Working Party on Impact/Quality Weighting of Publications

Preliminary Report of Initial Discussions

This working party was established to consider whether the calculation of research quantum funding should be amended to weight journal publications according to their impact and/or quality and, if so, to recommend appropriate mechanisms for implementing such an amendment. Recognising that the modification of a budget component distributing several million dollars to Faculties is a matter of considerable financial importance, the working party believe this matter warrants broad discussion within the academic community. Accordingly, having now met twice, we present this preliminary report to the Research Committee, to summarise our initial thoughts and to invite early comments and suggestions. Several different issues are delineated, and our developing views concerning each matter briefly are outlined.

**Issue One: Should the research quantum weight journal publications by impact/quality?**

Considerable apprehension was expressed by members of the working party concerning the prospect of amending the present system in this manner, for a number of reasons that included the following:

- There are greater inequities within the present system than those resulting from the failure to recognise variations in impact/quality. Most notable among these is the failure to adjust for discipline differences in average numbers of publication.

- The process of collecting and auditing publications already is time consuming and complex. It would seem undesirable to make it more onerous to administer, or less transparent to the academic community.

- Many Departments might consider that those working within a discipline are best placed to judge the most appropriate publication outlet for their research products, and may resist external identification of "appropriate" journals.

Despite this apprehension, and these shared reservations, discussion within the working party led to the conclusion that the arguments in support of introducing an impact/quality modifier within the C1 component of the publication collection are sufficiently strong to warrant the development, and formal appraisal, of such an innovation. The observations identified below were among those which motivated this conclusion:

- A University's ethos is evidenced more clearly by its actions than by its rhetoric, and UWA's laudable stance as an institution which values and supports high quality research activities with international impact is undermined by our present failure to identify and differentially reward such research within our budget process.

- The time and effort that a staff member must devote to publishing within high impact/quality international journals, commonly characterised by high rejection rates and insistence on numerous revisions, typically will greatly exceed that required to publish within lower impact journals. It is inequitable to treat two forms of publication activity which involve dramatically different workloads as equivalent.

- Appropriate staff development should encourage all academics to construct research programs which maximise these individuals' impact upon their fields of study. The present system motivates Departments to
adopt reward contingencies based upon number of research papers, regardless of their quality or probable impact. Junior academics, often confronted by job insecurity, consequently may sacrifice the establishment of high quality research programs capable of sustaining relatively small numbers of high impact/quality publications, in favour of whatever opportunistic publication strategies gain them the greatest volume of research papers in the short-term. A system that encourages this approach is likely to compromise the prospect of our junior academic colleagues realizing their full research potential.

On the basis of these considerations, the working party reached the conclusion that an attempt should be made to incorporate an impact/quality weighting into the C1 component of the publication collection. Nevertheless, we believe the revision should meet the following criteria:

- The revision should not significantly increase the Departmental workload involved in the annual submission of publication information.
- The revision should not significantly increase the workload of the academic committee that audits Departmental submissions.
- Weighting factors should function in a fully transparent manner, enabling Departments and individual academic staff to fully appreciate the impact of their decisions concerning publication practices.
- The initial establishment of weightings should be guided by consultation with discipline experts through, once in place, the revised system should function in a manner that does not invite or require annual confrontation and dispute.

**Issue Two: What should a journal weighting factor be designed to weight?**

The working party discussed whether it would be more appropriate to assign weights according to journal characteristics, or according to the characteristics of individual research articles. For a variety of compelling reasons, including those summarised below, it is our view that the former approach would be preferable.

- Judgements concerning journal characteristics can be guided by a range of objective information (such as editorial process, rejection rates, etc), whereas judgements concerning recently published papers will likely be more subjective and less transparent.
- Relatedly, the academic significance of journals can be assessed on the basis of accumulated historical data concerning those publications, whereas the academic significance of an individual research article often can be determined only several years after its publication.
- The increased annual workload required to assess individual research articles would be excessive. Classification of journals would be less demanding in terms of time, and may require updating only every few years.
- Classification of journals likely would be taken less personally than would the classification of individual research articles, reducing the consequent probability of emotive appeals and disputes.

The working party spent quite some time discussing the particular characteristic(s) of journals which should be determine their weightings. It is our view that the research missions of UWA Departments normally should place central emphasis upon producing high quality research publications that achieve a high level of international impact. Consequently, we presently lean towards the view that the default position, which should apply to virtually all Departments, should be to assign weights on the basis of journals' international research impact. Among
our reasons for favouring the appraisal of journal impact, rather than proposing the more difficult appraisal of manuscript quality, are the following:

• At an aggregate level, there is likely to be a high correlation between journal impact and manuscript quality, as high impact journal attract more submissions, have consequently higher rejection rates, and so are likely to retain and publish higher quality manuscripts.

