**HOW MANY HOURS SHOULD YOU DEDICATE TO EACH CANDIDATE**

**by Simon Moss**

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| **Introduction** |

**Purpose of this document**

How many hours should you, as a research supervisor, dedicate to each PhD or Masters by Research candidate? Should you dedicate about 30 hours a year to meetings with each candidate and perhaps 50 hours to correcting drafts? Should this estimate depend on the number of academics who are supervising this candidate? This document offers some answers to these questions and similar queries. In particular, this document could

* help supervisors ascertain whether they can spare the time to supervise additional candidates
* help supervisors judge whether they are devoting enough time to each candidate
* help candidates ascertain whether they are receiving enough support from supervisors
* help colleges incorporate supervision into workload formulas

**Outline of the results**

This document outlines the procedures that were conducted to estimate the number of hours that research supervisors should dedicate to each research candidate. In short, these procedures showed that

* a supervision team should, on average, devote 174 hours a year to each research candidate —about 10% of a typical workload
* to illustrate, a supervisor who is assigned 50% of the supervision load should devote 87 hours to this research candidate
* part time candidates should be assigned about half this load
* nevertheless, whenever academics supervise more than one candidate, some adjustments are necessary

If you would like more precise estimates—or greater insight into how these estimates were derived—you can read the rest of this document. Alternatively, you might feel this rough estimate of 174 hours is sufficient.

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| **Limitations of existing models** |

Many universities have developed and disseminated policies that stipulate or estimate the number of hours that supervisors should dedicate to research candidates—policies that CDU could emulate. Nevertheless, for a variety of reasons, these estimates are often unsound. To illustrate

* these estimates are sometimes deliberately underestimated, primarily to accommodate other constraints, such as enterprise agreements
* supervisors tend to underestimate the duration they need to complete their roles, called the planning fallacy
* the number of hours supervisors devote to supervision might not equate to the number of hours supervisors should actually devote to supervision

To overcome these limitations, this document outlines a sequence of two phases, designed to estimate the number of hours that supervisors should dedicate to research candidates. In particular

* the first phase derives these estimates from available information, such as surveys of research candidates, surveys of research supervisors, and existing guidelines
* the second phase applies several research methods to revise these estimates continually

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| **Initial estimates** |

**Parameters**

To calculate the number of hours research supervisors should dedicate to research candidates, several parameters need to be estimated first. The following table presents these initial estimates. These estimates apply to full time PhD candidates.

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| --- | --- | --- | --- | --- | --- |
| Parameter | Scale |  | Lower limit | Upper limit | Mid- point |
| Meetings with at least one supervisor  | Hours each month |  | 2 | 6 | 4 |
| Meetings with all supervisors | Hours each year |  | 3 | 9 | 6 |
| Time spent correcting 10 000 words | Hours  |  | 6 | 14 | 10 |
| Number of words submitted by candidates including* drafts of the thesis
* plans of chapters
* research proposals
* ethics applications
* important correspondence
 | Across the candidature |  | 70 K | 140 K | 105 K |
| Number of times these drafts are read | Across the candidature |  | 2 | 6 | 4 |
| Administrative support including* confirmation of candidature
* completing progress reports
* organizing resources
* liaising with relevant staff
* arranging examiners
 | Hours across the candidature |  | 4 | 16 | 10 |

These estimates were derived from a variety of sources including

* surveys of CDU candidates
* surveys of CDU staff
* aggregated surveys of other universities
* annual reports of candidates
* guidelines from the ACGR

In addition, although not included in these estimates, research supervisors need to dedicate some additional time—perhaps 4 to 8 hours a year—to professional development to

* learn about updates to policies, procedures, and recommended practices
* learn about advances in research methods

**Estimates of time you should dedicate to meetings**

 The following table indicates the number of hours you should dedicate to meetings with each of your research candidates every year. These estimates were derived from the parameters in the previous table. This table helps you and your candidates decide how often you should meet. To estimate the number of hours you should devote to one research candidate

