiatives exist among higher education institutions. Such networks involve the exchange of data and information that allow for detailed insights into the processes and working of the institutions involved. Even though they may be competitors, their work and their results in most cases are kept confidential; i.e. normally results are not published (or only in an anonymous form, as in the case of the benchmarking exercises carried out by the European Centre for Strategic Management of Universities (ESMU)).

In many European countries, systems of *peer review* are implemented. Peer review has a long tradition in higher education and science, e.g. the peer review processes for scientific journals and reviews of project proposals. Peer review can be used either by single institutions to provide an external view of their own structures, processes, and performance, or it can be put into a comparative perspective and focused more on issues of accountability. The British systems of Teaching Quality Assurance and Research Assessment Exercise are based on peer review. In Germany peer review is among the most frequent instruments of quality assessment including several regional systems of comparative peer reviews of teaching and learning (only one focused on research). They are used politically to structure the regional higher education systems

and hence their main purpose is not enhancement of individual programs and departments.

In some European countries higher education systems of *accreditation* have been introduced in the recent past (e.g. Germany, Austria), in most cases in the context of the Bologna Process and the introduction of new degree systems. According to Harvey (2004, p. 5), Europe is “rushing precipitously into accreditation and ... the approach taken is based on naïve views of what accreditation is and what can be achieved”. In some countries institutional accreditation has been introduced, normally by national bodies (governmental or public/private agencies). One example is the accreditation of private higher education institutions in Germany and Austria. Other systems focus on programme accreditation. As in the US, programme accreditation in Europe in most cases is linked to providing a licence to practice but is separated from licensing. Many systems are designed to provide academic rather than professional accreditation. This is true for the accreditation systems in Eastern European countries (e.g. Hungary, Czech Republic) but also for programme accreditation of the new Bologna programmes in Germany. However, accreditation is still “more about minimum standards than about quality” (Harvey, 2004, p. 7).

Last but not least, *rankings* and league tables are an instrument to generate transparency in what one might be tempted to call the ‘university jungle’. This means rankings follow a market perspective. Rankings are a way of compiling information and assessment of universities, programmes, and research as well as teaching activities in order to provide orientation to specific target groups or market actors – be it school-leavers who want to go to university, students who want to change their subject or their university, members of the department or, last but not least, the university management who want to assess their strengths and weaknesses in order to stay competitive. By offering transparency about higher education systems, rankings contribute to quality assurance on a systems level – but only in an indirect way by stimulating competition. Comparisons among institutions might stimulate those who not fair so well to become better and thus the whole system might improve – if the indicators set the right incentives! Clearly, rankings are not intended as an instrument of *internal* quality assurance within institutions; they provide an external assessment of institutions. This points to the differences between the concept of evaluation (as pointed out above) and rankings. Whereas evaluations normally include only a small number of institutions, rankings strive to encompass a whole system – however, this is defined (e.g. a national system of higher education or 500 world-class universities). While rankings are aiming towards a broad inclusion of institutions, evaluations normally are focused more on in-depth analysis. The most important difference between rankings and evaluations is that rankings as a system of quantitative indicators may completely neglect causes and reasons for bad results of institutions, while the identification of causes of weaknesses is the very task of evaluation. Yet rankings offer a variety of data on individual institutions that can be used for internal analysis in terms of comparison or some form of benchmarking. While ranking data normally cannot deliver causal analysis, they can be a starting point for a more detailed analysis of the strengths and weaknesses of an individual institution. The extent to which rankings can be used for institutional quality assurance will be discussed later. In doing this, we will define some requirements for rankings to be useful for internal quality assurance.

If we examine all these different instruments of quality assessment/assurance and their particular implementation in different higher education systems, one main feature of the discussion about quality assurance in Europe is a mixture of analytical levels. Most actors and writers in the quality business do not distinguish between quality assurance on the *system* level, i.e. the level of the whole higher education system (national or international) and the *institutional* level, i.e. the level of the individual higher education institution. They only speak of quality assurance and quality assurance instruments as such (e.g. ENQA in its 2003 study). In consequence of this analytical flaw, there is no concept of which actors should be involved on which level. In particular, this lack of differentiation does not allow distinguishing between the responsibilities for quality assurance on the institutional and the system level. As a consequence external responsibilities are formulated with regard to institutional quality assurance that are opposed to the notion of institutional autonomy. An example is accreditation in Germany, which was introduced as a tool to assure quality in the context of the introduction of the Bologna scheme in Germany. Now it is widely seen – in particular by the accreditation agencies – as a tool for institutional quality assurance. Therefore, accreditation goes beyond the assurance of minimal standards, which was the original aim, and formulates detailed recommendations on the organisation of institutions and programmes.

