

Counting on an Iterative Process: Initial Lessons from the Research Assessment Exercise 2008

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Abstract: The aim of this paper is to present the early stages of a critical analysis of the Research Assessment Exercise (RAE) 2008 which is intended to generate a model that can be of practical use in the Research Excellence Framework 2013. By drilling down into the research outputs available on the RAE 2008 website we intend to compare the context and methodologies used in more and less successful submissions. We show how an on-going study may generate results that are useful in progressing towards both discovering answers to the Research Questions and refining of the methods used. The results of the RAE 2008 in the field of Business and Management may have been disappointing for a number of institutions. However, the feedback in the form of the RAE ratings is difficult to use in making improvements to performance. This paper uses Westminster Business School (WBS) a post-1992 business school, as an example, and focuses on the Research Output aspect of the RAE ratings. It shows how a comparison of a sample of submitted outputs from this business school and those of two more successful institutions is a relevant exercise which reveals some useful areas for improvement and is worth re-focusing to provide more constructive feedback. Following a precursory literature review which sets the scene of differing but often not-quite-understood statuses of the qualitative and quantitative paradigms, initial findings suggest that the RAE outputs submitted by these three business schools vary substantially in terms of indicators of prestige and features such as topic area, journal rankings and citations; indicators of resources and professional network such as number of different topics, authors and location of authors; and indicators of methodology and method. The analysis takes into account the requirements of the 2013 Research Excellence Framework (REF) in order to progress. In this way the results of the RAE may be used to assist in institutional preparations for the REF.

Keywords: RAE 2008, REF 2013, research methods, qualitative, quantitative, research outcomes, iterative process

1. Introduction

We may 'all know the Research Assessment Exercise (RAE), but it is far from true that we all 'love' it (Oppenheim, 1996). The RAE 2008 was intended to create a ranking of institutions according to quality of research activity as a basis for the determination of research grants from the HE funding bodies (RAE, undated). The results in the field of Business and Management Studies may have been disappointing for a number of institutions.

The ratings themselves form a type of feedback, especially by ranking the institutions in comparison with each other. However, this feedback is difficult to use in making improvements to performance as there is no indication as to the direction of renewed effort.

The ratings in the areas of Research Outputs, Research Environment, and Esteem Indicators graded business schools according to published criteria requiring 'originality, significance and rigour' at 'world-leading' (4*), 'internationally excellent' (3*), 'recognized internationally' (2*) and recognized nationally' (1*) levels (Ghobadian, 2009; RAE, undated; Seale, 1999).

'Originality' requires the innovation or distinctiveness of: the methodological approach, the datasets used, the research questions posed and the underlying theoretical framework.

'Significance' includes the insight and scope of coverage of the work, the impact on the discipline in the UK or internationally, the extent to which it has opened up new areas of research and current or potential impact on policy and practice.

'Rigour' involves the contextualisation of the work, the strength, appropriateness and intellectual coherence and the extent to which the research outcomes are supported (Ghobadian, 2009).

This on-going study 'drills down' into material available on the RAE 2008 website in order critically to evaluate the salient features of the more successful business schools. We intend to generate a model that can be of practical use in the RAE's successor, the Research Excellence Framework (REF)

2013. This is an area that has received little attention in the academic literature on Research Methods in Business and Management; however, it is important to investigate and analyse the peer evaluation of scholarly endeavours. For this paper we have focussed on the outputs of the research from the perspective of research methodology: the paradigms which seem to be in opposition and the methods employed. We demonstrate the iterative character of our project in terms of the theoretical base and also the sample chosen.

Assessing the quality of research publications is clearly a contentious activity; even the search for judgement criteria is seen as 'controversial' (Seale, 1999). The problem is magnified by the existence of the two seemingly monolithic paradigms. The positivist approach, as we know, favours quantitative methods which are able to 'prove' results by counting responses (often large numbers of them) and performing mathematical feats to demonstrate correlations; the newer interpretivist, or phenomenological, qualitative tradition, on the other hand, prefers to delve behind the figures (often very few of them, even a sample of one only) to discover the reasoning behind behaviours and attitudes.

