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Recipe for a Grant Application
Northumbria University
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Programme

- 9:30 Welcome and Coffee
The grant-writing game
- 10:00 What makes a good grant application: why you need a magic formula.
- 11:15: Coffee
- 11:30 The recipe
- 12:00 Putting together the ingredients:- sub-projects and key sentences 7-10.
- 13:00 Lunch
- 13:30 More ingredients:- key sentences 3-5.
- 14:00 More ingredients:- the perfect opening sentence.
- 14:45 Coffee
- 15:00 The final ingredients: key sentences 2 & 6.
- 15:30 Using Key sentences to structure a case for support.
- 16:15 Close

Preparation

The workshop is designed to start you working on an extremely efficient approach to writing a research project grant, such as a research council standard grant, that makes it possible to produce a case for support [in 2 weeks](#). The case for support is the central component of a grant application. All the rest of the information in the application should derive from the case for support.

If you have a fundable project in mind at the start of the workshop, you should have a rough draft of the skeleton of the case for support, in the form of [10 key sentences](#), by the end of the day. If you don't have a fundable project in mind at the start of the day you will practise the skills of writing the 10 key sentences with a dummy project.

Andrew Derrington

Research-Grant Writing

Andrew Derrington

November 25, 2016

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Part I.

What Makes a Good Grant Application?

1. A Good Grant Application is Designed for the Decision Process.

1.1. What do Funders want to Know?

Funders have four questions in mind

1. IS THE PROJECT IMPORTANT?
 - Does the project meet their priorities?
 - Direct Outcomes (discoveries)
 - Indirect Outcomes (training, career development, mobility...)
2. WILL THE PROJECT BE SUCCESSFUL?
 - Will the project produce the direct outcomes?
 - Will the outcomes be disseminated and put to use?
 - Will the project produce good indirect outcomes?
3. ARE THE APPLICANTS COMPETENT?
 - Are the applicants capable of carrying out the project?
 - Is the institution capable of supporting it?
4. WOULD A GRANT BE VALUE for MONEY?
 - Are the resources requested Necessary
 - and Sufficient
 - and Proportionate

1.1.1. The case for support must Contain the Right Information.

The application has to answer the four questions.

- IMPORTANCE (evidence)
 - Evidence about direct outcomes
 - * Literature review
 - Evidence about indirect outcomes
 - * Information about the project, institutions, and investigators
- SUCCESS (project details)
 - Research activities in relation to outcomes?
 - Impact and dissemination plans..
- COMPETENCE (evidence)
 - Evidence that the team has the skills to produce the outcomes.
 - * Publications demonstrating those skills (quality and authorship).
 - Evidence that the PI can deliver and the institution can support the project.
 - * Track record
 - * Assurances (e.g. facilities, mentorship for fellowships)
- VALUE for MONEY (project details)
 - Mention how grant resources will be used in the project.
 - Mention institutional resources needed for the project.

Which question do you start with?

- IMPORTANCE?
 - Pick an important question
 - * Start the literature review
 - *

That's how you write a zombie grant...

Always start with the competence question

- Design a project that you can deliver
 - Do you have appropriate quality publications showing ALL relevant Skills?
- Don't make the project much bigger than your past funded projects.
 - Big projects go to those who have too many little projects
 - Think about a cost ladder
 - * £10K / £30K/£100K /£300K/ £1M /£3M/ £10M
 - Don't try to jump to the top of the ladder

1.2. How Funders make decisions?

1.2.1. Committee

1.2.2. Referees

1.2.3. Committee Meeting

The Decision: who decides?

- Committee of successful researchers
 - Very busy people
 - Very successful
 - * Have their own grants
 - * And research groups
 - * And jobs
 - Not knowledgeable about your particular research area.
- May have 'user' representation
- Supported by secretariat

The Decision: what information do they have?

- Applications
 - Usually a set of 50-100 per meeting.
 - Arrive 3-6 weeks before meeting.
 - Everybody delays reading them as long as possible.
- Expert referees' reports
 - Written reports with evaluation and score.
 - Usually 2-5 per application
 - Usually arrive before the meeting but often after the applications
 - Often conflicting
- Designated members' reports
 - Oral report by 2 or 3 members who have read the application.
 - Usually lasts < 5 minutes

The Decision: what is the process?

