

Liudvika Leisyte & Don F. Westerheijden

**Research Evaluation and Its
Implications for Academic Research in
the United Kingdom and the
Netherlands**

Discussion papers des
Zentrums für HochschulBildung
(vormals Zentrum für Weiterbildung)
Technische Universität Dortmund
01-2014
ISSN 1863-0294

Discussion papers des Zentrums für HochschulBildung

Technische Universität Dortmund

**Research Evaluation and Its Implications for
Academic Research in the United Kingdom
and the Netherlands**

Liudvika Leisyte & Don F. Westerheijden

Discussion paper Nr. 1-2014

Korrespondenzanschrift:

Prof. Dr. Uwe Wilkesmann

Technische Universität Dortmund

Lehrstuhl Organisationsforschung, Weiterbildungs- und Sozialmanagement

Hohe Str. 141

44139 Dortmund

Tel.: 0231 / 755 6630

Fax: 0231 / 755 6611

Email: ows.zhb@tu-dortmund.de

Die Diskussionspapiere des Zentrums für HochschulBildung der Technischen Universität Dortmund werden von dem Lehrstuhl herausgegeben. Die inhaltliche Verantwortung für die Beiträge liegt bei den Autoren und nicht bei dem Lehrstuhl.

Die Discussion papers können unter <http://www.zhb.tu-dortmund.de/wilkesmann> herunter geladen werden.

Research Evaluation and Its Implications for Academic Research in the United Kingdom and the Netherlands¹

Prof. Dr. Liudvika Leisyte
Center for Higher Education (zhb)
TU Dortmund, Dortmund, Germany

Dr. Don F. Westerheijden
Center for Higher Education Policy Studies,
University of Twente, Enschede, The Netherlands

Abstract

The logic of performativity has increasingly gained ground in policies targeting the evaluation of universities in general and research practices in particular. Using the research evaluations of British and Dutch universities from 1980 to 2009 as a case, the paper uncovers the effects of the shifts in the mix of logics of academic community and performativity on university management and research practices of academics. Despite the different institutional environments which are represented by differences in the evaluation mechanisms, similarities between stability and change in academic practices abound. In both countries the importance of institutional managers has increased, judgment of research performance has led to focusing on publishability, quantification of outputs, short-termism, ‘salami publishing’. Differences include higher stress levels and higher academic mobility in the UK. To conclude, research evaluation has higher stakes in the UK than in the Netherlands, which points to the stronger adoption of the logic of performativity in the UK system.

Keywords: research evaluation, research productivity, research management, institutional logics performance based funding

¹ We are grateful for the comments of reviewers of this paper, comments from the audience at the Council for European Studies Conference in Amsterdam in 2013 and for their helpful suggestions to improve this paper. We found the comments of Prof. Enders, Prof. Dill and Prof. Hicks on the previous versions of this paper extremely valuable.

1. Introduction

In the last decades, many policy initiatives have been taken to harmonize the different higher education and research systems of the European Union member states. Research performance has been prioritized to various degrees by national governments and new developments in research funding policies and mechanisms occurred. Increasingly, research excellence has been evaluated at the national level through national research evaluation exercises following the calls for imperatives for knowledge economies coming from the European Commission, echoed by the national governments which have increasingly rationalized their public sectors using New Public Management (NPM) inspired policy instruments (De Boer et al. 2007, Leisyte et al. 2010). University benefactors are calling for the twin ideals of efficiency and effectiveness, quality assessments and in general higher accountability for what is being produced in the ‘ivory towers’ of the university—including increased accountability for research output. These calls, and universities’ reactions to them, have developed into one of the main arenas of power games in higher education (Morley, 2003). Research suggests that these reforms have increasingly targeted universities to become more ‘complete and corporate’ organizations and this has resulted in more managed universities as we can observe in the Anglo-Saxon countries (Krücken and Meier, 2006). To a large extent universities have adopted policies of accountability and performance measurement for their academic staff. One might argue that institutional orders in research governance are changing whereby the logic of academic community with its self-regulatory governance mechanisms is being challenged by a different type of logic of performativity at the European and nation state levels leading to mixed logics in the institutional environment of universities (Greenwood et al. 2010, Thornton et al. 2012).

Different countries, however, have followed different paths in reshaping their research governance towards controlling their resources and making universities more accountable (Leisyte and Dee, 2012). This paper aims to understand the how do different types of research evaluations work and how do they influence universities? Further, we explore the implications of different research evaluations for the ‘heart’ of academic work, i.e. research in different types of economies - Liberal Market Economies and Coordinated Market Economies (Hall and Soskice, 2001). This will allow us to contribute to the understanding of the changing logics in governing universities and academic research.

We aim for a comparative two country study since we would like to compare the implications of reforms in different research governance contexts. The varieties of capitalism perspective offers a useful lens to understand the various contexts in which universities operate which may account for the variety in practices of adoption of ‘best practice’ models in university research management (Busemeyer and Trampusch, 2010). Looking at university sector we can distinguish between the two coordination types by exploring the role of the state in determining academic salaries and work conditions vis-a-vis the universities (Culpepper, 2001, Leisyte, 2012). Universities in the United Kingdom—an Anglo-Saxon higher education governance model (Clark, 1983)—have a rather high degree of professional and procedural autonomy. According to the LME model, universities in the UK have the power to hire and fire their academic staff, set their own human resource policies, rules and determine their salaries (Leisyte, 2007). In the Dutch higher education system (Continental higher education governance model (Clark, 1983)) academic staff since the mid-1990s is also employed by the universities, although traditionally they were public servants. The universities are largely regulated by the state with limited power to differentiate salaries (Leisyte and Dee, 2012). The salaries of academic staff are negotiated locally, but following the national salary scales scheme. The scheme is negotiated at the national level by the labour union representing academic staff. The influence of the labour union in determining the national salary scales is important in curtailing the competition as the universities cannot pay differentiated salaries, which is a strong feature of the Coordinated Market Economies (CME) (Leisyte, 2012). Further, the system is highly protective of academic staff in permanent positions (de Weert, 2009).

Further, as few countries in Europe have well-established and comprehensive mechanisms for external evaluation of academic research, choices for research evaluation case studies are limited: we take one instance of a summative scheme focused explicitly on resource control as found in some Eastern European countries and the United Kingdom (Campbell & Rozsnyai, 2002; Geuna & Martin, 2003), and one that is of a more formative type (found in the Netherlands). From these we chose the Research Assessment Exercises (RAE) in the United Kingdom and the research evaluations in the Netherlands. Criteria and procedures between the UK and the Netherlands show a number of remarkable differences (Geuna & Martin, 2003; similarly for quality assessment in education: Goedegebuure, Maassen, & Westerheijden, 1990): the UK focused more on ‘hard’ NPM measures such as funding, while in the Netherlands’ ‘hybrid system’ the emphasis was put on the self-regulating network of academic actors. This implies that the Dutch system is governed more by the self-regulatory academic community logic in the research evalua-

tion mechanism compared to the UK one which is more likely to be stronger driven by the performativity logic. In this way we can expect that the UK, being a Liberal Market Economy (LME) represents a model of research governance with stronger presence of the logic of performativity compared to the logic of the community, while the Dutch system, as an CME in its research governance has the logic of community more dominant than the logic of performativity.

The paper first outlines the research evaluation model in the UK and reflects on its influence on university management and the research practices of academics. In the second part of the paper, the Dutch system of research evaluation is presented, and the impact on university management and research practices is assessed. Finally, a comparison is drawn between the two systems of research evaluation and their influence on the universities and the respective research practices.