The battle over what constitutes the best research wages on a field where the definition of 'best' is not agreed. An extreme personal experience illustrates this contest in unusually concrete terms. One of the writers of this paper witnessed a scene at an international conference (not the ECRM) three years ago in which a keynote speaker giving an address on qualitative methods was booed and shouted down by a group (manifestly identifying themselves as) of quantitative researchers.

This paper continues with the following structure. After reviewing the literature in the field of quality in Research Methods and discussing the method for this study, it will use Westminster Business School, a post-1992 institution, as an example, and focus on the Research Output aspect of the RAE ratings. It will use material available on the RAE website to begin to analyse submitted outputs from this business school and those of a comparator (post-1992) institution which was more successful in the RAE and a very successful business school, in order to discover the characteristics of papers submitted by those who were more successful in the RAE 2008 and the differences between theirs and those of WBS. The analysis will take into account the requirements of the 2013 REF in order to progress. In this way the results of the RAE 2008 may be used to assist in institutional preparations for the REF.

2. Literature review

The valuing of research from the two traditions must begin with an agreement on what constitutes good quality research and how this 'good quality' may be termed. The research methods lexicon is stretched in several directions at once as Leech (2007) advocates 'scientific' research as a measure of quality although she is critical of an environment in which grant awarding bodies prefer quantitative studies over qualitative, offering the former 'money, prestige and distinction'. Seale (1999), however, regards 'quantitative' and 'scientific' as synonymous. Since the sciences in which quantitative methods originated are often regarded as the producers of objective 'truth' and the 'crowning achievements of Western Civilization' (Carey, 1989:99, cited by Denzin and Lincoln, 1998:7), qualitative researchers may well feel, as Leech (2007) says, 'left out'. Leech refers to the emotion felt by qualitative researchers saying that (contrary to the experience described above) they are the ones who exhibit anger and use 'unnecessarily provocative language'.

Both qualitative and quantitative methodologies receive criticism. Quantitative methods are said to be 'too narrow and limiting' (Cavanagh and Reynolds, 2005) as well as a long list of derogatory epithets including 'oppressive', 'arrogant', 'dull-minded' and 'so-called evidence-based' quoted by Smagorinsky (2007). While 'in a world where numbers talk', qualitative research is said to lack reliability and to deal in anecdotalism (Silverman, 2006). Seale (1999) considers the contrast between the two paradigms as 'overdrawn' and promoted by qualitative researchers concerned to 'emphasise difference'. As we have seen, however, it is not only qualitative researchers who want to promote their own cause.

Validity and reliability are generally considered to be features of creditable research. However, whilst these are accepted as 'important criteria' in quantitative research (Bryman and Bell, 2007:410), they are less easily achieved in qualitative research. This difference is explained as quantitative researchers are able to agree on what constitutes validity and reliability whereas qualitative researchers have faced challenges in reaching consensus. They are apparently keen to convince research funding bodies of the value of their work whilst at the same time valuing 'creativity' and 'a

freedom of spirit' and distancing themselves from the positivist tradition (Seale, 1999:467). The multiplicity of approaches in qualitative research makes it more difficult to communicate its value to external bodies and to new researchers, and makes it harder to define criteria for assessment. For Lawler (1999) the over-riding elements of a good quality study are its usefulness for practice and its contribution to theory-appropriate knowledge. The REF will use the criterion of social and economic impact related to policy generation. This revised direction is contested; mainly it must be said by academics in fields other than Business and Management (see e.g. Newman, 2010); researchers within this field may be more able than most to address the requirement to inform policy.

