

FoR codes pendulum

Publishing choices within Australian research assessment

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This paper reports on an exploratory case study that considered the impacts of journal ranking and Fields of Research codes on the publishing decisions of Australian authors. The study also considered the level of alignment between authors' allocation of Fields of Research codes and the codes assigned to the journals in which they were published. The conclusion is reached that authors are still coming to an understanding of the impact of research assessment on their publishing choices and the process of scholarly communication within their discipline. Findings point to a number of concerns about the impact of both journal ranking and discipline-specific research codes.

Introduction

A number of countries have implemented frameworks for assessment of research productivity in their higher education sectors. These include the Performance-Based Research Fund in New Zealand and the United Kingdom's Research Assessment Exercise (soon to be superseded by the Research Excellence Framework). In Australia, the Australian Research Council (ARC) has developed Excellence in Research for Australia (ERA) as a key component of its drive to produce greater accountability in the Australian research environment.

Central to the ERA is the process of assessing the quality of research outputs using two independent but linked mechanisms. First, the ranking of scholarly journals into one of four tiers, with articles differentially 'rewarded' according to the tier assigned to the journal in which they are published. And second, the creation of eight disciplinary clusters, identified by two-digit Fields of Research (FoR) codes (derived from the Australian and New Zealand Standard Research Classification (ABS, 2008)). Each cluster is then subdivided into sub-disciplines identified by four-digits FoRs. These two mechanisms provide the framework for each journal article to be assessed in relation to quality and discipline, and their use is unique in the context of a national research assessment exercise.

Commentary on assessment methodology has speculated about the likely impact of journal ranking as a component of research assessment (Howard, 2008), and the effect of assigning journals to a hierarchy of 'merit' that rewards publication in journals deemed to be of high quality (Genoni & Haddow, 2009; Redden, 2008). Critics have argued that one impact of ranking will be to compel authors to target obsessively the comparatively small number of highly ranked journals without regard for their desire to direct articles to the journal and readership to which they are best suited; and that this will in turn have a detrimental impact upon more lowly ranked journals as their viability is threatened by the diminishing supply of papers (Cameron, 2005). In this regard some commentators indicate that journals with a national focus are particularly vulnerable, as has already been witnessed in the Australian context by the cessation of the journal *People and Place* (Lane, 2011).

It has also been argued that there may be adverse implications for the highly ranked journals, with editors and reviewers finding it difficult to manage the greater number of submitted papers (Genoni & Haddow, 2009). As a result it has been suggested that journal ranking could distort the process of formal scholarly communication that has evolved over several centuries. This may include cases where editors and

authors alike are enticed to manipulate the 'system' in order to maximise the rewards on offer (Cameron, 2005; Jasco, 2006; Cooper & Poletti, 2011), and to meet the changing demands of higher education institutions (Gye, 2009; Wright, Bennett & Blom, 2010). Other recent research has pointed to the disparity in the way in which the ERA ranking process has treated different disciplines, and it has been claimed that these inequitable outcomes may 'have a detrimental effect in disciplines that lack sufficient journals ranked as A*' (Vanclay, 2011, p. 273).

FoR codes

Attracting less attention within the ERA discourse is the impact of the FoR codes that are used to assign research outputs—including journal articles—to a particular subject area. FoR codes are allocated to both individual researchers and research outputs, with all outputs that constitute part of an ERA assessment being assigned at least one such code. As the ARC has explained, 'ERA is a disciplinary research assessment exercise. As such interdisciplinary research will be disaggregated to its discipline components' (Australian Research Council, 2008, p. 3).

There are, however, differences in the manner by which the FoR codes are assigned to different types of research output, and the method by which they are allocated to journal articles differs substantially from other outputs. Whereas FoRs for other outputs such as conference papers or book chapters are individually selected by authors and/or university research managers, journal articles are limited to those FoRs allocated to the journal in which they are published.