* identify the column that corresponds to the number of supervisors assigned to this candidate
* identify the row that represents the % of supervision you were assigned to this candidate
* the number in the cell corresponds to the number of hours of meetings you should convene with this candidate each year

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Percentage of supervision load | 2 supervisors | 3 supervisors | 4 supervisors | 5 supervisors |
| 5 | 3 | 3 | 4 | 4 |
| 10 | 6 | 7 | 7 | 8 |
| 15 | 9 | 10 | 11 | 12 |
| 20 | 12 | 13 | 14 | 16 |
| 25 | 15 | 17 | 18 | 20 |
| 30 | 18 | 20 | 22 | 28 |
| 35 | 21 | 23 | 25 | 33 |
| 40 | 24 | 26 | 29 | 38 |
| 45 | 27 | 30 | 32 | 42 |
| 50 | 30 | 33 | 36 | 47 |
| 55 | 33 | 36 | 40 | 52 |
| 60 | 36 | 40 | 43 | 56 |
| 65 | 39 | 43 | 47 | 61 |
| 70 | 42 | 46 | 50 | 66 |
| 75 | 45 | 50 | 54 | 71 |
| 80 | 48 | 53 | 58 | 75 |
| 85 | 51 | 56 | 61 | 80 |
| 90 | 54 | 59 | 65 | 85 |
| 95 | 57 | 63 | 68 | 89 |
| 100 | 60 | 66 | 72 | 94 |

 To illustrate, suppose you are assigned 50% of the supervision load to supervise one candidate. As this table implies

* if two academics supervise this candidate, you should dedicate 30 hours to meetings with this candidate
* if three academics supervise this candidate, you should dedicate 33 hours to meetings with this candidate
* half the number of hours should be dedicated to part time research candidates

At first glance, this increase from 30 hours to 33 hours might seem unusual. To explain this increase

* all the supervisors of a candidate should attend joint meetings, perhaps three or more times a year
* therefore, as the number of supervisors increases, more supervisors attend these joint meetings
* so the number of hours dedicated to meetings, when aggregated across supervisors, increases
* thus 50%, or indeed any percentage, of these aggregated hours increases too

Admittedly, this example assumes supervisors assigned 50% of the supervision load also attend 50% of the meeting duration. This assumption might not be fulfilled. For example, a supervisor might be assigned 50% of the supervision load, but attend few meetings and, instead, correct most of the drafts.

**Estimates of time you should dedicate to research candidates**

In contrast to the previous table, the following table indicates the total number of hours you should dedicate to each research candidate—including meetings, corrections to drafts, and administration. Again, to estimate the number of hours you should devote to one research candidate

* identify the column that corresponds to the number of supervisors assigned to this candidate
* identify the row that represents the % of supervision you were assigned to this candidate
* the number in this cell corresponds to the number of hours you should dedicate to this candidate each year

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Percentage of supervision load | 2 supervisors | 3 supervisors | 4 supervisors | 5 supervisors |
| 5 | 8 | 9 | 9 | 9 |
| 10 | 17 | 17 | 18 | 19 |
| 15 | 25 | 26 | 27 | 28 |
| 20 | 34 | 35 | 36 | 37 |
| 25 | 42 | 43 | 45 | 46 |
| 30 | 50 | 52 | 54 | 56 |
| 35 | 59 | 61 | 63 | 65 |
| 40 | 67 | 69 | 72 | 74 |
| 45 | 75 | 78 | 81 | 83 |
| 50 | 84 | 87 | 90 | 93 |
| 55 | 92 | 95 | 99 | 102 |
| 60 | 101 | 104 | 108 | 111 |
| 65 | 109 | 113 | 117 | 121 |
| 70 | 117 | 121 | 126 | 130 |
| 75 | 126 | 130 | 135 | 139 |
| 80 | 134 | 139 | 144 | 148 |
| 85 | 142 | 147 | 153 | 158 |
| 90 | 151 | 156 | 162 | 167 |
| 95 | 159 | 165 | 171 | 176 |
| 100 | 168 | 174 | 180 | 186 |

 To illustrate, suppose you are assigned 50% of the supervision load to supervise one candidate. As this table implies

* if two academics supervise this candidate, you should dedicate 84 hours to this candidate—almost two hours a week
* if three academics supervise this candidate, you should dedicate 87 hours to this candidate
* half the number of hours should be dedicated to part time research candidates.