Norris and Oppenheim (2003) confirmed previous research in finding a high correlation between results in the RAE 2001 and citation impact. This may, however, be a spurious and iniquitous measure as Oppenheim himself had noted seven years earlier that previous research may be cited for a number of often contradictory reasons, including 'to criticise' it. An incorrect or contentious publication, in that case, probably has an equal or even better chance of citation as one that has otherwise all the features of good quality research. Some cited works, which Oppenheim (1996:156) terms 'false drops' may not even be related to a subject. The majority of works are never cited, others (10-30% according to Oppenheim) are cited only by their own authors. On the other hand, authors of classic works (such as Einstein and Alzheimer) are rarely cited as they reach Oppenheim's Nirvana of 'citation oblivion' (Oppenheim, 1996:158). Oppenheim's caveats notwithstanding, the REF 2013 will use bibliometrics (citation impact) as one of its criteria (HEFCE, 2009). Cassell et al (2003; 2006) suggest that both quality of research and a bias in the external research community are important in this argument. Their research confirms weaknesses in qualitative research methods training as well as problems with the perception and assessment of qualitative research by key players in the research domain such as journal editors and funding bodies. They argue for "contingent criteria to assess the value of different qualitative contributions by appropriate assessments". At the moment, quantitative data is seen as inherently more reliable and objective. Lee et al (2006) also conclude from findings from the 2001 RAE for Finance and Accounting that the RAE encourages quantitative research at the expense of qualitative research.

In some disciplines the discussion of assessment criteria is more prominent than others: for health and medical research for instance Daly et al (2007) propose a hierarchy of evidence to assess qualitative research. These criteria are "based on the central methodological task of the qualitative researcher: defining a theoretical framework for the study, specifying a sampling process, describing the methods of data collection and analysis, and drawing research conclusions". However, the hierarchy proposed which goes from a single case study at the lowest level to descriptive studies, to conceptual studies, to 'generalisable studies in which sampling is focused by theory and the literature, extended as a result of analysis to capture diversity of experience.' at the top, may still be judging based on the more traditional quantitative criteria. However, not all are convinced that determining a unified set of assessment criteria for qualitative research is possible and would give a solution (see e.g. Dixon-Woods et al, 2007):.

3. Research questions

This stage of the study addresses the following questions in order to compare research outputs according to 'originality, significance and rigour' (ABS, undated):

- How do the outputs of WBS submitted to the RAE 2008 Unit of Assessment (UoA) 36, Business and Management Studies differ from those of higher ranked business schools in terms of methodology, research techniques employed and subject matter?
- How do these RAE outputs of WBS differ from those of higher ranking business schools in terms of journal rating and citation impact?
- How do these RAE outputs of WBS differ from those of higher ranking business schools in terms of authorship?

4. Method

As the outputs submitted for the RAE exercise are accessible through the RAE website, we are able to read them to assess differences between them. To improve understanding of what kind of research and outputs WBS should be aiming at producing for the REF 2013 to raise its rating over that achieved in 2008, a sample of its own outputs in the Unit of Assessment 36 - Business and Management Studies - is compared in this first wave of the analysis with samples of those of two

other UK business schools. The selection criteria used for the institutions were that one of the business schools should be, like WBS, a post-1992 institution and above WBS in the rankings and the other should be at the top of the rankings. The rationale for this method is that both low-level and high-level improvements may be identified. One limitation of this method, which we fully recognise, is that although all the outputs are provided there is no way of knowing exactly at which level any individual publication was judged. Therefore we are aggregating features of the outputs of each university in order to form a view of overall tendencies. For this paper we compare outputs from London Business School (LBS), the top business school in research output ranking, Westminster Business School (WBS), which is ranked near the bottom of the top 35% of the rankings and Kingston University, which is ranked in the middle between LBS and WBS and is also the top-ranking post-1992 business school. Below (Table 1) is the list of universities ranked within the first 35% by research outcomes in the Business and Management field. A second limitation of the method, which will be addressed as the study progresses, is that in drilling down into the data available on LBS, it becomes apparent that this institution is less appropriate as a comparator for WBS – even as an aspirational one – as its output topic areas, interests and priorities are vastly different from those of WBS. Nonetheless, for the current paper, we continue with the analysis using the LBS data in order to demonstrate the iterative process of the study.

The sample of outputs has been compiled ‘randomly’ by downloading them in the alphabetical order of the target author at each institution. The samples consist of 50 of the 90 outputs submitted by WBS, 51 of the 310 outputs submitted by LBS and 27 of the 81 submitted by Kingston University. Universities were ranked by GPA in terms of research outputs between 1 and 4, using percentages published at each RAE star level (we did not include ‘unclassified’). That is to say, a university with the following profile: papers at 4* (40%), 3* (30%), 2*(20%) and 1* (10%) will have an GPA (grade point average) of $(4 \times 0.40) + (3 \times 0.30) + (2 \times 0.20) + (0.10) = 3$. A GPA of 4 would indicate a perfect score of exclusively 4* submitted work.