Three issues arise from this difference in method of FoR allocation. First, non-journal outputs can be allocated up to three FoR codes, in order to reflect their multidisciplinary or interdisciplinary elements. Most journal articles on the other hand can be allocated no more than the number of FoRs that have been applied to the journal in which they are published. The problems for journal articles in terms of reflecting their multidisciplinary or interdisciplinary components are apparent when it is considered that only 26 per cent of journals in the ERA list (of over 20,700) are allocated two FoR codes, and even fewer (6.4 per cent) are allocated three. There is some allowance for diverse subject coverage or multidisciplinary journals, in that these journals may be allocated a two-digit FoR code or given an multidisciplinary (MD) designation. For the

journals allocated a two-digit FoR code institutions are responsible for assigning up to 'three four-digit FoR codes from within the two-digit FoR code for that journal' (ARC, 2009, p.28). For journals with a MD allocation, institutions can again apply up to three FoR codes selected from any four-digit FoR. However, this degree of choice applies to comparatively few journals. Only a little over 10 per cent of journals have been given a two-digit FoR, and the MD designation has been applied to just 2.9 per cent of all journals.

Despite these attempts to address the 'issue' of multi- or interdisciplinary journals, it remains the case that most articles are dependent upon the FoR code(s) allocated to the journal in which they are published to accurately reflect their disciplinary focus. It is also the case that the majority of articles can receive no more than one FoR code, which has been determined not by authors or their institutions, but by the FoR allocated to the journal in which they are published. Given that non-journal outputs have up to three FoR codes, and that the stated purpose of the FoR codes is to reflect the subject focus of research, it is a nonsense to believe that a journal article will be any more focused on a single FoR than a book chapter or conference paper.

Second, it is apparent that if the FoR codes assigned to journal articles must be selected from the FoRs of the journal in which they are published, then accuracy at the article level will only be achieved if:

- The FoRs are allocated to journals accurately and consistently.
- Individual articles conform to the subject focus of a journal as it is expressed in the FoRs.

As will be examined in the research reported below, there are problems in both regards. These problems seemingly arise from the small number of FoRs allocated to most journals being insufficient to reflect their disciplinary breadth.

Third, as the ERA process involves allocating FoR codes to individual researchers as well as to their research outputs, there is likely to be pressure to align research and publishing in ways that support both personal ambitions and institutional priorities. As has been noted, 'under national assessment schemes, departments are required to develop areas of strength and show research themes' (Kandiko & Blackmore, 2009, p. 91). In the ERA the principal way in which an individual, research group or institution can demonstrate commitment to a research theme is to ensure that outputs are consistently aligned with the relevant FoR code(s). For non-journal outputs this can be achieved

through the process of FoR selection by authors and research managers, but for journal articles it can only be achieved by selecting a journal that has already been allocated the desired FoR code. This third issue is not directly addressed by this research and requires further investigation.

In order to understand the implications of the first two issues fully, it is necessary to explore the alignment between authors' perceptions of subject content of their article and the FoR codes assigned by the ERA to the publishing journal. The findings of this study will indicate whether the use of FoRs may have an impact upon discipline-based authoring and editing practices in ways similar to those that have been claimed for journal ranking, in particular the likelihood that they will influence the flow of articles to and from particular journals.

Approach to the study

This paper reports on an exploratory case study that considered the impacts of journal ranking and FoR codes on the publishing decisions of Australian authors, taking as its context the field of music education. The key areas of research interest were:

- The degree of alignment between author-allocated FoR codes and those allocated to the journals within which their work was published.
- Authors' awareness of journal ranking and FoR codes; and
- The extent to which authors believed these ERA mechanisms may influence future publishing decisions.

The case study focused on authors with recently published journal articles in a single discipline area. The chosen discipline was music education, which draws upon the disciplinary expertise of one of the researchers. Music education was also selected because of its trans-disciplinary nature; covering as it does both music and education, the discipline straddles Cluster Four, Social, Behavioural and Economic Sciences (SBE), and Cluster Two, Humanities and Creative Arts (HCA).