- Members with conflict of interest leave the room.
- Designated members report on the proposal
 - Usually less than 5 minutes
 - Who, what, why, how, outcomes, strengths, weaknesses, summary of referees, how important and exciting, suggested score
 - One person may have to do this for 10 or more grants in a day.
 - Probably based on 30-60 minutes preparation.
- Discussion by all members of the committee.
 - Even though some of them may be reading it for the first time during the discussion.
 - * They will probably have read the summary beforehand.
- All members in the discussion can influence the score.
 - No matter how little they know.
 - And how little time they have spent reading your proposal.

The Decision: what are the implications

- Referees will analyse your grant in detail but:-
 - Most of the committee won't haven't read it.
 - The ones who have probably don't understand it.
 - There will be ~100 other applications.
- What requirements does this impose on the case for support?
 - Easy to analyse at a deep level (Referee).
 - Know what's in it by skimming it (Committee Member).
 - Learn the subject by reading the application (Committee Member).
 - Memorable and Distinctive (Designated Member).
- These properties need a magic formula
 - Key Statements
 - Layout
 - Tag Phrases
 - Repetition

2. Requirements

2.1. You want referees to find the detail easily

2.2. You need the committee to know what is in your application.

2.2.1. But most of them will not read it.

2.3. You need the committee to think they understand your research

2.3.1. But they won't know anything except what you tell them.

2.4. You need readers to remember your case for support

2.5. You need different versions of the story to be consistent.

3. The Case for Support as a Sales Pitch

Case for Support as Sales Pitch

- Introduction
 - Use it to tell them everything that is to come
- Background/Literature review
 - Explains how 3 research outcomes are really important.
 - These are the AIMS
- Description of Project/Methods/Research Plan
 - Describes the research and makes it clear that it will produce the 3 important outcomes.
 - These are the OBJECTIVES.
- Use the AIMS and OBJECTIVES to deliver the sales pitch.
 - Make them match each other.
 - * And make them match the structure and the wording of the case for support.
 - * Always try and give both, even if you are only asked for one.

4. The Magic Formula

Use Key Statements to Define the Application

10 Key statements define a standard grant-application

1 State the outcome (overall aim)

2 Say what makes the overall aim important

3,4,5 State (& justify) sub-projects outcomes (AIMS)

6 Summarise the project

7,8,9 Summarise the research activities in the sub-projects (OBJECTIVES) and their outcomes.

10 Say what will happen when research is done (Impact?)

- Use the key statements as the summary.
- Re-use the key statements to introduce the case for support
- Use a key statement to begin each subsection
- Then follow it with the detail
 - that convinces the referee

Use Space to Communicate with Skimmers and Speed-Readers

- Message on first line of paragraph (ASSERT then JUSTIFY)
 - First sentence of para ASSERTS (topic sentence)
 - Remainder of para JUSTIFIES
 - * This is where you cite literature
 - * This is how you avoid citing too much literature.
- White space above each paragraph
- Readers' eye movements land on blank lines.
 - Speed-readers will read first line of every paragraph.
 - Browsers will only read first lines.
 - Detail readers will know what to expect in each para

Teach Terminology with Tag Phrases

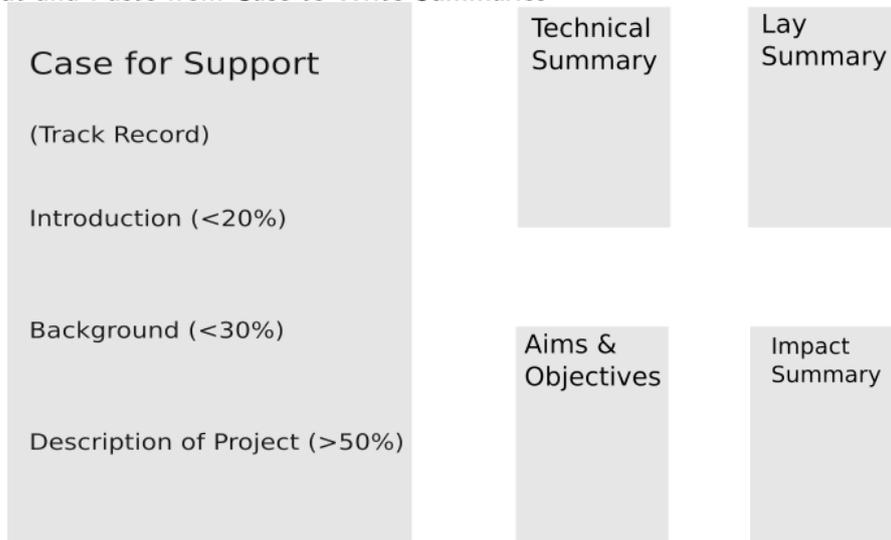
Key Sentence 3,4,5 'We need to know' + tag phrase because....