Table 1: GPA research outputs RAE 2008 for the top 35% in unit of assessment 36, business and management studies

| | | | | | |
|--|------|-----------------------------------|------|--|------|
| London Business School | 3.19 | University of Birmingham | 2.64 | Heriot-Watt University | 2.35 |
| Imperial College London | 3.09 | Aston University | 2.61 | University of Brighton | 2.35 |
| University of Oxford | 2.84 | University of Leicester | 2.6 | University of Hertfordshire | 2.35 |
| University of Cambridge | 2.83 | University of York | 2.59 | Open University | 2.32 |
| London School of Economics and Political Science | 2.81 | University of Manchester | 2.57 | De Montfort University | 2.31 |
| King's College London | 2.8 | City University, London | 2.54 | University of Ulster | 2.31 |
| Cardiff University | 2.8 | University of Reading | 2.53 | University of Glasgow | 2.31 |
| Cranfield University | 2.78 | Kingston University | 2.53 | Manchester Metropolitan University | 2.31 |
| University of Bath | 2.77 | Queen's University Belfast | 2.52 | School of Oriental and African Studies | 2.31 |
| University of Leeds | 2.76 | University of Bradford | 2.5 | Middlesex University | 2.3 |
| University of Warwick | 2.74 | University of Liverpool | 2.49 | University of Bristol | 2.27 |
| University of Exeter | 2.73 | University of Surrey | 2.48 | University of the West of England, Bristol | 2.21 |
| Lancaster University | 2.72 | University of Southampton | 2.48 | Nottingham Trent University | 2.19 |
| University of St Andrews | 2.7 | University of Newcastle upon Tyne | 2.48 | Robert Gordon University | 2.18 |
| Royal Holloway, University of London | 2.7 | University of Kent | 2.47 | Glasgow Caledonian University | 2.17 |
| University of Strathclyde | 2.68 | University of Aberdeen | 2.45 | University of Westminster | 2.17 |
| Queen Mary, University of London | 2.68 | Swansea University | 2.45 | Oxford Brookes University | 2.13 |
| University of Durham | 2.67 | Birkbeck College | 2.43 | Brunel University | 2.12 |
| Loughborough University | 2.66 | Keele University | 2.41 | University of Plymouth | 2.12 |
| University of Sheffield | 2.66 | University of East Anglia | 2.36 | University of Stirling | 2.12 |
| University of Nottingham | 2.64 | University of Edinburgh | 2.36 | University of Hull | 2.09 |

Source: RAE 2008

5. Presentation and discussion of interim findings

The preliminary findings indicate that the submissions of LBS, Kingston and WBS vary dramatically on indicators of prestige, subject, resources and professional network, method and methodology. We will discuss these in the sub-sections below.

5.1 Indicators of prestige and subject

As indicators of prestige we have included the currently available 2010 ABS journal ranking of the sample of submitted papers (Table 2) and the number of citations (seen via the Google Scholar search engine in February 2010) (Table 3) for each submission. Table 2 shows that 73% of the LBS sample were published in 4* journals, compared to only 26% and 8% in the other two institutions: most of WBS's and Kingston's publications were in 3* and 2* journals. These are findings that we can intuitively expect; they show that the RAE judgments and the ABS ratings are in line with each other.

Table 2: ABS star rating of submitted papers (in percentage)

| | WBS | Kingston | LBS |
|--------------------------|------|----------|------|
| 4 star | 8% | 26% | 73% |
| 3 star | 38% | 41% | 14% |
| 2 star | 36% | 26% | 4% |
| 1 star | 6% | 7% | 0% |
| No information/rating | 12% | 4% | 10% |
| Total | 100% | 100% | 100% |
| <i>absolute numbers:</i> | 50 | 27 | 51 |

Source: RAE 2008

The number of citations also varies considerably. While the WBS and Kingston samples have few or no outputs which are cited more than 50 times by other publications, a considerable percentage (43%) of LBS's sample publications are cited at this level. This might especially impact on the quality criteria of *originality* and *significance*.