2. The development of the Research Assessment Exercise in the UK

In the 1980s, higher education and research policy in the UK had a neo-liberal feel (Kogan & Hanney, 2000). Heavy reduction of resources (e.g. an 8.5 per cent funding cut in 1981) was accompanied by system expansion (Kogan & Kogan, 1983). At the same time, student participation was increasing, and having to do 'more with less' led in turn to increasing worries about the quality of higher education. The reform agenda, therefore, included emphasis on quality control both in teaching and research (Slowey, 1995, p. 24). In 1986, the University Grants Committee started the Research Assessment Exercise as an instrument of both research selectivity and accountability (Moore et al., 2002). Since then all units wishing to receive public infrastructural funding for research must submit to periodic assessments. In the Research Assessment Exercises, as operated from 1992 until 2001,² departmental ratings were made, which intended to assess whether university research reached national or international levels of excellence. The exercise gained in importance because the results were made public and were directly linked to funding. The

² Before they were called Research Assessment Exercises, there were two Research Selectivity Exercises, in 1986 and 1989. For our purposes, it is enough to treat the RAEs, the more so, as 'important changes were introduced after the 1986 exercise suggesting that the implementation of the first venture had been poorly planned' (Tapper & Salter, 2002, p. 14). The Research Assessment Exercises were conducted by the Higher Education Funding Council(s) for England, Scotland, Wales and Northern Ireland. Through devolution, these became four different authorities, starting out from the single Universities Funding Council (UFC), the reformed UGC.

exact number of grades varied over the three instalments (five-point in 1992 and seven-point scales in 1996 and 2001), as did—more importantly—the rewards attached to the grades: after the 1992 exercise, only those that received the lowest of five rating categories were left without any quality related funding, but after the 2001 RAE, the English funding council spent all its quality related funding on units in the top three levels of the seven-point scale only. For the 2008 RAE, while maintaining most principles of previous RAEs, the scale was changed into a graded profile for each department, based heavily on the proportion of publications that were judged to be of national or international quality. When results were announced at the end of 2008, they showed that most of the units of assessment received an average score between 2.0 and 3.0. Judging from the stormy reaction in the press—“Research elite shaken by RAE settlement” and “Reversal of Fortunes” (Corbyn, 2009; Attwood & Corbyn, 2009)—the research funding pie was thereafter distributed much more widely. In the post-1992 institutions, which were rewarded for their pockets of excellence, the RAE results were welcomed. For the Russell Group universities, however, the result was a cut in funding averaging £6,100 per researcher (Corbyn, 2009). It remains to be seen how the graded profiles and the consequent changes in funding will influence the departmental and research groups’ behaviour in these universities.

The number of subject areas for the RAE varied somewhat over the years. 1992: 72 subject areas; 1996: 69 areas; 2001: 68 areas; 2008: 67 areas. In 2008, the subject areas were further grouped into 15 main panels. Evaluation panels’ ways of working changed over the years as well. In 1992, evaluations of each individual’s contribution to research were made on the basis of only two cited publications, a number considered insufficient by some; moreover the focus on books and articles resulted in an undervaluation of non-traditional forms of publication (Elkin & Law, 1994). By 2001, the basis for assessment was raised from two publications to a maximum of four (RAE Team, 1999, par. 1.8). To improve the evaluation of interdisciplinary and multidisciplinary research, panels could, beginning in 2001, ‘cross-refer’ portions of group submissions to other panels. Beginning in 2008, the use of graded profiles—each containing several per-dimension evaluations, rather than overall summative judgements—produced more fine-grained RAE evaluations.

The RAE outcomes determine the allocation of substantial sums of money: winners move ahead with well-funded research, while losing can mean, for some institutions, that

research comes essentially to a standstill. In the UK, RAE departmental ratings determine approximately 25 per cent of all university funding allocations. Measured at the level of whole institutions, these allocations did not fluctuate markedly until 2008. After the 2001 RAE, only one institution saw its total revenues affected by more than 3.7 per cent (Hicks, 2008; Sastry & Bekhradnia, 2006). The UK policy regarding research funding was built on the axiom that concentrating funds on a few research centres would lead to better research performance for the nation, and as of 2006/2007, concentration had indeed taken place: in that year, 115 out of 132 English higher education institutions obtained some level of research funding³, but more than 25 per cent of the quality related funding went to just four universities, viz. Cambridge (7.6 per cent), Oxford (7.4 per cent), University of London (7.4 per cent) and Imperial College (6.5 per cent).

This ‘gang of four’ (as they were called by the *Times Higher Education Supplement* in 2004) were the four universities for which quality related funding made up more than 50 per cent of the recurrent grant (HESA, 2007). The picture is changing slightly, however, resulting in a less-concentrated distribution. After the 2008 RAE, places like Imperial College London, London School of Economics and the University of Southampton lost significant amounts of government funds (Corbyn, 2009), while the University of Nottingham received £ 9.7 million more research funding than the previous year, an increase of around 2% of its total revenues (Attwood & Corbyn, 2009, University of Nottingham, 2009).

Because of the financial consequences, objectivity and consistency were emphasized during the evaluation process:

‘Objective data and the panels [should be] given guidance so that it is assessed in a consistent manner’; ‘It cannot be assumed [that] the panels will “recognise quality when they see it”. This approach will simply result in the same number of definitions of quality as there are panels. Full guidance and/or training must be given to panels to ensure a fair treatment of institutions’ (Irvine, 1992).

³ The 17 institutions without any research grant were mainly arts colleges and the like.

Thus, the question as to who is involved in defining the review criteria becomes an important one, as does the question of how much latitude academic reviewers have to interpret the funding council's formal mandate. Traditionally in the UK, defining research quality took the form of academic peer review. When the government designed the system of performance-based research funding, however, an intensive debate ensued about who should be responsible for defining research quality. To date, the outcome is that academics dominate the RAE panels. Thus, peer review remains dominant and the role of the academic profession remains strong. At the same time, however, the power of peer review is diluted when other (i.e. non-academic) stakeholders are appointed to the panels.

As a result of the RAE, institutional competition has become increasingly fierce: a much higher number of universities—both 'rich' and 'poor'—now bid for the same pool of funding. Since the 1980s, the Higher Education Funding Council for England (HEFCE) activities have been based on the notion of "the state as an investor in and a procurer of higher education services for which institutions competed to supply" (King, 2004, p. 23). Yet precisely what the state wants to invest in, has changed over time: after the 1996 RAE exercise, funding supported the 'general improvement of research quality', while during the 2001 exercise, HEFCE became more selective in funding by focusing on 'research excellence' and representing, therefore, a smaller number of institutions (Morgan, 2004).

Because the 2008 RAE concentrates research funding in the highest scoring subject areas, the trend of funding selectivity is most likely to continue. The major policy lines of the RAE therefore build on research departments' strengths, funding the best. The state-induced competition however, clearly leads to 'winners and losers'. Some critics argue that the competition rules are unfair since the rich institutions get richer, leading in turn to even more stratification (Kogan & Hanney 2000, p. 94). Further, selectivity logic remains the dominant theme of the Research Excellence Framework (REF) which will replace the RAE framework in 2014. After the elaborate debates in the policy circles, universities as well as professional associations, HEFCE is slowly shifting the idea of using the citations to inform the peer review based evaluation procedure. Moreover, the economic, social and public policy impact are gaining ground as important criteria of the research quality in the

REF (HEFCE 2009, 2010; Corbyn 2009). The results of these changes are difficult to fathom.

2.1 Consequences of the RAE for university management and research practices

What have been the impacts of the RAE for university management and research practices? Amidst the plethora of reports, reactions, and research, it is hard to find a balanced view (e.g. Hicks, 2007, p. 8; Westerheijden, 1991 and literature mentioned there; Wood, 1997). In short, the impacts are numerous, differentiated and valued differently (both explicitly and—more insidiously—implicitly) by different authors. Broadly speaking, the closer the authors' points of view are aligned toward policy, the more positively they valued the RAE, and conversely, the closer authors' points of view are those of academics living the realities of the RAE, the more negative they were.