Cluster Four (SBE) incorporates Education, which includes the following four-digit FoRs:

- 1301: Education systems (including early childhood education, community, school and higher education),
- 1302: Curriculum and pedagogy (including pedagogy theory and development),
- 1303: Specialist studies in education (including special and teacher education),
- 1399: Other education.

Cluster Two (HCA) includes Studies in creative arts and writing. Within this is:

- 1904: Performing arts and creative writing (including music performance, composition and music therapy).

Music education is represented in the ERA journal list with fifteen journals, each of which had been allocated between one and three four-digit FoR codes. From these, a sample of five journals was selected for analysis based on the following criteria: Australian researchers were regularly published within the journal; representation of Australian and international journals; representation of a range of ERA journal rankings. Table 1 lists the journals included for analysis with their final ERA ranking, FoR code(s) and publisher.

It is notable that no single FoR code is common to all five titles. The journals are also treated with considerable difference in that the number of FoRs allocated ranges from one to three. These inconsistencies are puzzling given that, as the journals' websites indicate, all five titles claim to publish research in the same area of education and with very similar aims.

International Journal of Music Education (IJME):

'... enhances knowledge regarding the teaching and learning of music with a special interest toward an international constituency... (and) enhances the practice of music teaching and learning at all age levels...'

Table 1: Sample of music education journals

<i>Journal title</i>	<i>Final ERA ranking</i>	<i>FoR code/s</i>	<i>Publisher</i>
International Journal of Music Education (IJME)	A*	1302; 1303; 1904	SAGE
British Journal of Music Education (BJME)	A	1302; 1904	Cambridge
Research Studies in Music Education (RSME)	A	1399; 1904	SAGE
Australian Journal of Music Education (AJME)	B	1303; 1904	Australian Society for Music Education
Music Education Research (MER)	B	1302	Routledge

British Journal of Music Education (BJME):

'... to provide clear, stimulating and readable accounts of contemporary research in music education worldwide...'

Research Studies in Music Education (RSME)

'... promotes the dissemination and discussion of high quality research in music and music education'.

Australian Journal of Music Education (AJME)

'... to provide clear, stimulating and readable accounts of current issues in music education'.

Music Education Research (MER)

'... provides an international forum for cross-cultural investigations and discussions relating to all areas of music education'.

A search of papers published in the five journals between 2007 and May 2010 revealed 44 articles authored or co-authored by Australian researchers. This study therefore covers the period from the initial deliberations regarding the ranking of journals in Australia, up until the commencement of the study. The organisational affiliation and contact details for the authors were drawn from information provided with the journal article. Four papers were excluded from the study as the authors were no longer working in higher education, and two additional papers were excluded because the authors were already included in the sample. Authors of the remaining 38 papers were invited to complete an email survey (see Appendix 1). In the case of co-authored papers, the invitation was issued to the first-listed Australian author. The response rate was 57.9 per cent, with 22 surveys returned. Respondents returned completed surveys to a third-party email address to ensure anonymity, and they are identified here by their respondent number (R1-R22).

The survey elicited both quantitative and qualitative data. Quantitative data were collected to examine the difference between the FoR codes allocated to journals within ERA and the FoRs assigned by author-respondents to their own articles. Scale and dichotomous responses were gathered for respondents' level of awareness of ERA journal ranking and FoRs, and for whether these mechanisms influenced the placement of journal articles. Two open-ended questions gathered qualitative data. The first related to the choice of journal and the second elicited general comments about ERA.

Analysis of quantitative data was undertaken using simple coding and the software program SPSSv18 to calculate descriptive statistics. Qualitative material was independently analysed by all three researchers and the results were compared using Glaser's constant comparative method of analysis (Flick, 2002) to determine a final coding set.

