

## Revisiting a possible page limit for Undergraduate dissertations

— Iain Murray, 2020-02-11, updated with further staff comments 2020-02-17.

We introduced a page limit for MSc projects last year. Teaching committee and my institute asked me to bring an item on considering a page limit for undergraduate projects this year.

**MSc Policy:** [http://web.inf.ed.ac.uk/sites/default/files/atoms/files/project\\_page\\_limits\\_v2.pdf](http://web.inf.ed.ac.uk/sites/default/files/atoms/files/project_page_limits_v2.pdf)

### Report on implementation:

[https://web.inf.ed.ac.uk/sites/default/files/atoms/files/201909\\_msc\\_page\\_checking.pdf](https://web.inf.ed.ac.uk/sites/default/files/atoms/files/201909_msc_page_checking.pdf)

**Staff experience with the MSc limit:** [https://web.inf.ed.ac.uk/sites/default/files/atoms/files/msc\\_page\\_limit\\_supervisor\\_and\\_marker\\_comments.pdf](https://web.inf.ed.ac.uk/sites/default/files/atoms/files/msc_page_limit_supervisor_and_marker_comments.pdf)

Please read the original policy before raising alternatives (such as word limits). Most staff who responded thought the policy was a positive change, although a minority remain strongly against.

**Are the best projects long?** Some of them, yes. However, in addition to the above analysis, I've since looked at last year's UG projects. In fact, the best projects were only slightly longer than the proposed limit (without any restriction to reign them in). Overall, excluding failing projects, there was no correlation between mark and number of content pages (Pearson correlation  $-0.005$ ). Including failing projects gives a positive correlation, because failing projects are almost always short.

### Staff opinions

27 teaching staff replied to a request for comments between 5–17 February.

- 17 were in favour of a page-limit policy broadly similar to the MSc one.
- 3 thought we need a substantially different policy (perhaps to accommodate different project types).
- 7 staff are against a limit (2 past project coordinators *strongly* so).

**The full free-text responses (in the order received) from those staff who left comments are listed at the end.**

### Summary of issues

Please see the attached comments for the reasons behind the following diametrically-opposed views:

**Writing concisely:** Some staff think learning to present within constraints is an important skill. Others think a page limit is a distraction that wastes the time of the students who have done the most.

**Impact on quality:** Some staff felt the MSc limit improved the quality and focus of the submitted dissertations. Some staff felt it damaged them.

**Ease of marking:** There are staff who argue *from experience* for all points of view: that shorter projects are easier, harder, or about the same to mark.

A majority of staff who responded are in favour of a limit and felt the MSc limit was a positive change. However, the total number of responses is a small fraction of teaching staff. You can also see the strength of feeling behind the opponents of this policy for yourself.

### Other issues raised:

- The MSc policy enforces use of L<sup>A</sup>T<sub>E</sub>X. For reference: 5 UG projects last year didn't use L<sup>A</sup>T<sub>E</sub>X.
- Some styles of project need to be longer. Long series of screenshots or additional statistics can be put in an appendix. So the argument is whether the marker needs to be led in detail through more than 40 pages of material in the main body to judge what the student has done.
- Number of pages for limit. Some staff argue for higher limits. If we standardized on single-spacing (which most UG projects used), a 40 page limit (on content pages) would already be longer than the MSc limit. Only 10% of UG projects had more than 60 content pages last year.

## Proposal

The obvious two options before us are:

1. Adopt the MSc policy for UG projects. Perhaps with single-spacing instead of 1.5 line spacing.
2. No hard page-limit policy for UG projects.

There is non-zero, but not much, appetite for developing a more complicated policy.

Other possible actions:

- a) Update the marking criteria around the use of effective use of space. Lengthy, non-critical summaries of established topics should be marked as poor uses of space, as should circuitous arguments.
- b) Assign a role for teaching our UG4 students more report writing skills.

## Staff comments

In order received, with a dividing line where first circulated. Two staff have comments in both phases.

### Philip Wadler

It is common for conferences to have a page limit on submissions, but also to allow any length of appendices on the understanding that the reviewers are not required to read the appendices. This might deal with the concern that sometimes a greater length is appropriate, while encouraging students to be concise.

### Julian Bradfield

I do not see the need. I support some fairly strongly worded guidance, but I dislike hard constraints in all forms. Looking at some of the MSc marker comments, I see remarks about “padding”. I often end up marking projects rather far from my area (because I feel that I should not restrict too much what I can mark, and because I like to see what others are doing), and I appreciate a decent explanation of background, even if it’s not original. I’m not sure it takes longer to read 60 loosely worded pages than 40 tightly worded pages. (Disclaimer: I am well known for my “novelistic style”, as one reviewer put it.)

