

Writing Research Grant Applications

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Programme

Things you Need to Know

- [Where to get a handout](#)
- [Are you ready to start?](#)
- [Why You Need a Magic Formula](#)
- [The Magic Formula](#)
- [Sub-projects](#)
- [Aims and Objectives](#)
- [Application-Writing Strategy](#)
- [Writing Guidelines](#)
- [Recipe to Create the Magic Formula](#)
- [How the structure works](#)

Exercises

- [Promise Sentence Exercise](#)
- [Implementation Sentences](#)
- [Problem Sentences](#)
- [Write the Project & Next Sentences](#)
- [Write the Global Sales Pitch](#)
- [Review Exercise](#)
- [Examples](#)

Introduction

This workshop is designed to start you working on a 'recipe' for an application for a research project grant, such as a research council standard grant. In the morning session we discuss the things you need to know and do before you start writing. In afternoon session you start writing and get feedback. Follow-on consultations may be available for you to seek further feedback or advice on any topic.

The things you need to know include the following:-

- Writing a grant application is very difficult unless you design a fundable project before you start. We will discuss how you can assess whether you have a fundable project.
- We will discuss how the case for support in a grant application can work as a sales pitch.
- We will discuss the way funding decisions are made and the unacknowledged requirements that the decision process imposes on the case for support in a grant application.
- We will discuss a 'magic formula' for a case for support that meets all these requirements.

- We will discuss a 'recipe', a step-by-step guide to constructing a case for support that conforms to the 'magic formula'.
- We will discuss how the requirements of a grant application dictate writing style, and some common academic writing habits that you need to eliminate from your grant applications.
- We will discuss how you can compose a set of aims and objectives that deliver your sales pitch.

If you have a fundable project in mind at the start of the day, you should have a rough draft of the skeleton of the case for support by the end of the day. If you don't have a suitable project in mind at the start of the day you can practise the skills of writing the 10 key sentences with a dummy project, or maybe you will be able to formulate something to work with in the morning.

There are two things you need to do to prepare for the workshop.

- First, it is essential for the exercises in the afternoon that you are prepared to write about a research project. Ideally this will be a project for which you intend to write a grant application but you can use a piece of research that you have already done. You can work with a previous grant application - even if it was awarded it will still provide you with suitable material for the workshop, but if it was rejected, even better.
- The workshop is aimed at mainstream UK project funders like the research councils (AHRC, BBSRC, EPSRC, ESRC, MRC, NERC), the Leverhulme Trust and the Wellcome Trust. It will help if you can identify your target funder before the workshop.
- It's not essential but it will help if you bring a laptop, tablet or smartphone on which you can type.

My delivery style is interactive, so feel free to ask questions throughout the day. On the day I will show you where you can download a handout that contains all the visual material to be used during the day, with clickable links to the main sections in the programme and to the full contents of my presentation, slide-by-slide.

Andrew Derrington

Contents

Programme	1
Introduction	1
Are you Ready to Start ***	5
Strategy ***	5
Should I use a successful application as an example to copy? ***	6
Writing Guidelines ***	6
Nominalisations *** **	7
Implementation ***	7
AIMS & OBJECTIVES ***	7
Why you need a magic formula ***	8
Grant Funders have Four Questions about the Project ***	8
The Importance Proposition *** **	9
The Success Proposition *** **	9
The Competence Proposition *** **	9
The Value for Money Proposition *** **	10
Which question do you start with? *** **	10
That's how you write a zombie grant...	11
The Decision *** **	11
What information do the committee have? *** **	12
The Decision: what is the process? *** **	12
Implications of the decision process *** **	13
The Magic Formula *** **	13
The Key Sentence Technique *** **	13
The Key Sentences *** **	14
Layout *** **	14
Tag Phrases *** **	15
Tag Phrases in Use *** **	15
Repetition ***	16
Resources ***	16
The Recipe ***	16
Implementation sentences *** **	17
Problem Sentences *** **	17
Project & 'Next' Sentences *** **	17
Elevator Pitch *** **	18
Build the Structure *** **	18
Standard Structure *** **	18
Alternative Structures *** **	19
ESRC Aims and Research Questions *** **	19
EPSRC Guidance *** **	19
Composite Titles to Comply with EPSRC Guidance *** **	21
Examples ***	21
Example Key Sentences *** **	21
Example Key Sentences continued *** **	21
Example Aims and Objectives *** **	22
Example Elevator pitch *** **	22
Example Tag Phrases *** **	22
How the Structure Works *** **	22
Write a Grant in 10 Steps *** **	23
Promise Sentence Exercise *** **	23
The Perfect Promise Sentence *** **	24
The Exercise *** **	24