First, for the universities this evaluation process was essentially a strategic optimisation game, focused on striking a balance between submitting the work of a few excellent researchers, leading to a high grade, or of many researchers, leading to a large multiplication factor. But it was a game played under uncertainty, as it was unknown beforehand which mix of researchers and their selection of core outputs would result in which rating, or how much money was going to be associated with which rating category. Moreover, if disciplinary uncertainties allowed, a strategic question was which subject panel to address: some might be 'easier' than others notwithstanding officially uniform standards. As shown in the previous section, the outcome of the game was very important for the higher education institutions resources; not only directly, through the governmental research funding, but also through the grant earning capacity associated with having highly-reputed research groups (Sastry & Bekhradnia, 2006; Leisyte, 2007). Moreover, institutions operated strategically in second-guessing subject panels, deciding that certain types of work would not contribute to the corporate research profile. This resulted in a high-level of 'gamesmanship' (Institute of Cancer Research, s.a. [2002]).

Second, RAE impact at university level strengthened the position of university management vis-à-vis academics. The quality related funding is allocated to the university as a lump sum and it is up to the university management to distribute it. As a result, staff annual review (monitoring) procedures and the development of a whole range of incentive mechanisms by university management became institutionalised, the 'carrot and stick' policies to foster research output production and overall performance of the university

staff. For example, research leaves to buy out teaching, or new staff posts and promotion have been positive incentives, while the downside of university management policies developed in relation to the RAE have included staff reduction, early retirement, dismissal, and, in extreme cases, the closing of units, departmental restructuring, and threats to become teaching-only departments (Deem et al., 2008; Leisyte, 2007).

Third, the amount of external funding is important for the submission to the RAE. The need to continually produce high quality output has meant the major encouragement from university management to increase acquisition of external research funding, as most universities do not possess sufficient resources to support their research capacity without it. This translated into all sorts of incentive mechanisms within universities, such as matching funds for external research grants, sophisticated mechanisms and offices to help write project proposals and meticulous administration of all external funding attracted by all university departments.

Finally, the RAE created a market for highly-productive researchers. Studies reported recruitment and poaching of senior researchers shortly before RAE deadlines to bolster grades. The teachers' labour union judged this negatively; others were happy with such an opportunity to increase academics' mobility (Queen Mary et al., (s.a. [2002])). The lively labour market benefited some university researchers: 'Between 2002 and 2006 the number of academics earning more than £ 100 000 increased by 169 per cent' (Hicks, 2007).

For research groups, the stability effects that universities as a whole might experience (if one research group lost in the ratings, others might win) did not apply, so that for groups for which the outcome was not an almost certain 'top' or 'end' rating, collective anxiety was large (McNay, 1997). Increasing anxiety in all but the top research groups, university managers might attach grave consequences to departments 'losing' or 'winning' in the RAEs. Many universities introduced internal, often informal, expectations of minimum ratings each department had to reach. Applying simple statistics it is understandable that once some universities start driving average performance levels up in this way, others cannot but follow or they are sure to lag behind: it takes ever more running to remain in the same place, and the pressure for publishable research increases over time.

How does the RAE impact academics' research activities? Evidence shows that the RAE has been a mixed blessing, with positive and negative, intended and unintended effects for academics' research practices. In the last decade in UK universities and academic

staff experienced changes in research funding, increasing need for external research funds, increasing competition for resources, for posts and for output production, higher pace of work and higher workloads with increased administrative load for all staff (Henkel 2000; Leisyte, 2007; Lucas 2006; McNay 1999; Morris 2002). Academics largely acknowledge the increased stratification among research groups and departments, those of 'haves and have not's', those who can afford research and those who have to concentrate on teaching. Above all, the RAE reinforced the disciplinary excellence and raised productivity (Henkel & Kogan, 2008). Overall the RAE has changed the way academics think about their individual work, especially in humanities and social sciences. There is more collaboration to attract external funding and research has become a collective rather than individual responsibility (Leisyte, 2007; Morris 2002). Looking at the core of the academic activities, changes regarding their research output production related to the RAE can be traced at the individual and research unit levels.

Moore et al. (2002) found that the RAE system led to improving research productivity during the 1990s among a sample of economists. Those in highly rated departments published more and in better journals and those in weaker departments published more, though in less highly ranked journals. Another study looking at social scientists and business related disciplines found diverse reactions to the RAE. Some academics (n=800) found RAE validated the importance of research in their work. Others found RAE distorted their academic practices and increased managerial oversight of their activities. The increased managerialism brought strong criticism from all academics, even from those who in general were in favour of the RAE (Harley, 2002; Haare, 2003). Academics emphasise the importance of academic autonomy for sustaining motivation and quality of research (Henkel, 2000).

Academic research practices have changed towards diversification of the publishing outlets as seen from the study based on 50 interviews in four universities in the UK and two universities in the Netherlands in 2005 with academics and university managers. The findings were confirmed by the follow-up study based interviewing mostly the same 50 academics and university managers undertaken in 2008 (Leisyte, 2009; Leisyte, Enders & de Boer, 2010). The study indicated that in two fields of research, history and life sciences, researchers had to comply with requirements - four publications to be submitted for the 2001 and 2008 RAE per research active member of staff. Historians tended to produce

conference papers resulting in peer reviewed journal publications in line with the demands of university management. At the same time, traditional outputs such as books retained their importance within the disciplinary community, although managerially writing books was frowned upon due to its long time production cycle. Case studies of research units in these two fields revealed that highly-ranked academics are not influenced by continuous research monitoring in everyday research practice although they ‘play the game’ of annual reviews and of submitting the required number of publications for the RAE. In research units in the life sciences, the ‘rat race’ in science continued to be the driving force for producing journal articles in top-cited peer reviewed journals. In this respect, RAE requirements were in line with the traditional ‘name of the game’ for this field of research. The majority of researchers were not sure if all the procedures were necessary since they were motivated to work hard anyway (Leisyte, 2009).

The limits on the number of outputs to be submitted may have worked against the crude, quantitative form of ‘publish [as much as possible] or perish’ pressure, but could not avoid more subtle forms. Participants and commentators agreed that the pressure to focus on ‘publishable research’ was huge. University staff experienced less time for scholarship (‘productive non-productivity’) (Leisyte, 2007; Mace, 2000). Not only on full staff members (e.g. Cownie, 2004; Henkel, 2000), but especially (Talib, 2001) on research students there was ‘an increasing pressure ... to conduct research that is publishable in nature’ (National Postgraduate Committee, 1996) and to try to achieve publications in journals (Walford, 1999). Overall, research groups responded to the demands in different ways, including (Leisyte, 2007; McNay, 1997; Queen Mary - University of London - Association of University Teachers, s.a. [2002]):

- i) ‘salami’ publishing –splitting research topics into smaller units to maximise the numbers of publications;
- ii) short-termism –curtailing project design so that it fits the artificially imposed RAE deadline; [...]
- iii) homogenisation –
 - a) the pressure on all subjects to adopt the science model of research output;
 - b) the concentration within departments on certain narrowly defined areas;

Finally, a positive, and ultimately intended, side-effect of the RAE was ‘that successive RAEs have driven up research standards’ (Institute of Cancer Research, s.a. [2002]).

Moreover, 'UK university research performance likely increased in response to the RAE', although 'faculty may be loath to admit it' (Hicks, 2007, p. 7).