• High journal impact is not simply an indirect index of manuscript quality, but is beneficial to the University in its own right. Though two manuscripts may be of equivalent "quality", the one which appears in the higher impact journal is likely to do more for the University’s research profile than is the one appearing in the low impact journal.

• The task of publishing in high impact journals requires substantially more time and effort than does the task of publishing in low impact journals, and so it is appropriate to provide incentives to motivate the former approach. It is less evident that there is a need to provide additional incentives to motivate academics to implement higher quality research programs, or to produce high quality research manuscripts, as high quality research generally will be easier to publish (in higher impact journals), and hence will more readily gain access to the existing rewards provided within the system.

While it is our view that most UWA Departments should strive to maintain high quality research programs with maximal international research impact, we do recognise the possibility that a small number of Departments, because of the particular nature of their disciplines, might better contribute to the realisation of the University’s research mission by sustaining high quality research programs with specific rational foci. Therefore, we are of the opinion that any Department should be permitted to submit, to the Research Committee, a formal case for pursuing such an alternative publication strategy. On occasions (perhaps after consultation with an independent expert, such as the external member of the Department’s most recent review panel), the Research Committee may endorse the claim that a Department’s proposed alternative publication strategy would indeed contribute to the University’s research mission better than would the pursuit of international research impact. If so, then the journal weights applying to that Department’s publications should reflect journals’ capacities to fulfil the goals associated with this publication strategy.

Whether journals are classified according to their international research impact, as we expect to be the norm, or according to the degree to which they support the realisation of an alternative endorsed publication strategy, the working party considers it to be essential that journal classification be handled on a discipline by discipline basis. Given the many important differences across disciplines in terms of publication characteristics, we do not believe that any general formula for weighting journals could apply equitably across Departments. Citation rates, for example, may be useful indicators of journal impact within some disciplines, but are not available for journals within many discipline areas. Furthermore, due to discipline-related differences in referencing practices, the average citation rates of publications vary dramatically across disciplines. Such observations led us to the conclusion that the journal classification exercise should involve academic judgements guided by discipline-specific expertise.

**Issue Three: Through what process should journals be classified?**

In general, therefore, we favour the idea that the journal classification process should draw upon discipline experts to identify a subset of journals, relevant to each Department, which will receive a higher than standard weighting within the research quantum calculation.
Though, as indicated earlier, we think it appropriate that Departments themselves should be permitted to argue the case for individual research missions that do not prioritise international research impact, we hold the view that the classification of journals should be guided by expertise external to the Departments affected by these judgements. Specific methods of deriving journal classifications still are under discussion within the working party. One option would be to have the classification of journals, for each Department, handled by six external academics (perhaps two each from Australia, North America, and Europe), who possibly could be drawn at random from a larger set of candidate assessors nominated by Departments. Another option would be to circulate a questionnaire more broadly around a greater number of external academics within the discipline. Either of these options could provide a classification of journals that would require updating only every three years or so. A third possibility, which we believe offers a number of advantages, would be to have the updating of journal classifications for each Department handled as a routine component of the Departmental review process, guided by recommendations made by the review panel.

These options require further discussion before the working party will be in a position to offer considered recommendations. Our thinking at present, however, is that an assessor may receive a set of journal titles, assembled for the Department within his/her discipline, which includes all the journals within which that Department has published over the preceding five years, supplemented by a dozen or so journals that HoD suggests might be targeted in the future. Together with this list, assessors would receive an outline of the desired journal characteristics, the default being “high international research impact” (though, as indicated earlier, it is possible that an approved alternative set of journal characteristics may be specified for an individual Department). The assessor then would indicate which of these journals s/he judges to be among a specified top percentage (e.g., 25% - 50%), with respect to those desired characteristics, within that discipline. The assessor may also add to the list any other journals which cover similar topics and are considered to be among this specified top percentage. On the basis of composite ratings, journals reliably classed as being among this set of top ranking publications could be conveyed to Departments, and research articles appearing within these journals could receive a higher weighting within the research quantum calculation.

**Issue Four: How should weights be applied within the journal collection?**

The working party discussed a range of possible ways in which journal weights might be incorporated into the system. One view was that the classification of journals could guide the identification of strong contenders for one or more “research award(s)”. Many variants on this approach would be possible. For example, there could be a single University award or one per Faculty, and awards could go either to Departments, to individual researchers, or to both. We see merit in this general idea, and we expect to develop it further. However, we think it unlikely that this approach alone would represent a sufficient method of indexing variations in Departments’ international research impact.

Another suggestion was that each Department might nominate a fixed proportion of their journal publications (e.g., 40%), to be employed in the calculation of an impact weight, which then would modify the entire C1 component of the collection. This would encourage Departments to publish in volume, but to ensure that a significant proportion of that volume appears in high impact outlets. A weakness of this approach, however, is that such a system could fail to discriminate some Departments which differ markedly in their proportions of high ranked publications. For example, the Department with 50 publications, of which 40%