Table 3: Citation impact per submitted output (in percentage)

| | WBS | Kingston | LBS |
|--------------------------|------|----------|------|
| 10 or fewer citations | 70% | 51% | 13% |
| 11-25 | 14% | 19% | 30% |
| 26-50 | 12% | 30% | 13% |
| 51-100 | 4% | 0% | 10% |
| 101-250 | 0% | 0% | 13% |
| 251-500 | 0% | 0% | 8% |
| more than 500 | 0% | 0% | 3% |
| no info | 0% | 0% | 10% |
| Total | 100% | 100% | 100% |
| <i>Absolute numbers:</i> | 50 | 27 | 51 |

Source: RAE 2008

The prestige and citations might link with the topic area of the publications, as the number of 4* and 3* journals differs significantly per subject area. In Table 4 below we give an overview of the number of 4* and 3* journals per ABS subject area.

Looking at 4* journals only, economics has 17 journals ranked 4*, while finance has four. In 3* economics has 48 journals listed, with finance having 25. Other disciplines have far fewer journals listed in these categories: in Operational Research for instance only one journal is ranked 4* and there are no 4* journals listed at all in Business Law. However, we cannot assume that fewer 4* journals make it more difficult to publish at that level. It is relative, and will also depend on the size of the global research community working in that area.

5.2 Indicators of resources and professional network

As indicators of resources available we have included the percentage of papers submitted in one subject area, the number of authors per submitted paper, and if the authors are from the same university.

Table 4 shows the topic area for the sampled papers. The topic areas are taken from the ABS subject list. The papers in the LBS sample are firmly focused around two main themes: Economics and Finance, with Organization Studies at second level. Only 8% of these submissions are classified as 'other' i.e. in an ABS topic where it was the only submission in the whole sample. The submissions in both the WBS and the Kingston samples on the other hand are more varied, with the most submissions outside finance and economics: their profiles focus on HRM and social science (WBS) and organisation and operational research areas (Kingston). Nearly 1 in 5 Kingston submissions are in the 'other' category meaning the only submission under a subject area, whereas WBS, like LBS, has only 8% of the outputs in 'other' areas. WBS has a number of areas of study (Business Law, Ethics, Information Management and Public Sector) in which there is only one submitting author, whereas LBS and Kingston have almost none of these.

Table 4: Number of 4* and 3* journals per subject area (absolute number) + Subject area of submitted papers by university (percentage)

| AREA | Total number of 4* journals by subject (ABS) | Total number of 3* journals by subject (ABS) | | WBS | Kingston | LBS |
|--------------------------|--|--|--|------------|------------|------------|
| (ABS areas) | | | | percentage | percentage | percentage |
| Accounting | 5 journals | 14 journals | | 0% | 0% | 2% |
| Business Ethics | 0 journals | 3 journals | | 4% | 0% | 0% |
| Business Law | 1 journal | 5 journals | | 6% | 0% | 0.5% |
| Economics | 17 journals | 48 journals | | 10% | 7% | 22% |
| Enterprise and SME | 2 journals | 4 journals | | 2% | 4% | 0% |
| Finance | 4 journals | 25 journals | | 2% | 0% | 33% |
| General management | 7 journals | 9 journals | | 2% | 4% | 6% |
| HRM-Employment | 6 journals | 9 journals | | 18% | 7% | 0% |
| Info Management | 4 journals | 24 journals | | 4% | 0% | 0% |
| Marketing | 6 journals | 12 journals | | 4% | 0% | 4% |
| Operational | 1 journal | 21 journals | | 10% | 19% | 2% |
| Org & Mgt science | 5 journals | 15 journals | | 0% | 0% | 4% |
| Organization Studies | 6 journals | 4 journals | | 2% | 15% | 10% |
| Public Sector | 3 journals | 10 journals | | 4% | 0% | 0% |
| Social Science | 18 journals | 25 journals | | 14% | 0% | 0% |
| Other | Diverse number | Diverse numbers | | 8% | 19% | 8% |
| Not on list | | | | 8% | 0% | 8% |
| Total | | | | 100% | 100% | 100% |
| <i>Absolute numbers:</i> | | | | 50 | 27 | 51 |