Rankings

In this section, some general aspects of the relation between ranking and quality will be discussed. These are then illustrated with regard to both national and international rankings. The two influential international rankings are the ranking of World Class Universities by the Shanghai Jiaotong University and the World Rankings compiled by *The Times Higher Education Supplement*. In the course of the last two decades, higher education rankings have emerged in many countries all over the world. Despite their now long tradition (the first ranking by *US News & World Report* was published in 1983), rankings are still very controversial, in particular within higher education institutions: “Wherever rankings have appeared, they have been met with a mixture of public enthusiasm and institutional unease” (Usher and Savino, 2006, p. 3). Rankings were established to create transparency about the higher education system in a competitive system for market actors – prospective students, their parents, employers. Rankings are simultaneously the medium and the outcome of competition. Rankings can be conceived as an imperative of the knowledge society (Sadlak and Liu, 2007, p. 77). This means they are reproducing the competitive structures they are trying to measure. As rankings are constructing – with high public visibility – such hierarchies of higher education institutions in terms of better and worse and thus heavily influence the market situation of single institutions (e.g. with regard to the number of applications, cf. Clarke, 2007), it is no wonder that they are followed by those very institutions carefully.

There is no single concept or model of ranking/league tables. Rankings vary in their aims and target groups as well as in terms of what they measure, how they measure it and how they implicitly define quality (cf. the comparative analysis of different ranking systems by Dill and Soo, 2005; Usher and Savino, 2007a). And last but not least, as universities differ in their performance, rankings differ in their quality, too. Most rankings do not have an explicit concept of quality, although implicit concepts are

implied in their specific indicators and measures. A first distinction can be made according to the aspects and ‘functions’ to which the rankings refer. Some focus exclusively on indicators of teaching and learning, while others also include measurements of research activity. Generally, as Dill and Soo (2005, p. 499) observe, “input measures have a prominent role” in all five national rankings they analysed, whereas “process and output measures are much more diverse and tend to be less influential”. Their analysis of the indicators and the weights attributed to them suggests that “one of the leading determinants of a good university is the quality of its incoming students” (p. 499). Other factors are staff qualifications and the ability to attract research grants. According to Dill and Soo (2005, p. 503), there is “less consensus on relevant measures of output”. The primary output measures in many rankings are graduation rates and – if available – graduate employment rates.

International Rankings

Among the rankings attracting most public attention are two international rankings published since 2003: *World Class Universities* produced by the Shanghai Jiaotong University and *The Times Higher Education Supplement World Rankings* published by the British higher education journal. The fact that both rankings – despite being widely criticized – have drawn attention throughout the world is a sign of the growing worldwide competition in higher education. Both rankings follow a similar approach despite applying different indicators. Primarily, both are rankings of whole institutions, although they now offer some additional differentiation by fields and both follow the league table approach, i.e. they – as in soccer – calculate individual rank positions. This approach suggests that number five is actually better than number eight or ten.

Both rankings have a clear focus on research – even stronger in the Shanghai ranking. In the calculation of the overall score, the THES ranking relies heavily on reputation (among academics and employers), which counts for fifty percent of the total score (Federkeil, 2008). The THES, in addition, offers some indicators of the internationalisation of institutions with regard to students and staff and – with a weight of twenty percent – student-staff ratios. The Shanghai ranking exclusively refers to research (Liu and Cheng, 2005). Sixty percent of the total score depends on publications and citations, thirty percent on Nobel Prize and Field Medal (mathematics) winners. Hence, implicitly this ranking suggests that ‘world class’ quality derives from research, whereas in the THES ranking quality is largely identified by reputation.

To sum up, the existing international rankings “have a restricted range of possible indicators because of the absence of available cross-national comparative data. To the extent that international ranking schemes are taking on a quality assessment role, this is a matter of no small importance and suggests that that the global higher education community needs to begin to look at how best to collect and report data on institutions so as to permit thoughtful and responsible inter-institutional comparisons” (Usher and Savino, 2006, p. 38).