Results and discussion

Allocation of FoR codes by authors

In order to measure the degree of alignment between FoR codes allocated to the music education journals and the articles they contain, authors were asked to allocate up to three FoRs to their individual journal articles, and to give each FoR a percentage. Authors were provided with the details of thirteen FoRs from Clusters Two and Four, and they were also provided with a link to the full ANZSRC list should they wish to indicate FoRs outside of those included in the survey instrument. The results are presented in Table 2 and show the authors' allocations of FoRs as a percentage of all FoR allocations to articles in the same journal. Bolded numbers indicate where each author's FoR allocation aligns with that of the journal.

As Table 2 indicates, the authors selected a total of nine different FoRs to describe their articles as com-

Table 2: FoR allocation by authors (%)

<i>Journal</i>	<i>Authors (n)</i>	<i>1301</i>	<i>1302</i>	<i>1303</i>	<i>1399</i>	<i>1701</i>	<i>1702</i>	<i>1904</i>	<i>2002</i>	<i>Other</i>
IJME	9	2.2	17.8	26.7	17.8	6.7	0	24.4	0	4.4
BJME	3	16.7	10	40	0	0	0	33.3	0	0
RSME	1	0	40	0	0	0	0	60	0	0
AJME	8	0	18.8	40	0	13.8	2.5	18.8	6.3	0
MER	1	0	35	0	0	0	0	35	30	0

Table 3: Alignment of author FoR allocations with FoRs allocated within ERA

Journal	FoR alignment (%)
IJME	68.9
BJME	43.3
RSME	60.0
AJME	58.8
MER	35.0
Overall alignment	53.2

pared to the four FoRs allocated to the journals within ERA. Table 3 summarises the percentage of alignment between author allocations and the FoR codes allocated within ERA for each of the five journals.

In all, 46.8 per cent of the allocations made by authors did not align with the FoR codes applied to these journals. Understandably the percentage of compliance is highest (68.9 per cent) within the *International Journal of Music Education*, the only journal with three FoRs. Calculated across the other four journals, the percentage of FoRs allocated by authors that aligns with the journals' FoRs declines to 49.2 per cent. When examining each author's allocation of FoRs to their article, twelve (54.5 per cent) assigned the highest or equal highest percentage to FoRs outside those assigned to the journal within ERA. This suggests a marked mismatch between authors' perceptions of the subject of their articles, and the ERA discipline assessment of the journals in which they are published.

This mismatch is hardly surprising given the breadth of the five journals, as described on their websites. Disciplines indicated as falling within the journals' scope include: special needs education; technology; psychology; policy; curriculum design; assessment; socio-cultural issues; sociology; philosophy; comparative studies; teacher education; and theoretical/methodological concerns. Few of these areas can be adequately covered within even the maximum allocation of three FoRs, let alone the one or two that are applied to most of the journals.

Awareness of journal ranking and implications for publishing

The survey included two closed questions asking respondents to nominate their level of awareness ('very aware', 'somewhat aware', or 'very unaware') of the ERA journal ranking process and its implications for research publishing. A follow-up question asked

whether journal rankings had been 'taken into consideration when placing [their] article' ('yes' or 'no'). Of the 22 respondents, twelve (54.5 per cent) were 'very aware' and seven (31.8 per cent) 'somewhat aware'. However, only seven (31.8 per cent) reported that journal ranking was taken into consideration when placing their article. As some of the papers (n=4) date from 2007 it is not unexpected that there was a lower awareness of journal ranking at that time than was the case following the publication in 2008 of the first ranking outcomes.