Sources: ABS, 2010; RAE, 2008

An intriguing issue seen here is that LBS's very successful subject areas of Economics and Finance are the fields of study of two separate RAE Units of Assessment: UoA 34 Economics and Econometrics (in which Kingston submitted, but LBS and WBS did not) and UoA 35 Accounting and Finance (in which none of these three business schools submitted) (RAE, undated). It is here that LBS parts company with WBS and Kingston in terms of its suitability as a comparator.

We argue that the concentration of subject areas can be seen as an indicator of support and resources and might indicate the existence of a subject specific research community which can support and peer-review publications. An institutional research profile which consists of a wide diversity of subject areas seems to suggest that researchers there might lack subject-informed support and professional critique as part of their professional development.

The same argument applies to the number of authors (Table 5). Submissions by two or three authors from the same institution suggest a research community centring on similar themes, which can provide support and critique. It might also indicate the size of the project: larger and longer research briefs are more likely to be taken on by teams, resulting in joint publications. Sole-authored papers might indicate less support in and/or outside one's own institution, sole researchers working on smaller studies in a vacuum. We intend to investigate this further.

The universities under discussion here vary on this indicator: the sample of the successful LBS scarcely includes any sole-authored papers, while this type comprises nearly one in three of WBS's sample. This would substantiate our argument of lack of support through joint authorship. The universities also vary on the indicator of whether the authors were at the same university (Table 6). LBS's co-authors mostly come from different institutions, suggesting that they are part of a national or international professional network which can provide support and resources (use of datasets, partnerships in funded research for instance). The two other institutions' researchers demonstrate fewer indications of a professional network outside their own institution.

Table 5: Number of authors per output (percentage)

| | WBS | Kingston | LBS |
|--------------------------|------|----------|------|
| 1 author | 30% | 19% | 6% |
| 2 authors | 34% | 44% | 65% |
| 3 authors | 26% | 44% | 24% |
| 4 or more authors | 10% | 4% | 8% |
| Total | 100% | 100% | 100% |
| <i>Absolute numbers:</i> | 50 | 27 | 51 |

Source: RAE 2008

Table 6: Are the joint authors from the same university? (percentage)

| | WBS | Kingston | LBS |
|--------------------------|------|----------|------|
| yes | 50% | 48% | 11% |
| no | 38% | 44% | 68% |
| do not know | 12% | 7% | 21% |
| Total | 100% | 100% | 100% |
| <i>Absolute numbers:</i> | 50 | 27 | 51 |

Source: RAE 2008

5.3 Indicators of methodology and method

In Table 7, we give an overview of the methodology of the sample of submitted papers. The methodology will be linked to the subject area of the submissions: we assume that finance and economics will have a larger proportion of quantitative methodology associated.

What the preliminary Table shows us is that methodology for the RAE 2008 does seem to 'count' at first glance: as this sample shows an extremely high prevalence of quantitative articles from LBS: 82%. (As we have seen, this university's sample includes 55% in the finance and economics fields.) This goes down to one in two submissions for Kingston and just over one in three submissions for WBS. Tellingly, LBS has no qualitative focused papers in our sample; other submissions were mixed in methodology (both qualitative and quantitative) but with the quantitative element the main focus of the submitted paper.

The submissions in the Kingston and (especially) WBS samples are much more diverse; indicating that variety for this exercise might not be a good thing at all. Several of the papers did not really classify as a quantitative or qualitative methodology, but were instead more an overview of 'state of the art' knowledge in a field (Literature focus) or another type of narrative focusing less overtly on the literature and more on discussion.