3. The development of the research evaluation model in the Netherlands

In the 1970s, the aloof attitudes of both government and society with respect to research were changing in the Netherlands and the Dutch government made its first real attempts to intervene in university research. After some tentative initiatives,⁴ in 1979 a Policy Document University Research (or BUOZ-paper) stated that public research should increasingly become 1) nationally programmed, 2) more transparent and in harmony with social needs, 3) evaluated in terms of quality and 4) accounted for. When a few years later the economic situation called for cutbacks, ad hoc national evaluation committees were introduced to rationalise and redirect research (TVC and SKG operations), which led to increasing resistance in universities (Grondsma 1983, 1988; Daalder 1988; de Groot & van der Sluijs 1988; Huzen 1988; de Haan, Leeuw & Remery 1994; Nederhof 1988).

Starting almost simultaneously, research evaluations aimed at informing governmental funding decisions started in 1982. The Dutch research assessment went through three main 'generations', each however maintaining many principles and operations of their immediate predecessor (Spaapen, van Suyt, Prins, & Blume, 1988; Vereniging van Universiteiten, Nederlandse Organisatie voor Wetenschappelijk Onderzoek, & Koninklijke Nederlandse Akademie van Wetenschappen, 2003; VSNU, 1998). The biggest contrast with the RAE is that since circa 1990, in the Netherlands explicitly no consequences for governmental research funding are attached to the general research assessment.

The national government in 1982 introduced extensive evaluation of research to introduce 'conditional funding' to target research funding to 'good' research rather than continue to attach it to the per-student funding of universities. Mainly through lack of co-

⁴ In 1966, for instance, the Council for Advice for Research Policy (RAWB) was established. Also in 1966, the first 'Science Budget' document was published (as an Appendix to the Budget Statement of Ministry of Education, Culture and Sciences). Next, in the early 1970s, several research policy documents were published, organizational changes were introduced at universities and at the Ministry, where a dedicated office for science policy was installed (Blume, Spaapen, & Prins, 1985).

operation among the evaluation panels, differentiated judgements did not emerge, so that re-allocation of funding was not feasible (Spaapen et al., 1988). Nevertheless, the tools of research programming and the much-increased transparency of research activity and performance made the evaluations popular with university managers. In 1993 the Association of Universities, VSNU, took over the research assessments, but no longer were they meant for government funding, only to inform institutional leadership (VSNU, 1994).

In 1993 the modus operandi did not change much at first glance: committees of academic peers in a broad area of knowledge were appointed in co-operation between the VSNU and the Royal Netherlands Academy of Arts and Sciences (KNAW), i.e. a combination of institutional and academic ‘oligarchies’, to use Clark’s (1983) term. These committees formed collective judgements about a research group’s activities, based on information provided by the research group, including major research outputs, as well as on interviews with research group leaders (and other members). Bibliometric research may be part of the process. Assessments took place in a rolling schedule, such that in a cycle of six years all research groups were evaluated. The external evaluation reports were public, and were sent to the ministry of education for information, thus fulfilling an accountability function (VSNU, 1994; updated version: VSNU, 1998).

Judgements were expressed on five-point scales along four independent dimensions: quality, productivity, relevance and long-term viability (VSNU, 1994, pp. 13-17). In addition, verbal observations were added to each dimensional judgement. Productivity is arguably the ‘hardest’ dimension for judgement; quality (‘international recognition and innovative potential’, ‘and excitement’) comes a close second to the extent that it is associated with publication impact. Relevance (‘scientific and socio-economic impact’) is much more judgemental, although procedures and indicators have been developed (van der Meulen, 1995). The fourth dimension, viability, breaks the bounds of evaluating past performance, and introduces a forward-looking estimate of whether the research group will continue to be productive, at a high level of quality and relevance.

In 2003, the co-operation between VSNU and KNAW was further reinforced, and the national research council—a funding agency of the government—NWO was added to the coordinators (Vereniging van Universiteiten et al., 2003). Their collective development of the ‘*Standard Evaluation Protocol*’ was meant to reduce the burden of the different research evaluation exercises that existed until then. The frequency of external evaluations

remained at six years, but research groups were expected to produce a self-evaluation report midway, to be kept internal to the university. More importantly, universities were given freedom in deciding when and in comparison with whom evaluations were to take place, thereby loosening the bonds of national, disciplinary comparisons (Jongbloed & van der Meulen, 2006, p. 63).

There is no relationship between the quality assurance scheme and funding. Governmental research funding remained part of the lump sum for universities, which—whatever the particular funding model of the time—was mainly based on institutional size counted in students or graduates and which contained stabilising factors to keep year-on-year changes limited (Geuna & Martin, 2003; Jongbloed et al., 2005).

The research evaluations in the Netherlands show a clear dominance of the academic and institutional actors; the government is practically absent. Setting criteria as well as appointing evaluation panels is tightly in the hands of the academic oligarchy. The academic oligarchy also rules within the university. Rectors and deans, the major academic governance roles in universities, hail from academic backgrounds. Apart from the role academics play in assessing their work (peer review driven evaluations as well as reviewing each others' work in terms of articles and papers), academics are also active in the national research council and other organizations that develop and advise on research programmes. Thus, we would argue that quality assurance still points in the direction of (collective) academic self-governance.

3. 1 The consequences of the Dutch research assessment for university management and research practices

At the university level the influence of the external research evaluations can be judged by exploring the institutionalisation of responding to external quality judgements by management. The availability of differentiated quality judgements has been used actively by institutional managers to underpin all kinds of decisions, some of which had serious consequences for reallocation of funds, or which affected the existence of research groups and departments (Jongbloed & van der Meulen, 2006; Leisyte, 2007; van der Weijden et al. 2008; Westerheijden, 1997). Perhaps most significantly, university managers use the research assessments to make strategic decisions, which means to carefully select areas of excellence (Jongbloed, 2006). This was already the conclusion after a few years of experience with the VSNU evaluations (Westerheijden, 1997), and it was reinforced almost a

decade later: all universities have internal rules, regulations and standard operating procedures to deal with evaluations. Deans became more ‘managerial’; the central governing boards of the universities were very much involved, although they experienced ‘narrow margins’ for steering due to all kinds of constraints (Jongbloed & van der Meulen, 2006). When interviewed, they unanimously emphasised that not just the numerical judgements were taken into account, but other considerations such as institutional strategy and reality ‘behind the figures’ were also considered (again a result consistent over time: Jongbloed & van der Meulen, 2006; Leisyte, 2007; Westerheijden, 1997).

University management used positive and negative incentives. Positive incentives included new posts, promotion, tenure positions, and matching funds. Negative incentives ranged from staff reduction, department re-organisation to sharp decrease in the reallocated funding. However, the use of incentives was not automatically linked to research assessments, since some universities had more explicit procedures for performance-based behaviour than others. For example, in the case studies of life sciences groups, restrictions concerning new staff posts were equally applied to the research units in a faculty, whether judged weak or excellent in the research evaluation (Leisyte, 2007). In personnel policy, potential to be successful in research assessments and/or in obtaining external grants plays an increasing role (Jongbloed & van der Meulen, 2006).

University staff’s annual appraisal talks include outputs, work in progress, and plans for future work. This management instrument can be used in line with the research evaluation results to appraise staff. However, the influence of such evaluations on the academic mobility and competition for posts is still questionable (Leisyte, 2007; van der Weijden et al., 2008).

