

## Research Active at UWA

### A discussion paper prepared for the Senior Deputy Vice-Chancellor

#### On behalf of the Research Committee

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The University of Western Australia wishes to clarify what it means for staff to be classified as *research active*. There are four reasons for this:

1. The number of *research active* staff is reported to the Commonwealth Government and used as a denominator in determining the overall research performance of a University. This is likely to impact on the flow of funds to each University.
2. UWA has a very attractive, but ultimately unsustainable, Study Leave arrangement. Currently, all Academic Staff are entitled to apply for, and are usually granted, periods of study leave (mostly for research purposes).
3. Demonstrated research activeness is a condition for undertaking the role of “primary supervisor”, that is a supervisor with a 50% or more role in directing the research training of our HDR students. The primary supervisor may not be the coordinating supervisor in the case when the primary supervisor is not a UWA staff member (for example, external supervision by CSIRO staff).
4. As the University aspires to international excellence in research, and aims to achieve Top 100 status on the basis of its research output, an appropriate definition of *research active* is necessary for performance management and promotions.

In response to a request from the Senior Deputy Vice-Chancellor for Faculty definitions of *research active*, and in recognition of the different modes of research across faculties and across academic levels, a number of responses were received. A wide variety of *research active* definitions were proposed.

The purpose of this paper is to propose a framework in which Faculties can review their definitions of *research active* for study leave entitlements and promotions, within the context of some generally accepted principles. Study leave may be available for teaching or other purposes, but this paper will focus only on those aspects of Study Leave that relate to research activities. This paper seeks to clarify the status of *research active*, which would give a staff member a prima facie case for applying for a period of study leave for research purposes. However, the Senior Deputy Vice-Chancellor, on advice from a Faculty Dean, may approve research-based study leave for some staff not meeting this definition, where a case for growing a Faculty’s research profile has been made. The paper also seeks to provide guidelines for the levels of research activity required for promotion applications based on research.

#### Eligibility

- Only staff who are on an academic appointment at Level B or above will be evaluated for *research active* status. Excluded from the evaluation are those who are currently enrolled in a higher degree by research or who are currently employed on a fixed-term contract for a Senior Management appointment. Exclusions for other reasons may be made from time to

time on the advice of the Senior Deputy Vice-Chancellor. Early Career Researchers would be expected to meet these definitions after a five-year honeymoon period. Professional staff who meet the required levels of *research active* may be deemed eligible to apply for some of the benefits associated with that status. Part-time staff will be evaluated on a pro-rata basis determined by their fractional appointment.

#### Minimum Level of Research Active

- Staff meeting the minimum specified levels would be eligible to apply for research study leave and would be eligible to act as a primary supervisor for HDR students.
- The total number of staff achieving the Minimum Level of Research Active would be returned to the Commonwealth Government. In addition, this number of Minimum Research Active staff would apply at each Faculty level in determining average Faculty performance levels.

#### Aspirational Level of Research Active

- Staff meeting the aspirational levels would have a prima facie case for promotion on the basis of their research outputs. It is thus clear that whatever definition of *research active* is adopted, it must take research quality into account.

#### Research Active Targets should be Appropriate to Academic Level

- The definitions of *research active* should be appropriate to the academic level of appointment – Level B staff should not be expected to achieve the same levels of output or other research activity as Level E staff.

#### Research Active Targets should be Appropriate to the Discipline

- If a common framework is used to measure *research active*, then the target levels should be appropriate to the broad discipline groups.

#### Background

The initial call for Faculty definitions of *research active* resulted in a wide variety of responses.

**ALVA** decided to apply the University Socratic Index averages at each academic level, determined over a three-year period. Staff undertaking a PhD were excluded from the evaluation. ALVA thus included publications and grants for evaluation.

**Arts, Humanities and Social Sciences** defined their evaluation period as 5 years, and included publications, grants and supervision. AHSS developed a ranked approach, with greater levels of activity expected from more senior staff. *Research active* is defined by achieving a specified number of POINTS, where POINTS are defined as either DEST publications, grant applications (which are really an input), and HDR completions. Only Levels D and E were evaluated on the basis of grant success rather than application.

**Business** defined a points-based system, using a different set of points than those on Socrates, but defined on the basis of publications and successful grants. Their system can be converted to Socratic points.

**ECM** set the lowest requirements, equivalent to the current University minimum level of 1 DEST point over three years, or an external grant to the value of at least \$30k over three years.