- We need to understand **the relationship between the performance of single neurons and the performance of the whole visual system** in order to establish the likely contribution of individual neurons to perception

Key Sentence 7,8,9 'We will do this sub-project in order to discover' + tag phrase

- We will record the responses of single neurons during perceptual tasks and calculate sensitivity functions for neural responses and for task performance in order to understand **the relationship between the performance of single neurons and the performance of the whole visual system.**

Cut and Paste from Case to Write Summaries



- Use key sentences and tag phrases
 - to provide common structure, and
 - to link
- Maintain structure and order

Resources

- Research Council Project Summaries
 - <http://gtr.rcuk.ac.uk>
 - ERC Summaries
 - * <https://erc.europa.eu/projects-and-results/erc-funded-projects>
 - Leverhulme Awards 2016
 - * https://www.leverhulme.ac.uk/sites/default/files/Awards_made/2016-03-RPG.pdf
- Helpful Blog Posts
 - How to construct a project
 - * <http://www.parkerderrington.com/build-the-project/>
 - The key sentences
 - * <http://www.parkerderrington.com/key-sentence-skeletons/>
 - How to get feedback
 - * <http://www.parkerderrington.com/ten-questions-to-get-feedback-on-a-grant-application/>

Part II.

Recipe for a Grant Application

5. Get the Raw Material

Questions to gather raw material.

Imagine you got your grant 6 months ago

1. For the current sub-project
 - a) What are you actually doing in this sub-project (40 words)?
 - b) What outcome will you get?
 - c) What makes this outcome important?
2. Repeat for the other 2 sub-projects
3. What will be the overall outcome of the project?
 - What makes the overall method inherently plausible?
 - Have you used the method to produce high quality outputs?
4. What is the significance of the overall outcome?
 - a) What will it allow us to do that we can't do now?
 - b) Who wants to do that?
5. Which priorities of the funder does the project meet, and how?
6. What must be done to maximise the benefit from the project?

Use your answers to write the key sentences.

6. Write the Key Sentences

Sentences 7, 8 & 9 and 3, 4 & 5 "We need to know"; "This will tell us"

- Sentences 7, 8 and 9: Summarise the research activities in one of your sub-projects and say what outcome the sub-project will produce.
 - Introduces a subsection of the description of the project.
 - * States an OBJECTIVE (and the aim it will deliver).
 - *We will [summarise research activities] and this will tell us + [subproject outcome].*
- Sentences 3, 4 and 5 'We need to know' say why we need the outcomes of the sub-projects.
 - Introduces a subsection of the Background
 - * States an AIM
 - * *We need to know+[sub-project outcome] + reason.*
- Rookie mistakes
 - Failing to mention research activities in 789
 - Describing the research activities instead of outcomes in 345

Sentence 6

- Sentence 6 introduces the introductory part of the description of the project.
 - Summarise the distinctive aspects of the project in fewer than 40 words.

Sentence 10

- Sentence 10 introduces your discussion of what will happen after the research is complete
- It will depend to a certain extent on whether the importance is academic or practical or both.
 - State in about 40 words what you will do to maximise the benefit from the project.

Sentence 1 & 2: The Elevator Pitch

1. Sentence 1 should have 3 parts:-
 - a) What the project will achieve, in terms meaningful to the whole committee.
 - b) The general research approach, to convince of success.
 - c) An example of your achievements using that approach, to convince of competence.
2. Sentence 2 says what it is that makes the outcome important. For example....
 - a) State the real-world problem it will help to solve.
 - b) Say what it will allow us to do that we can't do now.
 - c) Prepare to say which named priorities of your funder does it contribute to, and how?