Respondents also provided qualitative comments relating to awareness of journal rankings when placing their article. Only three respondents specifically identified journal rankings to indicate why they had selected a particular journal. One (R3) noted that the journal 'was rated A* when we submitted it', but they seem to have been undermined by the provisional nature of the rankings, noting that their selected journal 'Changed to A in [the] final rankings'. Another respondent (R9) noted that their chosen title (*Australian Journal of Music Education*) is a 'well-respected B grade journal', a comment that acknowledges the considerable standing in which at least some 'B' journals are held. This is particularly relevant in that the journal referred to is the foremost national Australian title in the field of music education, highly valued for its Australian—if not its international—reputation. Issues of journal quality and reputation were also raised in responses that did not refer specifically to the ERA rankings, with one respondent noting that the choice of journal (*Music Education Research*) had been determined by the 'Status and quality of the publication'. (R11)

In response to the final open-ended question inviting authors to 'comment further about any aspect of the ERA framework', one respondent indicated concern regarding the value of ranking, and pointed to a particular example of a disputed ranking.

I am unconvinced about the ranking process for journals which does not fully represent the standing of journals or the difficulty in being accepted. I find it strange that IJME is ranked above MER. (R9)

Another respondent pointed to two related issues with the rankings: that 'niche' journals of high quality and reputation in a specific field may find it difficult to compete with more general journals, and that the fate of the highly regarded national journals is uncertain within a system that depends upon international benchmarks.

In my area of specialism, not all music education journals are ranked. Some journals for example International Journal of Community Music is the big community journal yet it is only ranked 'C', rather disappointing like a good many others. The AJME is also just ranked B. This is clearly our national Australian journal in music education research and has an international peer review panel. It should be ranked A. So I am not sure how these are listed/calculated to be on the ERA. (R22)

Awareness of FoR codes

Respondents were also requested to report their level of awareness ('very aware', 'somewhat aware', or 'very unaware') of FoR codes and their implications for research publishing. The results indicate a lower level of 'awareness' of FoR codes than journal ranking, with half (50 per cent) of the sample indicating they were 'somewhat aware', and another 31.8 per cent (compared to 54.5 per cent for journal ranking) considering themselves 'very aware' of FoR codes and their implications. However, only three respondents (13.6 per cent) indicated they were aware of the FoRs allocated to the journal at the time of placing the papers and only two of these took FoRs into consideration.

Given the time elapsing between submission and publication of papers, and the time taken to finalise the allocation of FoRs to journals, these results are not surprising. It would, however, be interesting to revisit this line of research as the ERA becomes an established part of the Australian research environment. A comment from one respondent indicates the extent to which some researchers are only now coming to understand the disciplinary focus of the ERA: 'FoR is a term that I didn't know existed. I'm guessing it stands for field of research? I have just learned something new'. (R17)

Selection of journals by authors

When respondents were asked to indicate the reason why they selected the journal in which their article was published, they raised a number of issues including audience, reputation and journal focus.

For most of the respondents whose articles appeared in the *Australian Journal of Music Education* (AJME), it is apparent that the local focus of the journal's research and readership were important. Five of the eight authors who had published in AJME remarked upon this issue in some way.

Local nature of research and strong educational focus. (R7)

Because of its relevance in the Australian context to music education and also the audience that I wanted to reach with the paper. (R8)

. . . relevance to the Australian context. (R14)

The journal was a reliable Australian music education journal. (R15)

This was a . . . study that addressed issues about music education and technology in Australia and an Australian journal was an appropriate audience. (R16)

These responses—particularly those remarking specifically on the importance of an Australian readership—suggest that authors will continue to seek publication in Australian journals irrespective of their ranking. This preference for Australian journals could also demonstrate a belief that international journals may be reluctant to publish articles with an Australian focus. A further consideration is what might be seen as a related advantage of local journals, in that they are sometimes perceived (rightly or wrongly) as less competitive than their international equivalents: 'As an early career researcher it was going to be an easier journal to get an acceptance . . .' (R14). As this comment implies, it is likely that early career academics will target journals using criteria different from those of established authors. This might include selecting lower-ranked journals on the basis of perceived acceptance rates; publication timeframes; and a lack of confidence to target more highly ranked journals.