**Education** used a 5-year rolling window. They differentiated between Levels B/C and Levels D/E. Their definitions included publications, grants and HDR completions. They introduced an element of quality into the publication evaluation.

**Law** specified research active in terms of three article publications over a 3-year period.

**LPS** used a 3-year window. They excluded ECRs from evaluation for the first 5 years of their postdoctoral working life. Their definition included a quality element by demanding at least five ISI-indexed journal articles over 3 years, or external grant winnings over \$75.

**MDHS** used a 5-year window for evaluation. They ranked the definition according to academic seniority. They included a quality element in publications. They included grants and HDR completions. They argued for a knowledge transfer component to include clinical staff, and argued that publications and grants relating to teaching and education should be included.

**NAS** used a 3-year window and a common definition for all levels. They used publications and HDR completions only. They made a distinction between laboratory-based science and social science by specifying different targets.

On the basis of the Faculty inputs, it is possible to use a “common framework” to get a general idea of what each faculty is suggesting. By using a 5-year window and converting the required outputs to Socratic points (ignoring the complication that HDR completions are not currently measured in Socrates), we get the definitions displayed in Table 1 below for publications, and Table 2 below for grants.

Table 1: **Minimum Level of Research Active Outputs** defined over a rolling 5-year period. Draft suggestions by each Faculty are indicated at each academic level. Outputs are defined by Socratic Output Points (and thus currently include University publication points and grant points).

	A	B	C	D	E
<b>ALVA</b>	<b>1.20</b>	<b>2.18</b>	<b>3.46</b>	<b>6.56</b>	<b>9.96</b>
<b>AHSS</b>	<b>5.00</b>	<b>7.00</b>	<b>10.00</b>	<b>12.00</b>	<b>15.00</b>
<b>BUS</b>	<b>5.16</b>	<b>5.16</b>	<b>5.16</b>	<b>5.16</b>	<b>5.16</b>
<b>EDU</b>		<b>5.00</b>	<b>5.00</b>	<b>8.00</b>	<b>8.00</b>
<b>ECM</b>	<b>1.66</b>	<b>1.66</b>	<b>1.66</b>	<b>1.66</b>	<b>1.66</b>
<b>LAW</b>		<b>5.00</b>	<b>5.00</b>	<b>5.00</b>	<b>5.00</b>
<b>LPS</b>	<b>8.33</b>	<b>8.33</b>	<b>8.33</b>	<b>8.33</b>	<b>8.33</b>
<b>MDHS</b>		<b>5.00</b>	<b>5.00</b>	<b>6.00</b>	<b>6.00</b>
<b>NAS</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>	<b>10.00</b>

Table 2: **Minimum Level of Research Active Grant dollars** defined over a rolling 5-year period. Draft suggestions by each Faculty are indicated at each academic level.

	A	B	C	D	E
ALVA					
AHSS				\$	\$250k
BUS					
EDU		\$8.33k	\$8.33k	\$8.33k	\$8.33k
ECM	\$50k	\$50k	\$50k	\$50k	\$50k
LAW					
LPS	\$125k	\$125k	\$125k	\$125k	\$125k
MDHS		\$	\$	\$	\$
NAS					

It is clear that some Faculties have uncovered issues that others haven't (e.g., how to treat ECRs), while none have thought about some issues (e.g., part-time staff).

Since these definitions of *research active* are likely to be used to determine eligibility for research study leave entitlements, it is important that staff in one part of the university of not treated unfairly relative to staff elsewhere.

Thus, where discipline practices are common, a common definition should be used. Factors that should determine differences in the definition include discipline cluster group, academic seniority, FTE status, and ECR status.

### Updating the UWA Socratic Index

If definitions of *research active* are to be made in terms of the Socratic Index, then it is appropriate to ask whether the current index is measuring the right sorts of things. In any case, the 2007 publication data have now been collected, audited and included in Socrates. This means that we should take this opportunity to make a few changes in response to the changed political landscape and feedback from the University community.