Due to the selection of indicators and data bases to measure those indicators the significance of these rankings are to a great extent limited to *research in the natural and life sciences*. These fields are highly international (including English as the lingua franca) and a widely accepted data base is employed for registering the important publications as an output indicator of scientific productivity. For all other academic

fields the existing data bases are heavily biased with regard to both disciplinary and regional (language) aspects. Furthermore and in particular, no valid concept for a global ranking of teaching quality has yet been developed. Accordingly, neither global rankings can inform individual institutions about their global position in teaching and learning.

Rankings and Quality Assurance – the Example of the CHE Ranking

As with other instruments and procedures of quality assessment and evaluation, Germany was also a latecomer to rankings. For decades, the German higher education system has cultivated the myth that all universities are of equal quality. Coupled with a strong notion of university autonomy, this belief served to delay the adoption of quality assessment in higher education. While other countries could already be characterised as “evaluative states” (Neave, 1998), evaluation was still new territory in Germany. Up to the 1980s, notions of competition and quality assessment were opposed by many stakeholders within the higher education sector. However, as the period of tighter resources developed, issues of accountability, higher education competition, and quality control gained more public attention. At the same time, a growing sense of differences in quality between German universities began to emerge, which in the beginning was discussed in terms of ‘profiles’. But it was not until 1989, that the weekly magazine *Der Spiegel* first asked “Which university is the best?”. During the 1990s, a number of other magazines started rankings of higher education institutions, some for single academic subjects only. The Centre for Higher Education Development (CHE) started its ranking after a two-year period of preparation in 1998 in co-operation with the Stiftung Warentest, a national foundation for testing goods and services (Müller-Böling and Federkeil, 2007). From 1999 to 2004 the ranking was published in cooperation with the weekly magazine *Stern*. Since 2005 it has been published in cooperation with the weekly newspaper *Die Zeit*. Competencies are strictly divided between partners: the CHE is exclusively responsible for the concept and the data, whereas *Stern* takes a responsibility only for marketing and distribution.

One of the first decisions in designing a ranking is to obtain clarity about the main target group of the ranking. This decision has immense implications for the ranking design and the way of presenting results. For the CHE ranking, as for most national rankings, the main target group are prospective students who are looking for information to find a university of their choice. In a similar situation – maybe with different factors influencing their decision – are mobile students. And of course universities themselves come to be users, if not a target group of the ranking. On the one hand, universities are interested in detailed and highly sophisticated information, particularly on research. On the other hand, prospective students are confronted with some 9,000 courses in more than 300 universities – as in the German case – and at the same time are the group knowing least about higher education. Thus, there is a need to reduce the complexity of information for this target group. Rankings must find a balance between these two diverse expectations.

In order to understand the use of the CHE in institutional quality assurance, some basic methodological characteristics of the CHE ranking must be kept in mind. Three central methodological principles of the CHE ranking distinguish it from many other ranking approaches.

- i. As suggested the main target group of the rankings are school leavers seeking to become university entrants. They focus on the purported value of a specific subject or program at a university rather than that of the university as a whole. The ranking, correspondingly, does not rank whole universities, but only single subjects.
- ii. Moreover even within a single subject, the CHE ranking does not calculate an overall value out of single (weighted) indicators. Instead, it provides a multi-dimensional ranking in which each indicator is presented separately. Decisions about the relevance (or 'weights') of indicators are left to the users. The internet with its interactive features has offered new opportunities for the presentation of ranking results. In the CHE ranking users can develop personal rankings by choosing and weighting indicators according to their own needs and preferences.
- iii. As an alternative to constructing league tables the CHE-rank orders universities in three groups: the best universities are clustered into the top group; the worst into the bottom group; and the rest constitute an intermediate middle group. The grouping procedure varies according to two kinds of indicators: factual data (for example, staff–student ratios, number of publications) are grouped according to quartiles. The upper quartile and the lowest quartile are ranked respectively the top and the bottom, and the middle two quartiles are ranked intermediate. In the case of subjective indicators based on survey data, i.e. judgements by students and professors, the procedure takes into account the diversity of judgments within universities compared to the overall score. A university is ranked into the top group if the confidence interval of the mean (we use a scale from one, 'very good', to six, 'very bad', corresponding to German school marks) is completely below the overall mean of all universities (in a particular subject). At the other extreme, a university is ranked into the bottom group if its confidence interval is completely above the overall mean. Accordingly, a university is ranked into the middle group either if the mean is intermediate or if judgments are controversial, i.e. dispersion is high so that the confidence interval is large and hence neither completely below nor completely above the overall mean.