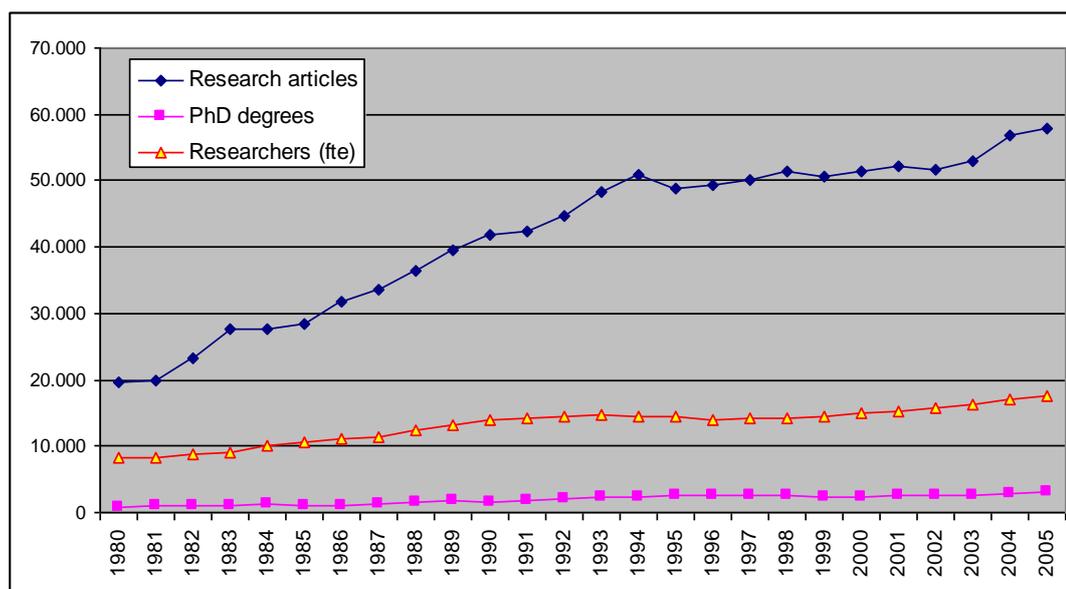
In general, studies of the effects of research evaluation procedures in the Netherlands consistently revealed that they have serious implications for research practices of academics due to institutional management (Jongbloed & van der Meulen, 2006; Leisyte, 2007; Westerheijden, 1997):

- Research assessments were accepted as valid and legitimate by researchers and managers of higher education institutions.
- Researchers co-operate more in their work.
- Researchers publish more strategically, in order to get citations that count in bibliometric indexes. “Salami publishing” is visible.

- ‘Halo effects’ were reported, in the sense that assessment outcomes influenced researchers’ positions on the market for research contracts with external funding bodies. With the *Standard Evaluation Protocol*, this was formalised with regard to research council (NWO) funding. Internal university policies to match funds to externally-gained grants, mostly introduced since the turn of the century, meant a further strengthening of the same trend.
- Researchers’ professional ambitions and managerial ambitions converged on striving for the highest grades in the Dutch research assessment.

Whether this all implied more bureaucracy or more managerialism (or both) remains to be studied. Managers became more powerful; researchers became more consciously competitive in relation to one another. Output increased considerably since the 1980s, especially in terms of scientific publications. The number of articles published by university researchers has increased threefold over the period 1980-2005 (Figure 1). Because the number of researchers increased much less, research productivity has increased: from (on average) 2.4 articles in the early 1980s to 3.0 in the early 1990s, and on to 3.3 in 2005. From 1993 onwards the number of PhD degrees awarded (another research output indicator) is relatively stable at around 2500 per year (Jongbloed, 2007, p.5).

Figure 1. Dutch universities: research production and research capacity, 1980-2005.



The longitudinal study of Dutch academic practices in 2005 and 2008 in history and life sciences research units revealed (Leisyte, 2009; Leisyte, Enders & De Boer, 2010) that the stimuli on academics to publish were transmitted mainly through annual staff appraisals and informal talks within their research institutes. The aim is to produce at least a minimum required number of publications, preferably not only in Dutch. Researchers consider what type of publications they need for their career prospects and credibility. Most interviewed academics increased their productivity by producing faster and more. This was especially true for the life sciences groups. They are largely encouraged by their group leadership and central university management as well as being led by personal career ambitions. For historians, the picture differs from life sciences, as they are still not sure how research evaluations influence them; university management apparently not always conveys clear messages (Leisyte, 2007).

The major considerations regarding publishing in the Dutch four research units are to stick to the rule of thumb of two publications per year, and then: what, where, and when to publish. The life sciences groups aim to publish articles in the highest impact factor journals. Citation indexes are taken into serious consideration, as one of researchers' evaluation criteria. Historians try to balance between their traditional books and journal articles. A high level of anxiety can be seen in increased competition for publication outlets, in increasing dominance of 'hard science' outputs (impact factors and journal articles) which may imply short-termism. Increased competition for funding is another trend reported. The research groups believe that research evaluation outcomes are important for visibility and for attracting research grants. With dwindling university funding, research grants are increasingly needed to carry out research, and in turn, produce outputs. Interviewed historians saw short-term external project funding as a threat to long-term outputs, such as books. This is a marked change from how they used to work: the standard was to publish once in five years with no need to justify how they spent their time and what they researched. Short-term outputs have become more common; 'salami publishing' is thus also seen among Dutch historians. Research units in history try to diversify and combine short-term outputs with more substantial outputs. The perceived pressure from university management and research evaluations for quantity leads to 'repackaging of ideas', said historians.

4. Similarities and differences of the two models of research evaluation and their consequences

The institutional and policy contexts in which the UK and Dutch research evaluations are placed show some interesting differences. First, in the more stratified British higher education context, making differences visible through differences in funding is more accepted than in the Netherlands. The British academic oligarchy from the elite universities not only condoned the RAEs, but actively participated in them (more than members from other universities) and supported concentration of research funds. In the Netherlands in the 1980s, research funding selectivity stranded because of academic (including 'elite' academics) resistance; in a path-dependent development, it was never tried again to link assessments to funding even though stratification gradually became less of a taboo in the Netherlands. At the same time, active participation of well-respected members of the academic community in both countries enabled academics to capture the research assessments to some extent, so that they could maintain their own, academic criteria for 'good' research against governmental policy desires. In that perspective, collaboration may have been the most successful strategy possible for the academic community.

Second, the institutional management's 'filter' may have provided academics with a more benign environment, as long as there was some financial 'fat' in the system that could mitigate negative funding decisions. In the UK, cut-backs through other policy measures since the early 1980s had taken away much more of the 'fat' than in the Netherlands, which may have made the managerial tasks for Dutch university governors somewhat easier than it was for their British counterparts. This argument may have a flipside: British university governors were forced to become managers sooner and to a larger extent, so that they were prepared for a higher level of 'gamesmanship' when the need arose.

The latter conjecture points to a third difference of context, namely the balance of power within higher education institutions between 'active' academics and people in managerial positions. British universities had stronger management at the outset of the research assessments than Dutch ones, partly because of the traditional larger degree of institutional autonomy, partly because of the changes forced upon them in the rapid rise of 'hard' NPM from the early years of the Thatcher regime onwards.

The portrayal of the UK and Dutch schemes for research assessment showed some significant differences between the two evaluation schemes, but they also shared a number of characteristics. The characteristics can be summarised as in Table 1.

Table 1. Characteristics of the research assessment schemes in the UK and the Netherlands.