7. Build the Skeleton Then Flesh it Out

Build the Structure with Key Sentences

1. Introduction - 10 Key Sentences
2. Background - sets out the need for the project
 - 1 State the overall outcome (GENERAL AIM)
 - Then add the detail
 - 2 Say what makes the outcome important
 - Then add the detail
 - 3,4,5 State (& justify) the research outcomes (AIMS)
 - Then add the detail
 - If you can't do this revise KS 7,8 & 9 until you can
3. Description of the Project
 - 6 Summarise the project
 - Then add the detail

7,8,9 Summarise the sub-project activities (OBJECTIVES) and state that they will achieve the aims.

- Then add the detail

10 State the dissemination plans

- Then add the detail

Part III.

Key Sentences 7-10 Exercise

8. Check You Have the Raw Material

You need to have done this exercise.

Imagine you got your grant 6 months ago

1. For the current sub-project
 - a) What are you actually doing in this sub-project?
 - b) What outcome will you get?
 - c) What makes this outcome important?
2. Repeat for the other 2 sub-projects
3. What will be the overall outcome of the project?
 - What makes the overall method inherently plausible?
 - Have you used the method to produce high quality outputs?
4. What is the significance of the overall project outcome?
 - a) What will it allow us to do that we can't do now?
 - b) Who wants to do that?
5. Which priorities of the funder does the overall project outcome meet, and how?
6. What must be done to maximise the benefit from the overall project outcome?

Use your answers to write the key sentences.

9. Create Key Sentences for the Skeleton

Sentences 7, 8 & 9 (This will tell us)

- Sentences 7, 8 and 9: Summarise the research activities in one of your sub-projects and say what outcome the sub-project will produce.
 - Introduces a subsection of the description of the project.
 - *We will [summarise research activities] and this will tell us + [subproject outcome].*
- Note
 - These sentences state the OBJECTIVES (and the aims they will deliver)
- Rookie mistakes
 - Talking about outcomes without mentioning the research activities that deliver them

10. Key Sentences 3, 4 and 5

Sentences 3, 4 & 5 (We need to know)

- Sentences 3, 4 and 5 'We need to know' say why we need the outcomes of the sub-projects.
 - Introduces a subsection of the Background.
 - *We need to know+[sub-project outcome] + reason.*
- Note
 - These sentences state the AIMS
- Rookie mistake
 - Saying that we need to do the research rather than saying we need to know the outcomes it will deliver.

Part IV.

Key Sentences 2&6 Exercise

11. Check You Have the Raw Material

You need to have done this exercise.

Imagine you got your grant 6 months ago

1. For the current sub-project
 - a) What are you actually doing in this sub-project?
 - b) What outcome will you get?
 - c) What makes this outcome important?
2. Repeat for the other 2 sub-projects
3. What will be the overall outcome of the project?
 - What makes the overall method inherently plausible?
 - Have you used the method to produce high quality outputs?
4. What is the significance of the overall project outcome?
 - a) What will it allow us to do that we can't do now?
 - b) Who wants to do that?
5. Which priorities of the funder does the overall project outcome meet, and how?
6. What must be done to maximise the benefit from the overall project outcome?

Use your answers to write the key sentences.

12. Write Sentences 2, 6 and 10

Sentence 2: What Makes the Overall Outcome Important

1. Sentence 2 says what it is that makes the outcome important. For example....
 - a) State the real-world problem it will help to solve.
 - b) Say what it will allow us to do that we can't do now.
 - c) Prepare to say which named priorities of your funder does it contribute to, and how?

Sentence 6: Project Overview

- Sentence 6 introduces the overview of the project.
 - Summarise the research approach of the project in fewer than 40 words.

Sentence 10

- Sentence 10 introduces your discussion of what will happen after the research is complete
- It will depend to a certain extent on whether the importance is academic or practical or both.
 - State in about 40 words what you will do to maximise the benefit from the project.

Part V.

The Perfect First Sentence

13. What should the first sentence say?

What should the first sentence say?

What is the first thing the reader wants to know?

- What can you tell the reader that will make them want to read on?
- They will have about 100 other applications they could be reading
- And a TV.

14. Gathering information for a first sentence

Gathering information for a first sentence

Ask your neighbour about their project. Try to understand and remember:-

- What will the project achieve?
- Why would that achievement be important?
- How will the project achieve it?
- Why would they be a good person to carry out the project?