Rankings may affect students as well as universities themselves. The effects of our ranking on students that we have been able to measure in a separate study are quite considerable. According to survey data, about sixty percent of all students know rankings and use rankings as one source of information among others. Evidence suggests that there are big differences in the use of rankings according to disciplines and programmes: Generally, prospective students of law, medicine, and engineering use rankings more often than those who want to study a programme in the humanities. It can be said that achievement-oriented students in particular make use of the ranking.

At the institutional level, we observe that universities and departments take the ranking as a starting-point for the analysis of their strengths and weaknesses. In this context we offer detailed analysis of the student survey for single departments that go beyond the published indicators. After a first phase, in which poorly ranked departments often expressed fundamental criticism of the ranking, we now get considerable positive feedback even from departments that came off badly (or at least from some professors or vice-deans who are engaged in matters of teaching), telling us that they want to make use of the results for an analysis of problems and for reforms.

There are different ways in which a single university can use the ranking results and data for internal analysis of their strengths and weaknesses. First, the CHE offers a

detailed analysis of the data derived from a student survey that is an important part of the ranking. The ranking student survey asks up to 500 students per programme and university about their teaching and learning situation. In sum, the CHE ranking is based on the answers of some 150,000 students; the data set is the largest national survey among students in Germany. In the ranking some fifteen indicators are published based on the student survey, e.g. the students' assessment of the organisation of the programme, on mentoring by professors, on libraries, laboratories and IT resources. Most indicators are based on a number of single items on that issue (for libraries, for example, the availability of books, opening hours, service, access to electronic journals). As a reward for sending the questionnaires to their students, the CHE offers a detailed analysis of the survey to individual universities, so universities can see their results (mean, standard deviation) in comparison to the German average for each item included in the survey. This helps universities to understand critical assessments by their students, as it gives them a detailed insight into exactly what aspects of an indicator are assessed negatively by the students.

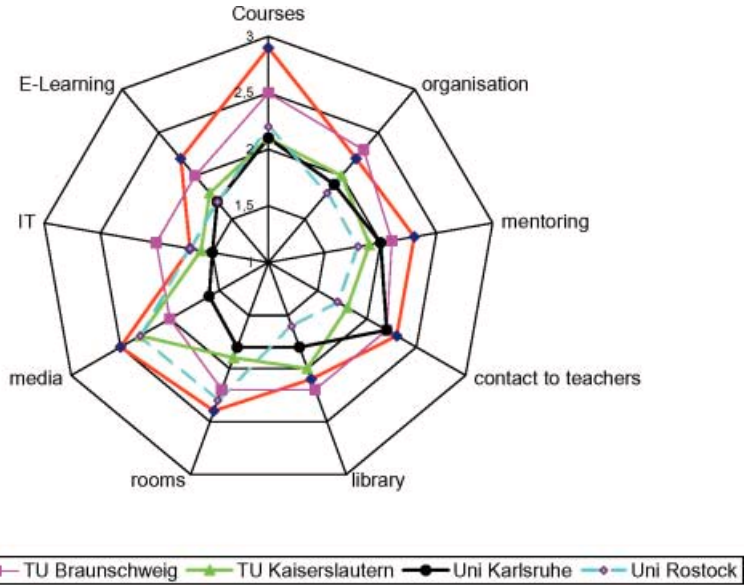
Second, the CHE has undertaken special analysis for universities who want to compare themselves with other institutions. This provides universities with a detailed analysis of their profiles. The following example is taken from an analysis we made for a German university that wanted to compare itself with a sample of competing institutions (both regionally and with regard to their profile). We see that the reference institution in biology did particularly badly with regard to courses, mentoring, and contact to teachers.

The same could be done for research in comparing different fields within a university. The indicators for this in the CHE ranking include the number of publications, the number of citations per publications, external research grants, the number of patents, and reputation among professors of the field.

And, third, as the student survey of the CHE ranking is the most comprehensive survey among students in Germany, we offer a detailed analysis to the universities. This analysis offers a detailed comparison (by field, again) of the university to the national average for each item of the student questionnaire. Whereas the published indicators in the ranking sum up different items (e.g. libraries) this analysis enables a university to analyse the different aspects of each indicator covered in the ranking. The following examples show the single items regarding the library for a psychology department (the means refer to a six-point Likert scale where one indicates 'very good' and six 'very bad'). These examples show that some services (general customer service, search for literature, interlibrary loans) at a given university are better than the national average, while the stock and availability of books/journals and the opening hours are slightly below average and are more problematic to students.