	<i>The United Kingdom</i>	<i>The Netherlands</i>
Object of evaluation	Research in a university within a knowledge area (usually within a department)	Research group (usually within a department)
Output of evaluation	Single (semi-)numerical judgement (e.g. 4*)	Separate numerical judgements on four dimensions and verbal judgement
Addressee of evaluation	Funding council	Institutional leadership
Main outcome of evaluation	Research funding for the university (may lead to internal reallocation of funding)	Management decisions (may include internal reallocation of funding)
Control over criteria and standards	Peer groups in sub-panels	Peer groups in review committees
Control over process	Funding councils	Shared by Association of Universities, Royal Academy, Research Council
Consequences for research function	Concentration in few groups/universities Strengthened tendency to 'normal' science and 'safe' publications ('salami' publishing, 'short-termism') High anxiety (in some departments)	No/little redistribution across universities Strengthened tendency to strategic publication behaviour in science ('salami publishing', 'short-termism', when, what, where and in what language to publish) Low anxiety
Consequences for research funds	Concentration in few groups/universities Halo effect on external grant earning capacities	No/little redistribution across universities Halo effect on external grant earning capacities

	<i>The United Kingdom</i>	<i>The Netherlands</i>
Consequences for re-search quality	More publications, more impact (citations) Quantification of outputs Higher quality reported	More publications, more impact (citations) Quantification of outputs Effects on quality unknown
Consequences for re-searchers' labour market	More mobility, even 'poaching' More high-earners	More mobility [anecdotal] Not more high-earners ⁵

The table shows that commonalities may predominate: object of evaluation is research in a university within an area of knowledge, and the criteria and standards are interpreted by peer groups. The output may be coded differently, with a single figure in the UK (until 2008) and four figures plus explanation in the Netherlands, but in actual use the more detailed information for Dutch universities is simplified to single-number indices (fairly popularly: the sum of the four dimensions) for most management purposes. The main outcome for universities is obviously more concrete for British universities than for Dutch ones, but at the work floor level the 'filter' of institutional management may lead to largely similar consequences (more funding or less, reorganisations) so that the difference may be in difference in grade rather than a difference of principle.

The differences in grade may be quite important, though, as the main consequence is that much more concentration of research seems to take place in the UK than in the Netherlands. However, if in the Netherlands there were a unitary system as in the UK, Dutch 'former polytechnics' would show the same low level of research intensity and the concentration of research funding in 13 of 56 higher education institutions would look much more like the UK. However, within those 13 (the 'full universities'), concentration of re-

⁵ According to VSNU statistics, there were 4.0 per cent university personnel in the highest salary scales in 1999, while in 2006 there were 2.7 per cent in the same scales (not necessarily only researchers, but also non-academic administrators; source: WOPI-figures, from www.vsnu.nl, accessed 2007-08-23).

search funding would be much less marked than in the UK with its 'gang of four' receiving 25 per cent of research funding until 2008.

Concentration of funding and its concomitant stress apart, consequences seem to be quite similar in both countries: concentration on publishable research (with 'short-termism', 'salami publishing'), more publications, knock-on effects of positive or negative ratings in the official research assessments for grant-earning capacity and for internal organisational and financial reallocations, more mobility on the academic labour market.

Comparing the activities of researchers concern the core of academic life. The academics 'play the game' of university management and become more active in getting external funding and producing research outputs. In both countries academics are encouraged to publish more, at a faster rate and differently (journal articles) than they used to do. 'Short-termism' implies a limitation to what can be handled in a single article, and to safe subjects likely to come up with publishable results. This holds especially true for the UK and is mainly due to the regular and formalised targets of the RAE. Researchers try to maintain traditional disciplinary communication patterns, yet even in humanities 'salami publishing' occurs by cutting up the envisaged book, to publish articles first and then compile a book. Production time has been shortened. Competition to publish in high prestige channels has intensified in both countries: journal impact factors count for natural sciences, while for humanities, the name of the publisher and peer esteem are very important.

5. Discussion and conclusion

Different countries, however, have followed different paths in reshaping their research governance towards controlling their resources and making universities more accountable. This paper aimed to understand the implications of different research evaluations for the 'heart' of academic work, i.e. research. How do different types of research evaluations work and how do they influence universities? We expected that That research evaluation in the UK, being an LME represents a model of research governance with stronger presence of the logic of performativity compared to the logic of the community, while the Dutch system, as a CME in its research governance has the logic of community more dominant than the logic of performativity.

Answers to our initial question about how different types of research evaluations affect the universities and their research activities, have begun to emerge. Beginning with

a narrow perspective, the evaluation systems' criteria and standards limit which topics are regarded as research-worthy and which outputs should be produced. In this way, although the academic community of the discipline maintains some degree of freedom over the choice of subjects, significant inroads into what Halsey (1982) unforgettably labelled as 'donnish dominion' have been made. In both the British and Dutch cases, research performance evaluation has led to a focus on publishable research, a subset of what academics would consider 'good' research. The need to publish arose ultimately from the governmental demand for transparency and accountability from all public actors. This social desire was mediated in different ways in both countries; the state played the major role, but through the instruments of the purse in the UK, and through negotiations with higher education (after the strings of the purse were broken) in the Netherlands. In the UK, both regulation and guidance were part of the state's steering activities, with crucial parts played by an intermediary body, the funding council(s). In the Netherlands, regulation was less important for research assessments directly.

A major commonality between the British and Dutch situations is the importance of institutional managers. Through information and the real possibility to reallocate funding, positions, equipment and other research resources their power has increased vis-à-vis the academics in their institutions.

Also, there are striking similarities between the stability and change in academic practices in the two countries. Key similarities include short-termism, quantification of outputs, and 'salami' publishing. Contrasts include high stress levels among the English academics and high academic mobility, both of which are present but less prominent in the Netherlands. All in all, then, the game of research evaluation is played with higher stakes in the UK than in the Netherlands, but where the two countries end on balance—i.e. the relative effectiveness and efficiency of the research assessment models in the two countries—is a question to which different answers continue to co-exist.

Thus, the expectation is only partially met as in both systems we see research evaluation being driven by the logic of performativity and having similar impact on research management in universities despite the differences in the nuances of the linkages between performance and funding. At the same time, research evaluation has higher stakes in the UK than in the Netherlands for academic research, which points to the stronger adoption of the logic of performativity in the UK system. The logic of performativity

governing academic research seems to be present although with varied strength in different types of capitalist systems as shown from the case study of research evaluation systems in the UK and the Netherlands.

Literature

- Attwood, R., & Corbyn, Z. (2009). Research elite shaken by RAE settlement. *Times Higher Education*, March 5, retrieved September 14, 2009, from www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=405676.
- Blume, S. S., Spaapen, J. B., Prins, A. A. M. (1985). *De externe beoordeling van wetenschappelijk onderzoek aan Nederlandse universiteiten en hogescholen. Twee jaar Voorwaardelijke Financiering: een leerproces*. 's-Gravenhage: Staatsdrukkerij.
- Busemeyer, M. R. & Trampusch, C. (2011). Review Article: Comparative Political Science and the Study of Education. *British Journal of Political Science*, 41(2), 413-443.
- Campbell, C., & Rozsnyai, K. (2002). *Quality assurance and the development of course programmes*. Bucharest: UNESCO-CEPES.
- Clark, B. R. (1983). *The higher education system: academic organization in cross-national perspective*. University of California Press, Berkeley.
- Corbyn, Z. (2009). Reversal of fortunes. *Times Higher Education*. March 5, retrieved September 14, 2009, from www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=405690.
- Cownie, F. (2004). Two Jobs, Two Lives and a Funeral: legal academics and work-life balance. *Web Journal of Current Legal Issues* no. 5, retrieved October 13, 2008, from www.webjcli.ncl.ac.uk/2004/issue5/cownie5.html.
- Culpepper, P. D. 2001. Politics of Decentralized Cooperation. In P. A. Hall and D. Soskice (Eds.), *Varieties of Capitalism*: 275-306. Oxford: Oxford University Press.
- Daalder, H. (1988). Beleid, visitatie en kwaliteitsbeoordeling. *Acta Politica*, XXIII, 61-100.
- Deem, R., Hillyard, S., & Reed, M. (2008). *Knowledge, higher education and the new managerialism. The changing management of UK universities*. Oxford: Oxford University Press.
- de Boer, H., Enders, J., & Leisyte, L. (2007). On striking the right notes: Shifts in governance and the organizational transformation of universities. *Public Administration*, 85 (1), 27-46.