After 3 minutes, change roles and repeat.

15. Writing the First Sentence

Write a first sentence

1. Imagine that you are trying to persuade a committee to invest in your neighbour's project.
 - Write a single sentence that will convince them to do so.
 - You have 2 minutes.
2. Imagine that you are trying to persuade a committee to invest in your project.
 - Write a single sentence that will convince them to do so.
 - You have 2 minutes.

16. Compare Sentences

Comparing Sentences

- Discuss the first sentences on your table
 - Pick the best.
 - Pick someone to read it.

17. Build the Structure with Key Sentences

Build the Structure with Key Sentences

1. Introduction - Key Sentences 1-10
2. Background - sets out the need for the project
 - 1 State the overall outcome (GENERAL AIM)
 - Then add the detail
 - 2 Say what makes the outcome important
 - Then add the detail
 - 3,4,5 State (& justify) the research outcomes (AIMS)
 - Then add the detail
 - If you can't do this rewrite KS 7,8 & 9
3. Methods / Description of the Project
 - 6 Summarise the project
 - Then add the detail
 - 7,8,9 Summarise sub-project activities (OBJECTIVES) and say they will achieve the AIMS.
 - Then add the detail
 - 10 State the dissemination plans
 - Then add the detail

Alternative Structure: Split Intro

1. Introduction to Background - Key Sentences 1-5
2. Background - sets out the need for the project
 - 1 State the overall outcome (GENERAL AIM)
 - Then add the detail
 - 2 Say what makes the outcome important
 - Then add the detail
 - 3,4,5 State (& justify) the research outcomes (AIMS)
 - Then add the detail
 - If you can't do this rewrite KS 7,8 & 9
3. Methods / Description of the Project
 - Overall aim and individual objectives (required by BBSRC)
 - Use Key sentences 1 and 6-10. Add detail to introduce project.
 - 7,8,9 Summarise sub-project activities (OBJECTIVES) and say they will achieve the AIMS.
 - Then add the detail
 - 10 State the dissemination plans
 - Then add the detail

Presenter



Andrew Derrington has in-depth experience of the research funding process. He obtained his first research grant, a Beit Memorial Fellowship for Medical Research, while he was writing his PhD. His research was continuously funded by fellowships, project and programme grants for the next 30 years. He served on research grant committees for The Science and Engineering Research Council, the Medical Research Council and the Wellcome Trust. His book, *The Research Funding Toolkit*, which he co-wrote with Jacqueline Aldridge, research manager at Kent Business School, is the definitive guide to grant writing for early career academics and research professionals. It is based on Andrew's analysis of how grants committees make funding decisions.

Andrew has worked in eight Universities including two in the world top ten. He has led a School of Biology in a Faculty of Science, Agriculture and Engineering. He has been Dean of a Faculty of Social Sciences and Pro Vice Chancellor of a Faculty of Humanities and Social Sciences.

Andrew has also worked as a journalist. Over several years he wrote two successful columns in the Financial Times. *The Nature of Things* covered science – from astrophysics to zoology. *Psych Yourself Up* was a guide to the different psychotherapies available in the UK.

Testimonials

Andrew blends easy authority and extensive experience with humour and approachability. The result is a workshop full of practical, memorable advice on how to compete more successfully for research funding.

Professor Peter Clegg, Institute of Ageing and Chronic Disease, University of Liverpool

I attended one of Andrew's workshops when I was a senior lecturer. The hands on advice about how to structure my applications in a really appealing fashion enabled me to win a grant of nearly £600K the next year. I still implement the advice that I received in that workshop, and pass it down to junior colleagues. I find that Andrew's advice has a high success rate!

Prof Theresa Gannon, University of Kent

I still use the tips you gave me for my successful Wellcome SRF application. Your advice on "12 key sentences" is spot-on and helps people focus on the aspects of the proposal that are critical to success instead of getting bogged down in reams of text.

Prof Mark Baxter, Mount Sinai School of Medicine

Andrew's grant-writing workshops teach you how to convince the world that it needs your research. They are the most useful training events I have ever attended. His advice about how to sell the big idea without compromising on the science was critical to the success of our £9.3 million ESRC application.

Prof Julian Pine, University of Liverpool

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