The changes and feedback can be summarised as follows:

- The RQF has been replaced by the ERA. The RQF window of calculation was to be the six years from 2001-2006. The ERA has defined its window size as 6 years for publications and possibly three years for grants and HDR data. The ARC uses a 5-year window to evaluate track records.
- The University has moved from Research Master to InfoEd
- The University has expressed concern that **quality** is not being taken into account when calculating the Socratic Index of staff. Quality can be factored in by taking into account whether a C1 journal article appears in an ISI-indexed journal or not (since this contributes to the University's ranking status in the Shanghai Jiao-Tong rankings), and whether a grant is classed as Externally Peer Reviewed or not. It is important to take account of quality, if we can sensibly determine a proxy for it, because it directly relates to the University's goal of improving its international position. In addition, an individual's Socratic Index is increasingly being used to inform promotion applications and to adjust workloads. It is important, thus,

that the data be as accurate as possible, as complete as possible, and that the computation sends the right institutional signals. It is recognized that the ISI Web of Science does not give a good coverage for the humanities and some social sciences. When the ERA has been implemented we could also include the tiered journal lists as a quality driver.

- The Faculty of AHSS has expressed concern that the points values for A1 Research Monographs is too high for status points (although not for financial points!), relative to their other forms of output, when evaluating and comparing individuals for promotion.
- The University has expressed concern that **collaboration** is discouraged through the current system. This can be addressed by sharing points across UWA authors/CIs, but not across the whole field of contributors. This maintains, thus, some compensation for disciplinary practices where single-author status remains the norm and publication output is thus relatively less frequent.
- Currently, HDR activity is not included in the Socratic Index but will be part of the ERA and is included in many faculties' definitions of *research active*.

Given this background, the Research Committee accepted a new measure for the Socratic Index, in addition to the University Index (which relates to the Faculty Funding Model) and the DISSR Index (which relates to Government funding to the University). This new Socratic Index would become the main index in Socrates II. Note that there is no implied change to the Faculty Funding Model from these changes; rather the Socratic Index would be used to visualize staff research performance through a set of agreed-upon indicators of achievement.

1. The new Socratic Index should be calculated over a **5-year window**, using data from 2003-2007.
2. The new Socratic Index should be calculated using demonstrated performance over three parameters:
  - a. **Publication Output**
  - b. **Grants**
  - c. **HDR Completions**
3. For the purposes of the Socratic Index, **Publication Points** should change as follows:

a. A1 Research Monographs	5 points
b. <i>Nature</i> or <i>Science</i> C1 articles	5 points
i. C1 articles in the SSCI	4 points
ii. C1 articles in both SSCI and SSI	3 points
iii. C1 articles in the SSI	2 points
iv. Other C1 articles not indexed	1 point

These weightings reflect those used in the Shanghai Jiao-Tong rankings.