### Perdita Stevens

I would be against a super-short limit (15pp would not be enough, say) but I don’t believe there is a natural length for a piece of work. The ability to use space well is an important transferable skill and, say, 40pp should be enough for a UG project - 40 good pages is plenty for even an excellent piece of work of this size to have its excellence explained. Students often assume longer is better and are resistant to being told otherwise. A page limit would make it clear. If we really wanted to be canny, we could allow extra pages at a penalty of, say, 1% per extra page.

### Don Sannella

NB: I am on sabbatical this year so have not been able to be present at Teaching Committee meeting discussion of this topic. For that reason I refer to the discussion of the MSc page limit last year, since I was present there.

1. The main motivation for the MSc page limit was to save the markers work. Of course I understand that there is an issue of workload but if we can’t spend the time required to mark projects then we shouldn’t be taking the students in the first place. I just don’t think that saving markers work should take priority over having students write up their work properly and having it marked properly.
2. I have marked a lot of projects and don’t think that it is actually significantly more work to mark longer project reports than shorter ones.
3. Another justification for the MSc page limit was that we are training students to produce conference publications, which involves presenting things within a limited amount of space. I think that applies only to a small minority of our students, and a project report is nothing like a conference paper. [I don’t know if this is also being given as a justification in the case of UG projects - if not, please ignore.]
4. I see appropriate length as part of the “Quality of the dissertation” marking criterion. That is one of the so-called “basic criteria”, which means that poor quality is strongly penalised by the marking scheme - in the marking scheme, the upper limit for a project that is not at least good on all of the

basic criteria is 59. Perhaps the guidance on writing should stress more strongly the desirability of being concise.

5. Thinking back to the UG and MSc students I have supervised over many years, the very best projects (which won best project awards, and twice also Scottish-wide awards) were never 40 pages or less. They were as long as necessary to present the work and no longer.
6. In 2019, I had probably the best MSc student that I have ever supervised. He got the project prize for the Computer Science MSc. The only thing that wasn't excellent in his report was the absence of important material that couldn't be included because of the page limit. He worked very hard to condense explanations to make things fit but the amount of background material that needed to be included - the project combined two research strands, that both needed to be covered - made it impossible to fit everything. And he spent lots of time on condensing good material that could have been spent much more productively. I just don't see the point of him spending time on this kind of thing rather than on doing good work and explaining it properly.

### **Frank Keller**

I feel the page limit for MSc dissertations has worked well, despite much initial skepticism. It makes sense to also introduce it for UG4 projects. It should be an educational tenet for students to learn to write concisely. Most things they will need to write in their professional lives will have a page limit, and more generally, concision is a highly valued writing skill. It will be required, though, to provide students with examples of well written project reports, and to also encourage supervisors focus a bit more than before on writing style when they give students feedback.

### **Judy Robertson**

I believe that the students most likely to be affected by the limit are the best students. But the best students should be able to develop the skill of writing concisely. Journals and conferences have limits which academics have to work round; it's a skill we have learned too.

### **Maria Wolters**

If we do this, then we should ensure that UG students get one or two writing workshops in Semester 2 that focus specifically on tricks for writing concisely. We should also let all non-native speakers know that they should leave plenty of time for proofreading and maybe also look for a copy editor. Waffling tends to be encouraged in language tests, as it is an opportunity to show off one's grasp of complex grammar.

### **Bob Fisher**

In the case of image data based dissertations, and often robotics disses, ideally the student will show lots of images of inputs, intermediate steps, and results. This could easily take up 10-20 pages of space to include an appropriate amount of evidence.

### **Sharon Goldwater**

I support a page limit. I think the UG report format defaults to closer line spacing than MSc (1 instead of 1.5, if I recall correctly), so even using the same page limit would actually provide more space. I might be convinced to adopt a 50-page limit, but I think anything more than that is likely to encourage longer reports rather than shorter ones. I do not think supervisors individually should be able to opt out. I do think that providing more formal support to students for their writing would be useful, and I'm pretty sure that we could manage this as a School, if someone (other than the project coordinator) was given an admin or teaching role to do this, and students could opt in to peer review sessions with strict deadlines.

### **Mary Cryan**

I think we are better off without having a page limit. From what I saw in MSc marking this past year, many (of the stronger students) end up with a big appendix - we're not supposed to read it, but I'm not sure that's fair.

If we are to have a page limit it should be higher than the one for MScs. 55 pages, say

### **Boris Grot**

I believe the benefits of a page limit are two-fold. For students, they can focus on the core of the dissertation and not worry about "padding", which I have found to be a problem in the past with soft page limits. Students seem to feel that longer dissertations are somehow better. For staff, with increasing student numbers, this means less (often, significantly less) marking load. Less load -> better marking quality.

### **Helen Pain**

I have a number of comments to make.