Table 7: Main methodology of outputs (percentages)

| | WBS | Kingston | LBS |
|--------------------------|-----------|-----------|-----------|
| quantitative | 58% | 52% | 82% |
| qualitative | 12% | 33% | 0% |
| mixed | 6% | 4% | 18% |
| Literature focus | 12% | 7% | 0% |
| narrative | 8% | 4% | 0% |
| no info | 4% | 0% | 0% |
| Total | 100% | 100% | 100% |
| <i>Absolute numbers:</i> | <i>50</i> | <i>27</i> | <i>17</i> |

Source: RAE 2008

The information on sources of data indicates whether the sampled outputs are based on primary, secondary data or theory based work (Table 8). Primary data research is very popular in the Kingston sample, whereas the WBS sample includes work based on primary and secondary data to an equal extent. There is an interesting prevalence of theory based work at LBS: more than one in three articles in our sample.

Table 9 illustrates the research techniques used; it shows the importance of theory-based quantitative papers in the LBS sample. Theory based work is the focus of the 4* journals in finance and economics, empirical work comes in second place. Kingston and WBS have a completely different research methods profile. No theoretical work is seen in these samples. Qualitative techniques such as interviews, focus groups (reported under qualitative mixed) and case studies are the most common techniques used. At WBS, the survey technique forms the basis of half the papers in the sample, either through secondary or primary analysis. In the WBS and Kingston samples the literature review or narrative features; quantitative research is present, but to a much smaller extent than in LBS.

Table 8: Sources of data in outputs (percentage)

| | WBS | Kingston | LBS |
|--------------------------|-----------|-----------|-----------|
| primary data | 40% | 63% | 19% |
| secondary data | 42% | 26% | 25% |
| no data | 16% | 11% | 38% |
| do not know | 2% | 0% | 18% |
| Total | 100% | 100% | 100% |
| <i>Absolute numbers:</i> | <i>50</i> | <i>27</i> | <i>51</i> |

Source: RAE 2008

Table 9: Research techniques used in outputs (percentage)

| | WBS | Kingston | LBS |
|---------------------------------------|------|----------|------|
| case study - interviews | 0% | 35% | 0% |
| case study- mixed qualitative methods | 0% | 4% | 0% |
| | WBS | Kingston | LBS |
| Interviews only | 4% | 4% | 0% |
| survey and interviews | 10% | 12% | 0% |
| survey | 12% | 0% | 0% |
| mixed qualitative | 4% | 8% | 0% |
| mixed quantitative | 4% | 4% | 25% |
| quantitative: secondary data | 36% | 0% | 0% |
| quantitative: empirical | 0% | 19% | 0% |
| quantitative: theory based | 0% | 0% | 42% |
| narrative-literature review | 16% | 12% | 8% |
| experiment | 6% | 0% | 8% |
| mixed quantitative and qualitative | 4% | 0% | 17% |
| no info | 4% | 4% | 0% |
| Total | 100% | 100% | 100% |
| <i>absolute numbers</i> | 50 | 26 | 12 |

Source: RAE 2008

6. Preliminary conclusions

Preliminary findings suggest that the RAE outputs sampled from the three business schools vary substantially in terms of topic area, indicators of prestige such as journal rankings and citations; indicators of resources and professional networks such as authorship; and indicators of methodology and method. The outputs of the most successful institution are more linked to the subjects of economics and finance with little activity in other areas. They are typically written by more than one author and focus on quantitative methodology, either empirically or theory based.

What does that mean for WBS and the next REF 2013? As these findings are preliminary, WBS needs to proceed with caution in acting on them at present. However, it is already becoming clear that they need to consider more traditional methods, especially within the quantitative paradigm. This may mean that subject areas that do not usually identify with quantitative techniques may need to try them, perhaps after focused training. The inclusion of bibliometrics (citation impact) is already established for the REF. WBS scored very low on this aspect in 2008. Its researchers will need to focus on the need to produce outputs that are not only of high quality but also of the necessary relevance to their peers.

This paper traces an early stage in literature review, sample selection and analysis which reveals both the relevance of the study and the need to re-focus with regard to the sample and the data emphasis. The literature review will also be increased in scope to include the discussion of methodology within the broader issues of academic research practice. Analysis is still to be done on linking the areas explored: for example, are the outputs with most authors also the most sophisticated in terms of methods and findings and are they the most highly cited?