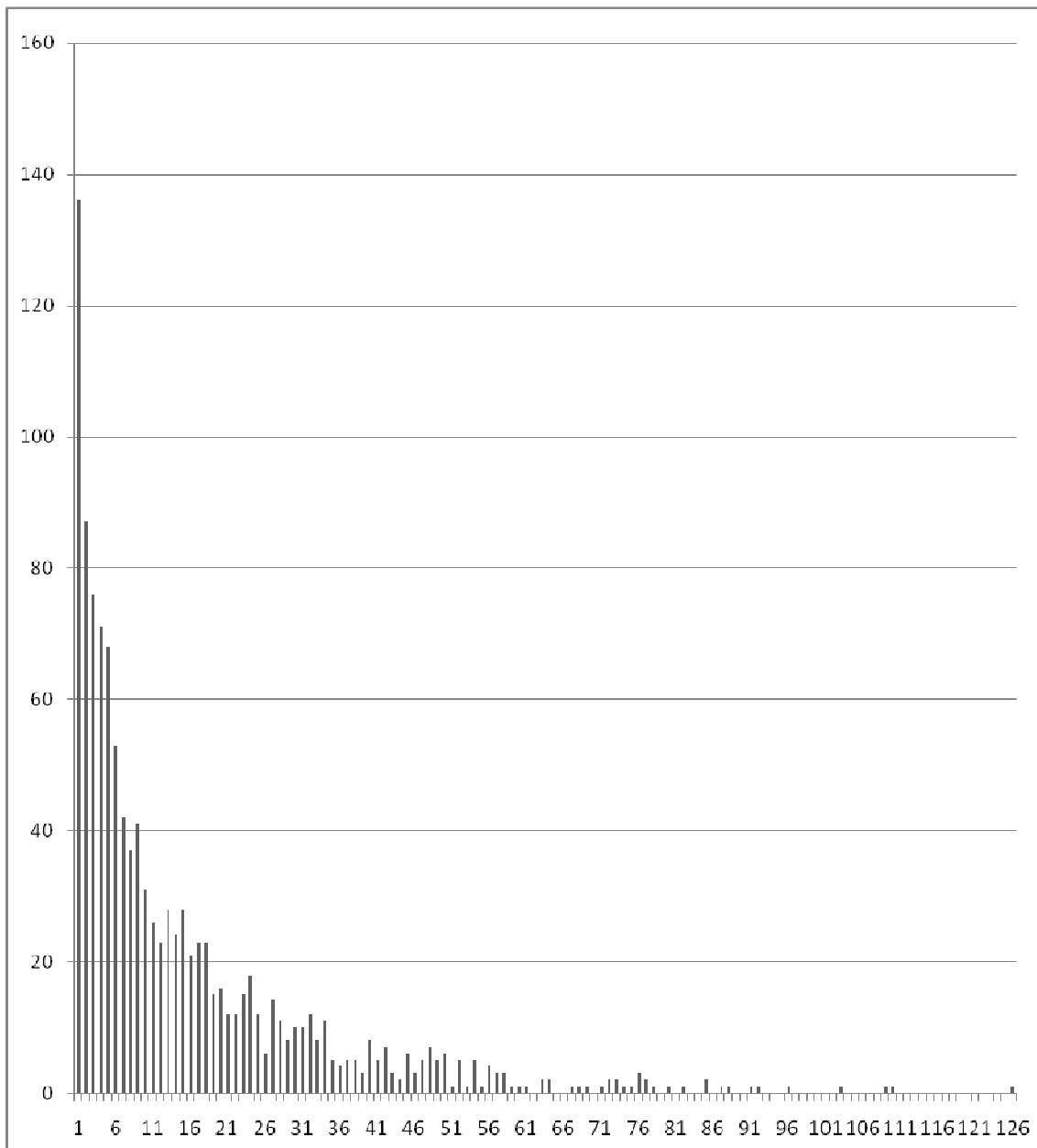
- c. B1 book chapters not indexed in ISI                      1 point
  - d. E1 Refereed Conference Papers                              0.5 points
  - e. All other output as currently rated for the FFM except that creative works receive a maximum of 5 points.
4. **Collaboration** should be encouraged by sharing points between UWA authors only. Thus, if there are 5 authors on a B1 book chapter, two of whom are UWA and the other three are external, then each UWA author gets 0.5 points.
5. For the purposes of the Socratic Index, **grant points** should be allocated as follows:
- a. 1 point for any grant from \$5,000 up to \$50,000
  - b. 2 points for any grant between \$50,000 and \$500,000
  - c. 3 points for any grant over \$500,000
  - d. Externally peer-reviewed grants should get a double weighting
  - e. Points should be shared evenly between UWA CIs
  - f. UWA students treated as staff for these purposes – they are allocated their share of points if they are listed as a CI.
  - g. Staff are encouraged to submit details to Research Services of successful grants won externally and administered through other universities.
6. The Socratic Index should allocated points for successful **HDR completions**
- a. 2 points should be allocated for a Doctoral completion
  - b. 1 point should be allocated for a Masters Completion (RTS masters)
  - c. Points should be apportioned across all supervisors on the basis of proportional supervisor load.
  - d. All supervisors should be accounted for – UWA supervisors should **not** gain the points of external supervisors.

These changes have now been implemented into Socrates II, which will be released at the beginning of 2009. On the basis of these changes, we can now compute the average institutional research performance indices, and these are displayed below.

Table 3: Academic staff are defined as all Teaching and Research and Research-Only staff at Level B or above, on a 0.4 or above appointment (the RQF definition) (thus casual staff and Honorary staff are excluded).

Total Academic Staff:	1115
Mean Research Input Points:	4.76
Mean Research Output Points:	13.63
Mean HDR Completion Points:	1.39
Mean Total Research Points:	19.80

By including all academic staff on any fraction of appointment (including casuals) we have 1542 staff. The graph below shows the distribution of SI points across all academic staff (excluding the 424 people who have a score of zero):



There are a large number of academic staff on zero points. Many of these are accounted for by new appointments. However, there is also a long tail, with some staff achieving Socratic points over 100. Because the distribution is dominated by the lower end, the average Socratic points are relatively low. These are shown below for the whole University, for each of the nine Faculties, and in aggregate for the five “non-Science” Faculties and for the four “Science” faculties. There is a clear distinction between the lab-based and non lab-based disciplines.

Table 4: The average SI per Level for each faculty and average for the Arts and Sciences faculties.