There were, however, also responses indicating that journal choice had been driven by a desire to expose research to an international audience. For one respondent this was described as simply a desire to 'present the article to an international journal' (R1), but others indicated that the issue of 'internationalism' was related to perceptions of quality and/or prestige:

Because it was a truly international journal in music education with a large readership and impact. (R12)

International standing. (R18)

It [IJME] was divided into a pure research area and a practice area. My focus is on the practice of singing performance and teaching so it made sense to choose IJME first. I have also submitted and had accepted articles in RSME and BJME. I consider

these three journals to be the top in the field and the most desirable to publish in. (R13)

Interestingly, this final response is one of only three that referred specifically to the particular focus of the selected journal. Two other respondents, who had also published in the same journal (IJME), made similar comments, noting that it 'has the strongest interest in music practice issues' (R6); and, 'I chose IJME because of its focus on practice' (R20). IJME incorporates two distinct streams ('research' and 'practice'), each of which has its own editorial board. Both streams have been assigned the same FoRs.

The influence of ERA journal ranking and FoR allocation on future publishing choices

Several respondents indicated that their future choice of journals would be dictated by the ERA allocation of rank and/or FoRs, even if they hadn't been a consideration at the time the article in question had been submitted.

A respondent who was positive about the benefits of journal ranking, nonetheless described problems with the process that resulted in anomalies in the allocation of both tiers and FoRs.

I think the notion of ranking journals . . . is a good thing. However, from my understanding, very little notice has been taken of responses back to the ERA 'people' in relation to FoR codes, and even the existence of some journals. Some journals in music education (MER and Psychology of Music for example) are not even listed under the 1904 ['Performing arts and creative writing'] code! In music and arts education there are other journals which have been listed as A journals, and they don't even exist, and international journals with really fantastic boards, excellent articles and huge impact, which have been ranked as C! Quite ridiculous. (R12)

The mention of psychology is relevant given that *Research Studies in Music Education* (RSME) and *Psychology of Music* have since 2008 been sold together as a joint institutional subscription, on the basis that, 'as the journals are linked in subject matter the content of both are relevant to music psychologists and music educators alike' (Research Studies in Music Education, 2010). Similarly, the scope of MER extends to 'philosophy, sociology, psychology and comparative studies' (Music Education Research, 2010). Despite these the explicit links between these journals and psychology, borne out by both author FoR allocations and comments, none of the music education journals include a psychology-based FoR code.

Two respondents specifically commented on the influence of the ERA mechanisms on their future publishing activities:

I did not consider ERA at the time of submission, but do so now for pretty much everything I write and try to publish. [This is] thanks to numerous emails and talks from the faculty head of research. (R20)

. . . from now on I will be considering journal rankings and FoR assignment when submitting journal articles for publication. (R2)

Further evidence of the strategic approach some authors are taking to the ERA came from another respondent who made a similar point about the increased flow of articles to an elite group of journals, noting that it was linked to the FoR codes as well as the rankings.

I have done a study of all ERA ranked journals into which I publish and included this list in my performance management. All of these are 13, 1301, 1302, 1303 – and one 1904. The pressure on these journals will increase and competition for acceptance shall likewise increase. (R14)

This same respondent also expressed concern that the comparatively low ranking of Australian journals may disadvantage Australian researchers and research: 'The placement of AJME as a B rank will seriously disadvantage early career academics and place the Australian context to the periphery'. (R14)

Acknowledging the influence of the journal rankings, one respondent argued that the ERA process may lead to a distortion of established (and desirable) patterns of scholarly publishing as journal choice is increasingly determined by rankings rather than the need to reach the most appropriate readership.