Hence universities can use the CHE ranking data for more detailed analysis in various ways. First, to compare different departments within the university, and use the published indicators as well as more detailed data (e.g. derived from the student survey). Of course, many universities have relevant data, e.g. on research performance, of their own, but the added benefit of the ranking data is that they position the departments within their respective field. This is important since two departments (e.g. chemistry and physics) with similar or identical numerical values for an indicator (e.g. number of publications) can be placed into different groups in their field since indicators differ between fields. Second, universities use the ranking data to compare themselves with other institutions. Some have done this on a regional basis, while others have identified relevant competitors with a

FIGURE 2. BENCHMARKING WITH RANKING DATA – EXAMPLE 1



Source: CHE ranking data.

similar profile. Again, the ranking data cannot replace a thorough evaluation/examination, but they can be used as a starting point to identify strengths and weaknesses or problems deserving a deeper analysis, which could then be carried out by a peer review process, for example.

Conclusions

Among the different instruments of quality assessment in higher education, rankings probably get the most public attention. Rankings are a growing phenomenon in higher education and are published in many countries throughout the world. Despite their controversial nature, they are here to stay, as they correspond to a need for transparency about higher education in an increasingly competitive system. *The*

TABLE 1. BENCHMARKING WITH RANKING DATA – EXAMPLE 2

	Grants per scientist (Euro)	Publications per scientist	Citations per publication	PhDs per professor	Patents per 10 scientists	Reputation
Biology	70.9	4.0	4.5	2.0	0.1	1.4
Chemistry	46.9	13.1	6.9	2.2	0.5	2.4
Geography	13.4	–	–	0.3	–	5.0
Computer sciences	35.3	–	–	0.4	–	1.1
Mathematics	2.3	3.9	–	0.1	–	3.3
Physics	178.4	13.0	8.0	1.3	0.1	11.4

Source: CHE ranking data.

TABLE 2. DETAILED ANALYSIS OF STUDENT SURVEY DATA – EXAMPLE 3

Library	Mean University	National mean	Standard deviation	Number of cases	Percentage 'good'/'very good'	Percentage 'bad'/'very bad'
Availability of books needed for courses	2.46	2.36	0.97	116	61	5
Stock of books and journals	2.44	2.32	0.95	114	59	4
Access to electronic journals	2.37	2.25	1.07	100	61	5
Customer service	1.81	2.37	1.03	111	79	3
Service regarding search for literature	1.65	1.73	0.8	113	89	1
Interlibrary loan	1.65	1.95	0.89	96	86	2
Online-services	1.32	1.51	0.62	109	92	0
Renewal of stock	2.78	2.57	0.88	91	38	4
Availability of work places	1.53	2.17	0.74	116	91	0
Number of copy machines	3.22	3.30	1.28	116	34	18
Opening hours	2.93	2.19	1.55	115	50	20

Source: CHE ranking data.

primary aim of rankings is to create transparency about higher education from an external and comparative perspective. Institutional enhancement is at best a secondary aspect of rankings. Nevertheless, their results are taken seriously by the institutions ranked – in terms of marketing, with regard to strategies to ascend in league tables (up to a degree this could be classified as unintended or even dysfunctional consequences of rankings) – but also in the way that universities seek to cope with weaknesses identified by rankings. It is only in this sense that rankings can contribute to institutional quality assurance. They can be a starting point for institutions to analyse their strengths and weaknesses compared to their competitors.

An analysis of existing rankings shows that the vast majority of rankings do not have an explicit and theoretically grounded concept of quality. They develop a specific set of indicators according to their aims and target groups – and often, simply with regard to the availability of data. Yet their set of indicators construct an *implicit* model of quality or excellence of higher education institutions. Comparative analysis of existing rankings (Dill and Soo, 2005; Usher and Savino, 2007a; van Dyke, 2005) suggest that there are “vast differences between university league tables ... in terms of how they implicitly define ‘Quality’” (Usher and Savino, 2007, p. 32). Nevertheless, in most rankings quality is predominantly constructed by measures of input. In particular, in an international context only a few valid, reliable, and really comparable indicators of outputs exist. They are restricted to the measurement of research activities in the field of the natural sciences. However, there is still neither a valid concept for an international or even world-wide ranking of research activities in other academic fields than sciences (e.g. engineering, social sciences, humanities, arts) nor a well developed concept for a world wide ranking of teaching and learning.