- de Groot, H., & van der Sluis, J. (1986). *Bestuurlijke reacties op bezuinigingen: een economisch model*. Rotterdam: Erasmus Universteit Rotterdam.
- de Haan, J., Leeuw, F. L., & Remery, C. (1994). Accumulation of Advantage and Disadvantage in Research Groups. *Scientometrics*, 29 (2), 239-251.
- de Weert, E. (2009). The organised contradictions of teaching and research: Reshaping the profession. In J. Enders & E. de Weert (Eds.), *The changing face of academic life*. Basingstoke: Palgrave MacMillan.
- van der Meulen, B. R. (1995). *Indicatoren en indicaties voor de beoordeling van maatschappelijke kwaliteit van onderzoek*. Enschede: Universiteit Twente.
- Elkin, J., & Law, D. (1994). Research Assessment Exercise 1992; Library and Information Management and Communications and Media Studies Panel *Journal of Librarianship and Information Science*, 26 (3), 141-147.
- Geuna, A., & Martin, B. R. (2003). University research evaluation and funding: an international comparison. *Minerva*, 41 (4), 277-304.
- Gläser, J., Laudel, G., Hinse, S., & Butler, L. (2002). *Impact of evaluation-based funding on the production of scientific knowledge: What to worry about and how to find out*. Expertise for the Germany Ministry for Education and Research, retrieved October 10, 2008, from www.sciencepolicystudies.de/dok/expertise-glae-lau-hin-but.pdf.
- Greenwood, R., Díaz, A. M., Li, S. X., & Lorente, J. C. (2010). The multiplicity of institutional logics and the heterogeneity of organizational responses. *Organization Science*, 21(2), 521-539
- Grondsma, T. (1983). *TVC-proces en speltheorie*. Delft: Technische Hogeschool Delft.
- Grondsma, T. (1988). Sturen op afstand via de onderhandelingsarena? *Beleidswetenschap*, 2, 360-369.
- Hall, P. & Soskice, D. (2001). *Varieties of capitalism: The institutional foundations of comparative advantage*. Oxford: Oxford University Press.
- Halsey, A. H. (1982). The decline of Donnish dominion? *Oxford Review of Education*, 8 (3), 215-229.

- Hare, P. G. (2003). The United Kingdom's Research Assessment Exercise: impact on institutions, departments, individuals. *Higher Education Management and Policy*, 15.(2), 43-62.
- Harley, S. (2002). The impact of research selectivity on academic work and identity in the United Kingdom universities. *Studies in Higher Education*, 27 (2),187-205.
- HEFCE. (2009). *Interim report of the REF bibliometrics pilot exercise*. Bristol: HEFCE.
- HEFCE. (2010). Research Excellence Framework 2014, retrieved September 14, 2010, from <http://www.hefce.ac.uk/research/ref/>.
- Henkel, M. (2000). *Academic identities and policy change in higher education*. London: Jessica Kingsley Publishers.
- Henkel, M., & Kogan. M. (2008). The public interest and the academic research enterprise: the UK case. In D. Dill & V. van Vught (Eds.), *The Academic Research Enterprise*. Baltimore: Johns Hopkins University Press.
- HESA. (2007). *Higher education statistics for the UK*. Cheltenham: Higher Education Statistics Agency.
- Hicks, D. (2008). Evolving regimes of multi-university research evaluation. *Higher Education*. (No. Working Paper #27). Atlanta, Ga.: Georgia Institute of Technology, School of Public Policy, retrieved November 13, 2008, from www.spp.gatech.edu/faculty/workingpapers/wp27.pdf.
- Huzen, T. P. (1988). Schaamte, waar is uw blos? Kritische kanttekeningen bij "Sterkte/zwakteanalyse sociologie, politicologie en bestuurskunde". *Acta Politica*, XXIII, 101-108.
- Institute of Cancer Research. (s.a. [2002]). *Funding bodies review of research assessment - response by the Institute of Cancer Research*, retrieved August 6, 2007, from <http://www.ra-eview.ac.uk/invite/responses/subj/68.pdf>.
- Irvine, J. (1992). *Comments by the national postgraduate committee on the 1992 research assessment exercise*, retrieved September 8, 2007, from <http://www.npc.org.uk/postgraduatefactsandissues/oldpolicyresponsesarchive/commentsbythenationalpostgraduatecommitteeon-the1992researchassessmentexercise1992>.
- Jongbloed, B. (2006). Academic research in the Dutch delta. Paper presented at the Academic Research Enterprise Seminar, 9-12 November, in Seville, Spain.

- Jongbloed, B. (2007). Steering the Dutch academic research enterprise: universities' responses to project funding and performance monitoring. Paper presented at the 20th CHER conference, August 30 - September 1, in Dublin, Ireland.
- Jongbloed, B., & van der Meulen, B. R. (2006). *Investeren in Dynamiek - eindrapport Commissie Dynamisering - Deel 2: De follow-up van onderzoeksvisitaties: onderzoek in opdracht van de Commissie Dynamisering, Eindrapportage*. Den Haag: Ministerie van Onderwijs en Wetenschappen.
- Jongbloed, B., Salerno, C., Huisman, J., & Vossensteyn, H. (2005). *Research prestatiemeting: Een internationale vergelijking* (No. 113). Den Haag: Ministerie van Onderwijs Cultuur en Wetenschap.
- King, R. (2004). Governing universities: varieties of national regulation. Paper presented at the 17th CHER Conference, 17-19 September, in Enschede, the Netherlands.
- Kogan, M., & Hanney, S. (2000). *Reforming higher education*. London and Philadelphia: Jessica Kingsley Publishers.
- Kogan, M., & Kogan, S. (1983). *The attack on higher education*. London: Kogan Page.
- Krücken, G., & Meier, F. (2006). Turning the university into an organizational actor. In G. Drori, J. Meyer, & H. Hwang (Eds.), *Globalization and organization: World society and organizational change*, 241-257. Oxford, UK: Oxford University Press.
- Leisyte, L. (2007). *University Governance and Academic Research*. PhD dissertation, CHEPS, University of Twente.
- Leisyte, L. (2009). Academic Output Preferences in the Context of Changing Higher Education and Research Governance Arrangements. In P. Clancy & D. Dill (Eds.), *The Research Mission of the University. Policy Reforms and Institutional Response* (pp. 133-152). Rotterdam: Sense Publishers.
- Leisyte, L., Enders, J. & de Boer, H. (2010) Mediating Problem Choice. In R. Whitley, J. Gläser & L. Engwall (Eds.), *Reconfiguring Knowledge Production. Changing Authority Relationships in the Sciences and their Consequences for Intellectual Innovation* (pp. 266-290). Oxford: Oxford University Press.
- Leisyte, L. and Dee, J. (2012) Changing Academic Practices and Identities in Europe and the US. Critical Perspectives. In Smart J.C. and Paulsen M.B. (Eds.) *Higher Education: Handbook of Theory and Research*. Dordrecht: Springer.