I became aware of ERA journal rankings after I submitted this article and [this] certainly had an effect on where I submitted my next two articles. There are some journals in which I would probably like to submit work because they would have a greater dissemination to teachers and performers in my area of research, but I doubt I will bother submitting because either they don't appear on the ERA rankings or they have a low ranking. Eventually if all academics take this stance it will definitely advantage the big already successful journals against the smaller journals that might have one editor, no staff and yet are widely read by the people in the field who matter. . . . in some aspects it is the ERA framework that is causing this to happen. (R13)

The concern about the influence of journals rankings and FoRs was not, however, universal. As one

respondent indicated, he will continue to publish for a preferred audience rather than be dictated to by the vagaries of research assessment:

For me, the most important issue was who I wanted to reach with the message contained within the article. I didn't think about FoR codes because ultimately, the ERA doesn't determine who is interested and perhaps wants/ needs to know about the issues discussed in the paper. (R8)

Discussion

The research reported above indicates there may be problems associated with the current method of allocating FoR codes to journal articles. A number of respondents raised issues that arise from the imposition of FoRs based on their allocation to journals rather than to articles, and the inability of FoRs to reflect the complex reality of the multidisciplinary or interdisciplinary research that prevails in the humanities.

The evidence suggests that authors are only just beginning to fully comprehend the impact of the ERA mechanisms (both journal rankings and FoR codes) on their publishing choices and career progression. They are realising that both rankings and FoR codes will create pressure to publish in a small number of journals that are appropriately approved and categorised. Authors are also beginning to understand the downstream impacts that may result, not only for their community of authors, but for journals, readers and disciplines. The data reported here support the argument made by other commentators (Cooper & Poletti, 2011; Lamp, 2009) that there is the potential for the key ERA mechanisms to disrupt the healthy exchange of research publishing. Whereas disciplinary communication has previously depended on authors carefully selecting journals because of the desire to reach a particular audience within complex disciplinary and interdisciplinary networks, in future they may be impelled to choose certain journals by the imposition of a mechanistic formula that is insensitive to the needs of the authors, readers and disciplines.

Research assessment in Australia is still in its infancy, and the evidence collected in this research suggests that authors will come to fully understand the impacts of the ERA progressively. In the initial stage this is likely to be a realisation of the personal impact, as authors are allocated or select their personal FoRs and review the results of the journal ranking process in their own fields of research. Irrespective of their personal opin-

ions on the research assessment mechanisms, individuals will realise that—unless they are to take a cavalier approach to their career progression—the results will inevitably shape their future publishing choices.

A second level of impact will be encountered as universities adjust their incentives and rewards to the ERA drivers. The effect of journal ranking will be to encourage institutions to target research funding in support of outputs destined for suitably ranked journals, and to apply the same measure in the recruitment and promotion of staff (Mather, 2011). The use of discipline-based assessment is highly likely to see institutions supporting research aligned with particular FoR codes that are believed to attract government funding, and research groups and individuals will in turn be required to focus publishing on those journals that have been allocated the 'appropriate' FoRs.

A third level of impact will be felt by the disciplines as they strive to adjust their channels of formal communication to cope with the highly managed research environment. As has been noted the ranking of journals is likely to skew submissions in favour of highly ranked journals and in the process may well threaten the viability of journals that fall into the B and C tiers. Not only authors, but editors and referees will find little value in being associated with lower-ranked titles. And authors and editors alike will also feel the impact of the FoRs as journals that once encouraged and attracted multidisciplinary contributions find that contributed articles are increasingly tailored to the narrow range of the allocated FoRs.

It is also likely that Australian journals with a regional focus will be particularly susceptible. As has been discussed elsewhere (Genoni & Haddow, 2009) the definitions given to each of the journal ranking tiers are expressed in such a way that they disadvantage national or regional journals. This occurs because whereas the definition for tier A emphasises 'real engagement with the global research community', the tier B definition focuses on 'regional journals with high acceptance rates'. The likely effect of suggesting tier B as the 'default' rank for national and regional journals is supported by respondents' comments on the *Australian Journal of Music Education*.