1. Procedure: this issue was discussed and voted on last year. Why is it being revisited so soon?
2. Who benefits? The 3 most relevant parties are students, supervisors, markers. Students: Restricting project length requires more work by students to edit dissertations. They may leave relevant information out. [Note MSc comments]. Supervisors: have more work in helping students edit to fit the limit; they save little time when marking if they have read drafts already. [Note: I have supervised PPLS word limited projects - they take more work]. Second markers: main beneficiaries of this change. However, a longer, well written, project may be easier to mark than a shorter one with missing detail.

Those with less than a full supervision load get more second marking. Supervisors with a full load have less second marking.

THIS PROPOSED CHANGE REWARDS STAFF WHO DO NOT TAKE A FULL SUPERVISION LOAD, AND PENALISES STAFF WHO DO.

3. Different project types. We pride ourselves on our breadth of disciplines and related methodologies, and consequent dissertation styles. Some require more justification of methodology and/or design, accounts of pilot testing, illustrations, more detailed data analysis and more extensive evaluation and discussion. For full credit of work undertaken, and evidence of understanding and critical evaluation, some simply require more pages.
4. Quality v Length: Whilst there may not be a direct correlation between length and quality (though I do not see why failing projects are not included in this calculation) the best dissertations are nearly always over 40 and may be over 60 pages, and are often very good indeed. They win internal and external prizes and result in positive comments from external examiners (EE).
5. More concise dissertations: Ideally this would be great - but it is neither a specific criteria for the dissertation, nor the greatest priority for completion given limited timing - this should be addressed in papers written after submission.
6. Who cares? A previous poll of PhD students who were also UG/MSc did not support a page limit. The project organisers for recent years (HP/DTS) strongly oppose this proposal. Staff overall are divided on this issue.
7. Impact of page limit: If dissertations have to be resubmitted, and penalties incurred, this may have disproportionate impact on students' final degree class.
8. Logistics: if in order to check the page limit the dissertation must be formatted with latex, with a specific template. UG4/MInf students are not currently required to use one specific latex format. For purposes of feedback and citation style some supervisors (such as myself) would strongly prefer that they did not. This would be a policy change that would need to be further discussed.
9. Compromise: If it is decided that we really have to have a page limit (advantage to markers!), then I would argue for 60 pages (A4 paper, single spaced, 12 point font), excluding references and appendices. A 40 page limit will severely disadvantage a subset of staff and students.

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*The following comments were received after circulating those above:*

**Alex Lascarides**

We are heading for vastly increased numbers of UG4/MInf projects, and we need to anticipate the heavier supervision and marking load now. I guess I wouldn't mind if this policy was deferred to 2021/22, but I think it will be critical from then on for making delivering UG4 projects doable.

**Laura Sevilla-Lara**

My current UG4 students feel like they have to fill in as many pages as they can, regardless of whether they have actual relevant worthwhile content. They fear otherwise their marks will be affected. I try to explain quality is better than quantity but they worry other reviewers might not agree. This seems like an undesirable effect of the current page limit.

**Michael Herrmann**

It is desirable for the students to have a page limit to know what to aim at, to organise write-up etc., but there can be reasons to deviate from any given page limit (e.g. for interdisciplinary studies, where more background is to be covered, and which are discouraged by the current MSc regulations). For UG

students, it would be simply the supervisor to decide about this. The decision that an exception from the page limit is possible could be stated already in the project proposal, but possibly also later, in either case it would not lead to any additional organisational work except for the supervisor (and for the officer who would inform supervisors about this option). Also, it would be the supervisor's duty to inform the second marker about page limit changes. All markers (whether there is a change of the page limit or not) are expected to comment on conciseness and quality of the thesis in the marking forms, together with which any issues due to any changes of the page limit this would be discussed.

### **Stephen Renals**

I'm mildly in favour of a page limit, although I would suggest 40 pages with single line spacing.

### **Pavlos Andreadis**

There is no general good limit to the size of a dissertation. I would go as far as to say that engaging the question leads to worse work, as students get preoccupied with arbitrary criteria that do not in-and-of-themselves reflect the quality of work.

It is preferable that supervisors engage in depth with their students on the topic of what needs to be included in their thesis, what analysis is welcome, and what is superfluous. To teach conciseness. A problem here is that that requires frequent interaction with the student. If the situation is that that engagement is lacking, then I can see a purpose to the limit, though mostly as an attempt to reduce marking workload.

On the other side, students will generally feel more relaxed at the existence of a concrete goal, even one I consider detrimental to the final output. I think more widespread sharing of good dissertation examples and a few good and concise resources on writing up would serve the students better, and also equally alleviate stress.

If pressed to set a limit, I would consider either standardisation across project proposals such that an average good dissertation falls well below the limit, and/or explicitly include writing to specifications as an examinable criterion.

Let me add to this, that you might want to consider a course or set of support sessions for UG students in the likeness of the MSc courses: Informatics Research Review, Informatics Project Proposal. Generally, I feel these page limits are the wrong solution for the problem of bad writing.