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| **Procedure to update estimates** |

These estimates will be revised continuously. For example, as part of a broader research project on the planning fallacy, the investigators will

* closely monitor the time that supervisors dedicate to the various tasks—using calendars and surveys
* explore whether these durations predict outcomes, such as completion and satisfaction

To illustrate, this study might show that, if supervisors meet each research candidate at least 30 hours a year, further meetings may not significantly improve the productivity or satisfaction of candidates. Consequently, to discourage supervisors from meeting each candidate more than 30 hours a year, the parameters would need to be adjusted.

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| **Implications of supervising more than a few candidates** |

**Complications with supervising more than a few candidates**

 Whenever you supervise more than a few research candidates, several complications might unfold. To illustrate,

* suppose you supervise five research candidates
* for each candidate, you are assigned 30% of the supervision load—and should thus dedicate around 50 to 56 hours to each candidate a year
* you might, therefore, contend this supervision will demand at least 5 x 50 or 250 hours
* you thus want this 250 hours to be included in workload calculations or similar procedures.

In this example, you merely summed the number of hours you plan to dedicate to each research candidate. This scenario raises two complications.

* first, this scenario overlooks possible economies of scale. To illustrate, supervisors can occasionally meet two or more candidates in one meeting
* second, this decision to merely sum the number of hours you dedicate to each research candidate could motivate academics to supervise too many research candidates. They might, for example, choose to supervise more than 10 candidates—and then maintain they are too busy to teach, to mark, or to fulfil other key responsibilities.

**Example of a solution**

To illustrate a solution, consider the previous example, in which you dedicate about 50 hours or so to five research candidates. To ascertain the number of hours that should be included in workload calculations or similar procedures, the following algorithm might be appropriate

* for the first research candidate, you are assigned 50 hours
* for the second research candidate, you are assigned 50 – 0.3 x .167 x 50 = 47.5 hours
* for the third research candidate, you are assigned 50 – 0.6 x .167 x 50 = 45 hours
* for the fourth research candidate, you are assigned 50 – 0.9. x .167 x 50 = 42.5 hours
* for the fifth research candidate, you are assigned 50 – 1.2 x .167 x 50 = 40 hours and so forth

Therefore, to supervise these five research candidates, you would be assigned 50 + 47.5 + 45 + 42.5 + 40 hours—in other words 225 hours instead of 250 hours. You would be expected to utilize economies of scale, such as joint meetings, to save this difference of 25 hours. This example can be converted to the following formula

Adjusted Ni = N1 – prior summed proportions x .167 x N1  in which

* **Adjusted Ni**represents the number of hours that should be included in a workload formula to supervise candidate i
* **Ni** represents the number of hours the previous table implies you should dedicate to candidate i
* **prior summed proportions** represents the sum of the proportions you have been assigned to previous research candidates. For example, if you already supervisor two research candidates at 50% each, prior summed proportions would equal 100% or 1

You might feel this formula is cumbersome. But, macros can be readily developed to apply this formula.

**Rationale for this solution**

 At first glance, this formula might seem arbitrary. However, this formula can be readily justified. To illustrate

* the policies of other universities, on average, preclude academics from supervising more than 6 research candidates alone—the equivalent of 12 research candidates if assigned 50% of the supervision load
* if this formula is applied, once academics exceed this limit, other research candidates they supervise will not be included in workload formulas or similar procedures.
* That is, in the formula 6 x .167 = 1. Thus, Adjusted Ni = N1 –  x N1 = 0.

The formula, therefore, is designed to prevent academics from supervising more than the equivalent of 6 research candidates alone.

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