Level	University	AHSS	ALVA	EDU	BUS	LAW	FECM	FLPS	FNAS	MED	5 ARTS	4 SCIENCE
LVLA	2.1	2.4	2.9	7.3	1.4	0.0	2.4	4.1	3.8	2.5	3.5	3.2
LVLB	5.3	5.3	2.9	3.5	3.8	1.9	4.6	7.3	7.2	7.7	3.9	6.7
LVLC	9.3	7.7	3.5	4.1	8.7	6.5	11.4	10.9	23.0	6.3	6.0	12.9
LVLD	20.3	14.9	16.4	19.6	12.6	8.3	18.3	27.3	29.0	19.2	15.9	23.5
LVLE	31.5	15.5	16.8	20.7	18.9	11.7	34.7	30.6	50.1	32.8	18.0	37.1

It is thus proposed that we define the minimum level of *research active* as 50% of the mean SI point per discipline group (Arts or Science):

Table 5: 50% of the average levels for the broad discipline groupings.

Level	ARTS	SCIENCE
LVLB	2.0	3.0
LVLC	3.0	6.0
LVLD	8.0	12.0
LVLE	9.0	19.0

So, for example, for **Level E in the non-Science** areas this would mean over a 5-year period

1 single author book (5pts) **and**

1 single authored SSCI-indexed journal paper (4 pts).

**Or** , over five years

5 single authored non-indexed journal papers (5 pts) **and**

1 single CI ARC grant worth between \$50k and \$500k (4 pts).

**Or**, over five years

4 PhD completions (8pts) and 1 Masters completion (1pt) (sole supervisor)

For **Level E in the Science** areas this would mean over a 5-year period

10 single authored SCI-indexed journal papers (20 pts).

**Or** , over five years

5 single authored SCI-indexed journal papers (10 pts) **and**

4 single-authored refereed conference papers (2pts) **and**

1 single CI ARC grant worth between \$50k and \$500k (4 pts) **and**

2 PhD completions (4pts) (sole supervisor).

**Or**, over five years

5 single authored SCI-indexed journal papers (10 pts) **and**

4 PhD completions (8pts) and 1 Masters completion (1pt) (sole supervisor).

For a **Level C in the non-Science** areas, research active could be demonstrated over five years with 3 single-authored non-indexed journal articles, or 1 PhD completion and 1 Masters completion.

For a **Level C in the Science areas**, research active could be demonstrated over five years with 3 single-authored indexed journal articles, or 3 PhD completions (sole supervisor).

Using these definitions, the percentage of staff that would be considered research active, distributed across the faculties are as follows:

Table 6: Percentages of staff meeting the minimum research active definition for the 'Arts' faculties:

	<b>LEVEL A (1.5)</b>	<b>LEVEL B (2)</b>	<b>LEVEL C (3)</b>	<b>LEVEL D (8)</b>	<b>LEVEL E (9)</b>
<b>AHSS</b>	22	59	78	81	75
<b>ALVA</b>	50	39	44	100	60
<b>EDU</b>	100	40	50	75	80
<b>FBUS</b>	8	48	73	56	68
<b>LAW</b>		9	30	0	17

Table 7: Percentages of staff meeting the research active definition for the 'Science' faculties:

	<b>LEVEL A (1.5)</b>	<b>LEVEL B (3)</b>	<b>LEVEL C (6)</b>	<b>LEVEL D (12)</b>	<b>LEVEL E (19)</b>
<b>FECM</b>	74	61	58	61	74
<b>FLPS</b>	46	51	57	72	74
<b>FNAS</b>	39	53	92	74	85
<b>MEDDENT</b>	28	52	19	44	65

In addition to these minimum levels of research active, it is proposed that the aspirational levels of research active be defined as the mean Socratic Index points of the level above, for the appropriate discipline grouping. Thus, the aspirational levels of research active would be as follows:

Table 8: Aspirational levels of research activity by academic level. The Socratic points for the professorial level will require further analysis once the new academic titles are introduced.

<b>Level</b>	<b>5 ARTS</b>	<b>4 SCIENCE</b>
<b>LVLA</b>	3.9	6.7
<b>LVLB</b>	6.0	12.9
<b>LVLC</b>	15.9	23.5
<b>LVLD</b>	18.0	37.1
<b>LVLE</b>	20.0	40.0

### **Conclusion**

This paper has proposed a general framework for the consideration of the Senior Deputy Vice-Chancellor and the Faculty Deans for the definition of minimum levels of research activity, which would be used to argue a prima facie case for access to a research-based study leave, and aspirational levels of research activity, which would be used to argue a prima facie case for promotion based on research.