### **Douglas Armstrong**

To be honest I really don't care whether the report is long or short or written in word or latex and I have no interest in spending my time doing word counts when marking. I just want to read it, mark it and get on with something else.

### **Ian Simpson**

I support the proposal from the link above and its extension to UG dissertations as well. I have seen various stages of its development and discussion at several TCs. If anything 40 pages is probably still too long. . .

### **Matthias Hennig**

Concise presentation is a useful skill everywhere, and we should encourage this. Page limits help students to think carefully about what they write. In the last round of MSc theses, all my students did very well (all received distinction grades), and I believe the page limit helped them write better. I always strongly encourage them to use at least two, ideally three weeks, just for writing, which allows for multiple iterations and better feedback from me.

### **Philip Wadler**

I read through all the comments, and was not moved by the arguments against.

In particular, I believe the rule is strongly advantageous for students. Setting a page limit is the best way to convey to students the value of concision; adding brevity to the marking criteria will be nowhere near as effective.

It seems to me worthwhile to have exactly the same rules of format, length, and so on for both MSc and UG projects.

I repeat my previous suggestion: It is common for conferences to have a page limit on submissions, but also to allow any length of appendices on the understanding that the reviewers are not required to read

the appendices. This might deal with the concern that sometimes a greater length is appropriate, while encouraging students to be concise.

### **Claudia Chirita**

I am not in favour of strict limits regarding this issue. However, I have just joined the School, and my opinion could be influenced by the more relaxed attitude towards restrictions on students' work that was adopted by the academic institutions in which I have previously worked and studied (smaller institutions with fewer students; the academic supervisors had the chance to work closer with their students, meaning that the issue of the length of their reports was just one of the details to be discussed and corrected, if needed, during the weekly exchange of e-mails or fortnight meetings). - Projects on topics in different fields require different amounts of background information, numbers of figures and tables, etc. One-sized box to fit them all seems inappropriate – be it 40 or 45 pages, I do not think that a hard constraint will fix the issue of an inadequate writing style. - It seems that a page limit affects the quality of the reports of our best students: either by forcing them to omit relevant things or writing important information in the appendix. In my experience, good students will be concise enough – they will just have more things to write about, because they would have done more work. So at least in some cases, I believe this is not a matter of conciseness. - And for those cases where it is a matter of conciseness, perhaps we should just mark this aspect as well. This means that we should provide proper guidance and training to all students on this matter. In the end, a too diluted report or one with irrelevant information could simply be given a low mark for the writing-quality criterion.

### **Don Sannella**

Additional remarks, referring to comments included in the draft of this paper dated 2020-02-11:

Several people say that writing concisely is an important skill. I agree that it is an important skill, as are many other skills that might be gained through doing a project, but it isn't referred to anywhere in the course description. If we think that it should be a learning outcome then probably BoS should approve a revision of the course description that includes it.

Some comments refer to conference/journal page limits. As I have said, I think writing for conference and journal publication is not relevant to UG project report writing. Again, writing for scientific publication is not mentioned in the course description. (It is *far* more relevant to PhD-level work. If this is used to justify a page limit for UG reports, doesn't the same logic say that we should put a page limit on PhD theses first?)

Some comments refer to padding added by students to increase page count. I find that it is pretty easy to skim over such content. Unnecessary verbosity, bad spelling and grammar, incomplete bibliography entries etc. can all be penalised under the "Quality of the dissertation" marking criterion.

I don't think current project students have been given any hint that there will be a page limit, so it can't be imposed for 2019/2020 projects in any case.

Finally, persistent feedback from project students and my experience as UG project coordinator for 7 years suggests that if we want to improve the way that projects are run then there are many other possible improvements that are more pressing than this change.

### **Cristina Alexandru**

In Human-Computer Interaction, writing up the setup and results of any kind of study with users takes up a lot of space, even if things are kept brief as our field requires a clear demonstration of methodological rigour and everything must be thoroughly justified. For MSc projects, the limit imposed since last year has resulted in my students agonising over this limit and spending most of their last few days before the deadline cutting down on wording and moving things that were useful to the appendices that markers may not even open. I don't think this was a good use of their time (e.g. they could have worked more on their conclusions and discussion in this time). Moreover, it has also resulted - for work with applicability after the lifetime of the project - in having information split into disparate places throughout the report, which makes it difficult to use it to continue the work or publish it. I totally agree with there being a limit, but strongly believe that this limit should be set to a very high value after which no reasonable marker would like to keep on reading. Otherwise, an average 'recommended' value should be set to help students- especially those who do not put enough effort in their projects- understand what is expected of them. There should also be very clear guidance about what happens if the highest limit is exceeded, and in this case I would go for simply failing the project, unless a system is put in place to automatically check that they have not added new content within the right page limit.