- Leisyte, L. (2012). Local responses to global templates. The case of the entrepreneurial university. Paper presented at the 28th EGOS conference, Helsinki.
- Lucas, L. (2006). *The research game in academic life*. Buckingham: SRHE/Open University Press.
- Mace, J. (2000). The RAE and university efficiency. *Higher education review*, 32 (2), 17-35.
- McNay, I. (1997). *The impact of the 1992 RAE on institutional and individual behaviour in English higher education: the evidence from a research project*. Bristol: Higher Education Funding Council for England.
- McNay, I. (1999). The paradoxes of research assessment and funding. In M. Henkel & B. Little (Eds.), *Changing relationships between higher education and the state* (pp. 191-203). London: Jessica Kingsley Publishers.
- Moore, W.J., Newman, R. J., Sloane, P.J., & Steely, J.D. (2002). Productivity effects of Research Assessment Exercises. Discussion Paper 2002-02, Centre for European Labour Market Research, University of Aberdeen, Aberdeen, retrieved on November 10, 2008 from http://www.bus.lsu.edu/economics/papers/pap02_15.pdf.
- Morgan, F. J. (2004). The Research Assessment Exercise in English universities. *Higher Education*, 48, 461-482.
- Morley, L. (2003). *Quality and power in higher education*. Maidenhead: Open University Press.
- Morris, N. (2002). The developing role of departments. *Research Policy*, 31, 817-833.
- National Postgraduate Committee. (1996). *Impact of the Research Assessment Exercise. Response by the national postgraduate committee*, retrieved on October 13, 2008, from <http://www.npc.org.uk/postgraduatefactsandissues/oldpolicyresponsesarchive/impactoftheresearchassessmentexerciseresponsebythenationalpostgraduatecommittee1996>.
- Nederhof, A. J. (1988). *Meting van kwaliteit van vakgroepen in de antropologie, bestuurskunde en psychologische functieleer: Een empirische benadering*. Paper presented at the NSAV studiedag 'Meten van kwaliteit ...', in Amsterdam, the Netherlands.

- Queen Mary - University of London - Association of University Teachers. (s.a. [2002]). *Response to HEFCE RAE Review*, retrieved August 9, 2007, from <http://www.rae-review.ac.uk/invite/responses/stake/30.pdf>.
- RAE Team. (1999). *Assessment panels' criteria and working methods* (No. RAE Circular 5/99). Bristol: Higher Education Funding Council for England.
- Sastry, T., & Bekhradnia, B. (2006). *Using metrics to allocate research funds. A short evaluation of alternatives to the Research Assessment Exercise*. Oxford: Higher Education Policy Institute.
- Slowey, M. (1995). Reflections on change - academics in leadership roles. In M. Slowey (Ed.), *Implementing Change From Within Universities and Colleges* (pp. 23-37). London: Kogan Page.
- Spaapen, J., van Suyt, C. A. M., Prins, A. A. M., & Blume, S. S. (1988). *De moeizame relatie tussen beleid en onderzoek: Evaluatie van vijf jaar Voorwaardelijke Financiering*. Zoetermeer: Ministerie van Onderwijs & Wetenschappen,
- Talib, A. A. (2001). The continuing behavioural modification of academics since the 1992 Research Assessment Exercise. *Higher education review*, 33 (3), 30-46.
- Tapper, T., & Salter, B. (2002). The politics of governance in higher education: the case of the Research Assessment Exercises, *OxCHEPS Occasional Papers*, retrieved October 13, 2008, from www.new.oxford.ac.uk/oxcheps.
- Thornton, P. H., Ocasio, W., & Lounsbury, M. (2012). *The institutional logics perspective: A new approach to culture, structure and process*. New York: Oxford University Press.
- University of Nottingham. (2009). *Global assets. Financial Statements for the year ended 31 July 2009*. Nottingham: Nottingham University.
- van der Weijden, I., de Gilder, D., Groenewegen, P., & Klasen, E. (2008). Implications of managerial control on performance of Dutch academic (bio)medical and health research groups. *Research Policy*, 37, 1616-1629.
- Vereniging van Universiteiten, Nederlandse Organisatie voor Wetenschappelijk Onderzoek, Koninklijke Nederlandse Akademie van Wetenschappen. (2003). *Standard Evaluation Protocol 2003 - 2009 for public research organisations*, Utrecht, Den Haag, Amsterdam: VSNU; NWO; KNAW.
- VSNU. (1994). *Quality assessment of research: protocol 1994*. Utrecht: VSNU.

- VSNU. (1998). *Assessment of Research Quality: protocol 1998*. Utrecht: VSNU.
- Walford, L. (1999). The Research Assessment Exercise: its effect on scholarly journal publishing. *Learned Publishing*, 13 (1), 49–52.
- Westerheijden, D. F. (1997). A solid base for decisions: use of the VSNU research evaluations in Dutch universities. *Higher Education*, 33.(4),397-413.
- Westerheijden, D.F. (2008) Excellence in European Higher Education: Bologna, and Beyond? *Journal of Higher Education* 3 (1), 1-33.
- Wood, F. Q. (1997). *The peer review process (Report No. 54)*. Canberra: Australian Government Publishing Service.

Bisher erschienene discussion paper des Zentrums für Hochschulbildung (vormals Zentrum für Weiterbildung), Technische Universität Dortmund

01-2006	Uwe Wilkesmann & Doris Blutner: Kollektives Handeln zur Produktion und Allokation von Clubgütern im deutschen Profifußball. Oder: Warum lassen sich die Interessen kleiner Vereine trotz Mehrheit nur schwer organisieren?
02-2006	Uwe Wilkesmann, Heike Fischer, Anne Rubens-Laarmann und Grit Würmseer: Hat der MBA Signalfunktion? Eine Marktanalyse zur Bedeutung und Gestaltung von MBA-Studiengängen im Gebiet Rhein-Ruhr.
01-2007	Anne Rubens-Laarmann: Marketing für die universitäre Weiterbildung am Beispiel des Zentrums für Weiterbildung an der Universität Dortmund.
02-2007	Uwe Wilkesmann & Maximiliane Wilkesmann & Alfredo Virgillito: Requirements for knowledge transfer in hospitals How can knowledge transfer be supported in hospitals?
03-2007	Uwe Wilkesmann & Grit Würmseer: Wissensmanagement an Universitäten.
04-2007	Maximiliane Wilkesmann & Uwe Wilkesmann & Alfredo Virgillito Inwieweit unterstützen die Faktoren Motivation und Organisationskultur technikorientiertes Wissensmanagement in Krankenhäusern?
05-2007	Maximiliane Wilkesmann: Wissenstransfer(s) in der Organisationsform Universität.
06-2007	Doris Blutner: Technik als funktionales Äquivalent für soziale Institutionen. Spekulationen über Wirkungsmechanismen von Technik.
07-2007	Maximiliane Wilkesmann, Uwe Wilkesmann, Ingolf Rascher, Ralf Kopp & Peter Heisig: Wissensmanagementbarometer -Studie im Auftrag des Bundesministeriums für Wirtschaft und Technologie. Executive Summary (Kurzversion).
08-2007	Uwe Wilkesmann: Die Organisation der Weiterbildung.
01-2008	Uwe Wilkesmann & Grit Würmseer: Unter welchen Bedingungen sind managerial governance und academic self-governance von Hochschulen auf der individuellen Ebene der Lehrenden handlungswirksam?
02-2008	Gila Brandt-Herrmann & Uwe Wilkesmann: IT-gestütztes Wissensmanagement in der Werkshalle – geht das?
01-2009	Uwe Wilkesmann, Alfredo Virgillito, Maximiliane Wilkesmann: Knowledge management as second level management – Evidence from a survey.
02-2009	Uwe Wilkesmann, Maximiliane Wilkesmann, Alfredo Virgillito, Tobias Bröcker: Erwartungen an Betriebsräte. Erste Ergebnisse der quantitativen Befragung.

01-2010	Maximiliane Wilkesmann: Der professionelle Umgang mit Nichtwissen – Einflussfaktoren auf der individuellen, organisationalen und organisationsübergreifenden Ebene
01-2011	Uwe Wilkesmann, Maximiliane Wilkesmann & Alfredo Virgillito: Knowledge Transfer in German Hospitals
01-2012	Heike Fischer, Björn Peters: Blockveranstaltungen – Lehrformat für eine heterogene Studierendenschaft?
02-2012	Uwe Wilkesmann, Heike Fischer & Alfredo Virgillito: Academic Motivation of Students – The German Case