It is also the case that whereas international journals relying on a much broader contributor base will be largely unaffected by a regional assessment scheme such as the ERA, journals with a national or regional focus and drawing the majority of their contributions from a pool of Australian authors may find their oper-

ating environment greatly altered. These authors will either be forced to adjust their research to make it more internationally focused, or to relentlessly target the small number of Australian journals that have fared well in ERA, regardless of the appropriateness of the editorial policy or readership. In either case the circumstances bode ill for Australian journals that, irrespective of their importance to national scholarship, have been found wanting when exposed to an assessment regime that relies upon standards of international quality.

Conclusion

The title of this article, 'FoR codes pendulum', is obviously a pun on Foucault's pendulum, the name given to the device deployed by French physicist Leon Foucault in the mid-nineteenth century to demonstrate the rotation of the earth on its axis. The point of Foucault's pendulum was that it made possible the proof of a phenomenon that had hitherto been deduced by observation and inference. In this, Foucault and his pendulum have something in common with the attempt to assess the nation's research performance. That research occurs in Australia is known, and that its impact is beneficial is understood. For those with an instrumentalist and bureaucratic bent, however, it is a phenomenon that requires proof. The productivity of the system must be measured, its components labelled and ranked, the rewards targeted.

At this point Foucault and the FoR codes part company. For whereas Foucault's pendulum was an elegant solution that stunned scholars with its simplicity, the current use of the FoR codes are part of a complex empiricism targeted at a phenomenon—research quality and impact—that is intractably ill-suited to measurement. And while Foucault's pendulum could never have an impact on the phenomenon it so convincingly demonstrated, the FoR codes may well influence—and potentially do harm—to the very system they are intended to measure.

The ERA mechanism that has caused most alarm to date is journal ranking with its reliance on constructed hierarchies of merit. From this exploratory study it is also apparent, however, that the artifice of categorising journal articles by linking them to discipline codes that fail to express the complexity and diversity of humanities scholarship will be to the detriment of healthy research and publishing cultures.

At the time of writing the ARC has requested input into a revision of both the journal rankings and the FoR codes allocated to journals and other outputs. It is important for future confidence in the research assessment process that as a result of the review a means is found for expressing the complexity of humanities scholarship.

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Journals used in the study

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Appendix 1: Survey

1. Please allocate a percentage to up to **three (3)** FoR codes that you believe best describe your article. The total percentage should add up to 100.

FoR Codes		%
Education		
1301	Education Systems	0
1302	Curriculum and Pedagogy	0
1303	Specialist Studies in Education	0
1399	Other Education	0
Studies in Human Society		
1605	Policy and Administration (includes education policy)	0
1608	Sociology (includes sociology of education)	0
Psychology and Cognitive Sciences		
1701	Psychology (included educational psychology)	0
1702	Cognitive Sciences	0
Studies in Creative Arts and Writing		
1902	Film, Television and Digital Media	0
1904	Performing Arts and Creative Writing	0
Language, Communication and Culture		
2001	Communication and Media Studies	0
2002	Cultural Studies	0
Philosophy and Religious Studies		
2202	History and Philosophy of Specific Fields	0

Other FoR(s) and %

All FoR codes can be viewed at:

<http://www.abs.gov.au/ausstats/abs@.nsf/0/6BB427AB9696C225CA2574180004463E?opendocument>

2. Did you consider placing your article in other journals?

Yes No

If Yes:

2.1 Which journal/s?

2.2 Why did you ultimately choose this journal?

3. How would you describe your level of awareness of the ERA journal ranking process and its implications for research publishing?

Very aware Somewhat aware Very unaware

4. Did you take the ERA journal ranking into consideration when placing this article?

Yes No

5. How would you describe your level of awareness of the FoR codes and their implications for research publishing?

Very aware Somewhat aware Very unaware

6. Were you aware of the FoR code/s assigned to the journal when placing this article?

Yes No

If Yes:

6.1 Did you take the FoR codes into consideration when placing the article?

Yes No

7. Please feel free to comment further about any aspect of the ERA framework.

Thank you again for your input. We very much appreciate you being involved with this study.