In seeking recommendations leading to an improvement in WBS's performance in the REF, it is clear that although we have gained some insight into the differences between this institution's RAE 2008 outputs and those of better performing business schools, the future development of the project should focus more strongly on the comparability of institutions' subject areas in order to increase the relevance of differences in research methodologies.

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References

- ABS (2009) Journal Ratings, available at http://www.the-abs.org.uk/files/abs_web_subject.pdf, [last viewed 28.02.2010].
- Bryman, A. and Bell, E. (2007) *Business Research Methods* (2nd Edition), Oxford, Oxford University Press.
- Cassell, C., Symon, G. and Johnson, P. (2003), "Benchmarking Qualitative Research Methods in Management", ESRC-funded project H333250006.
- Cassell, C., Symon, G., Buehring, A. and Johnson, P. (2006), "The Role and Status of Qualitative Methods in Management Research: an Empirical Account", *Management Decision*, Vol. 44 No. 2, pp. 290-303.
- Cavanagh, R. and Reynolds, P. (2005) 'Ensuring Quality of Method in Quantitative Educational Research', Paper presented at the Australian Association for Research in Education 2005, Focus Conference, Cairns.
- Collingridge, DS, Gantt, E E (2008) *The Quality of Qualitative research*, *American Journal of Medical Quality*, Vol. 23, No. 5, 389-395.
- Daly, J, Willis, K, Small, R, Green, J, Welch, N, Kealy, M and Hughes, E (2007) 'A Hierarchy of Evidence for Assessing Qualitative Health Research', *Journal of Clinical Epidemiology*, Vol 60
- Dixon-Woods, M, Booth, A and Sutton, A.J. (2007) 'Synthesizing Qualitative Research: a Review of Published Reports' *Qualitative Research*, vol. 7(3) 375-422, SAGE Publications
- Ghobadian, A (2009) RAE 2008 – Lessons for Individuals the unit of Assessment, Presentation at Westminster Business School, 04.11.2009.
- HEFCE (2009) Research – REF – Bibliometrics, last updated 23.09.2009, available at: <http://www.hefce.ac.uk/research/ref/Biblio/>
- Lawler III, E.E. (1999) 'Challenging Traditional Research Assumptions' In Lawler III, E.E., Morman Jr, A.M., Mohrman, S., Ledford Jr, G.E., Cummings, T.G. and Associates (1999) *Doing Research that is Useful for Theory and Practice*, Oxford, Lexington, pp. 1-17.
- Lee, B (2006) The "Qualitative Inquiry in the Business and Management Field" symposium at the Second International Congress of Qualitative Inquiry, *Qualitative Research in Organizations and Management: An International Journal*, vol 1, issue 2
- Leech, N. (2007) 'Research and the "Inner Circle": The Need to Set Aside Counterproductive Language', *Educational Researcher*, Vol. 36, No. 4, pp. 200-2.
- Newman, M. (2010) 'Delay of up to two years planned to get to grips with impact measure', *Times Higher Education*, 14.01.2010, available at <http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=409991&c=2> [last viewed 28.02.2010].
- Norris, M. and Oppenheim, C. (2003) 'Citation Counts and the Research Assessment Exercise V: Archaeology and the 2001 RAE', *Journal of Documentation*, Vol. 59, No. 6. pp. 709-30.
- Oppenheim, C. (1996) 'Do Citations Count? Citation Indexing and the Research Assessment Exercise', Paper presented at the 19th Annual UKSG Conference, Keele, April 1996.
- Pratt, M.G. (2008) Qualitative Research in Top-Tier North American Journals - Fitting Oval Pegs Into Round Holes: Tensions in Evaluating and Publishing, *Organizational Research Methods* 2008; 11; 481
- RAE (undated) <http://www.rae.ac.uk> [last viewed 28.02.2010]
- Seale, C. (1999) 'Quality in Qualitative Research', *Qualitative Enquiry*, 5, pp 465-478.
- Silverman, (2006) 'What is Qualitative research?' available at URL: http://www.uk.sagepub.com/upm-data/11254_Silverman_02_pdf , [last viewed 25.02.2010]
- Smagorinsky, P. (2007) 'A Thick Description of Thick Description', *Educational Researcher*, Vol. 36, No. 4, pp. 199-200.