To be useful for internal quality assurance in the sense describe above, rankings must fulfil several criteria.

First, rankings must find a balance in their set of indicators and the way they present their results between their aim to inform external target groups about higher education and the need of higher education institutions to have elaborated and thorough insights into their performance.

Second, the range of data must be broad enough to allow an analysis of different aspects of performance. Rankings that merely compile publicly available data are thus of no use for institutional quality assurance.

Third, data should refer to single scientific fields, disciplines or programmes. Analysis for internal quality assurance needs to be disaggregated on different units within an institution. Even if an institution wants to know how it stands as an institution, the data must be disaggregated into fields so that the institution can see which fields are good and which are not so good in order to develop measures and incentives for improvement. In addition, the reasons individual units within a university do not rank well may differ: in some cases it may be a problem of a shortage of resources, while in other cases it might be a problem related to structures – or even people.

Fourth, data should not give an impression of preciseness that is not inherent in the data. In particular, there is a danger of misinterpreting differences in rank positions in terms of difference in quality or performance if the differences in the numerical values of the indicators are very small.

References

- BERGEN DECLARATION. “Communiqué of the Conference of European Ministers Responsible for Higher Education: The European Higher Education Area. Achieving the goals.” Available at <http://www.bologna-bergen2005.no/Docs/00Main_doc/050520_Bergen_Communique.pdf>, 2005.
- BROWN, R. *Quality Assurance in Higher Education. The UK Experience since 1992*. London: RoutledgeFalmer, 2004.
- CLARKE, M. “The Impact of Higher Education Rankings on Student Access, Choice, and Opportunity”, in, Institute for Higher Education Policy, ed. *College and University Ranking Systems: Global Perspectives and American Challenges*. Washington, 2007, pp. 35–48.
- DILL, D. and SOO, M. “Academic Quality, League Tables, and Public Policy: A Cross National Analysis of University Ranking Systems”, *Higher Education* 49 (2005): 495–533.
- EUROPEAN NETWORK FOR QUALITY ASSURANCE (ENQA). “Quality Procedures in European Higher Education”, ENQA Occasional Papers 5, Helsinki, 2003.
- FEDERKEIL, G. Reputation Indicators in Higher Education Rankings. (forthcoming book chapter), 2008.
- HARVEY, L. “The Power of Accreditation: Views of Academics”, in, DI NAUTA P., PIRJO-LIISA, O., SCHADE, A., and SCHEELE, J.P. eds. *Accreditation Models in Higher Education. Experiences and Perspectives*. ENQA Workshop Reports 3, Helsinki, 2004.
- LIU, N.C. and CHENG, Y. “The Academic Ranking of World Universities”, *Higher Education in Europe* 30 (2) (2005): 127–136.
- MÜLLER-BÖLING, D. and FEDERKEIL, G. “The CHE-Ranking of German, Swiss and Austrian Universities”, in, SADLAK, J., and LIU NIAN CAI, eds. *The World-Class University and Ranking: Aiming Beyond Status*. Bucharest, Shanghai, Cluj-Napoca: UNESCO-CEPES, Shanghai Jiao Tong University, Cluj University Press, 2007, pp. 189–204.
- NEAVE, G. “The Evaluative State Reconsidered”, *European Journal of Education* 33 (3) (September 1998): 265–284.
- SADLAK, J., and LIU, N.C. eds. *The World-Class University and Ranking: Aiming Beyond Status*. Bucharest, Shanghai, Cluj-Napoca: UNESCO-CEPES, Shanghai Jiao Tong University, Cluj University Press, 2007.

- USHER, A. and SAVINO, M. *A World of Difference. A Global Survey of University League Tables*. Virginia Beach/Toronto: Education Policy Institute, 2006.
- USHER, A., SAVINO, M. "A Global Survey of Rankings and League Tables", in, Institute for Higher Education Policy, ed. *College and University Ranking Systems: Global Perspectives and American Challenges*. Washington. 2007, pp. 23–34.
- VAN DYKE, N. "Twenty Years of University Report Cards". *Higher Education in Europe* 30 (2) (2005): 103–126.