Review Exercise ***	25
Promise sentence elements *** **	25
Importance sentence elements *** **	25
Problem sentence elements *** **	25
Implementation Sentence elements *** **	25
Project Sentence elements *** **	26
'Next' sentence elements *** **	26
Summaries pippin *** **	27

Are you Ready to Start ***

Do you have a fundable project?

...

- Break your project into three implementation sub-projects.
 - May be easier to assemble them from smaller parts

...

- Define the important problem that is solved by each sub-project.

...

- What does your project promise to achieve?
 - State the overall promise in terms intelligible outside your research discipline.
 - Often this is something you will contribute to, rather than achieve completely.

...

- What is the evidence that your project is of interest to your chosen funder?

...

- What have you done that would convince a sceptic that you can do the project?

...

If impact is part of the funding criteria:-

...

- Who will benefit most from your research?

...

- How will they benefit?
 - What will you do to ensure that they benefit?
 - What is their involvement in the development of the project?

...

Your application will need to answer all these questions.

Strategy ***

Your strategy must accommodate rejection

- Most well-written grant applications get rejected.
- Rejection can be a devastating experience

...

Minimise the pain: write 5 or 6 applications

- Never get down to your last rejection.
- If you get 6 rejections, it's time to develop a new set of ideas.

...

How to turn a small number of ideas into a large number of grant applications

- Different Outcomes? (Derrington method)
- Different Datasets? (Dr Pig method)

- Different collaborators/consortia/industrial partners
 - Your central skill contributes to different questions.
 - Check collaborators before you commit
- Different Approaches to Answer the same Question?
- Different Combinations of Sub-Projects

Should I use a successful application as an example to copy? ***

- Most successful applications are very badly written
 - Especially those from senior academics.

. . .

Before you follow an example, test it:- find one-line answers to the following questions:-

1. What is the overall aim of the project?
2. What makes the project important?
3. What are the overall research methods?
4. State the 3 or 4 main problems the project needs to solve
 1. Why is each one important?
 2. How will the project solve the problem?
5. What will happen after the project is done?

. . .

- If finding and writing down those answers takes more than 10 minutes, the answer is “No”.

Writing Guidelines ***

- **Assert, then justify:** make a statement, then explain it
 - **Key sentence** at the start of every section
 - Start every paragraph with the ‘**Topic Sentence**’

. . .

- No Synonyms: **pick the best term and use it repeatedly.**
- Create **tag phrases**
- No Homonyms: ambiguity is your enemy.
- **Short paragraphs** (~6 paras per page)
- Short Sentences (easier if you avoid adverbs, adjectives and **nominalisations**)
 - And **know when to use the passive** (e.g. “Rules were made to be broken.”)
- Use Headings and Sub-Headings
 - **Re-use phrases from the key sentences**
- Use similar structures for sentences with similar function.
- Avoid value claims (state evidence instead)
- Bullet lists good, lists inside paragraphs bad.
- NIUTEIISPOU is one of the **seven deadly sins**

. . .

- Useful Software (if you don't like the tools in MS Word)
 - **The Writers' Diet**
 - **HemingwayApp** also available as a text editor.

Nominalisations * ****

- A nominalisation is a noun phrase constructed from a verb,
 . . .
- which can be used with a general purpose verb to create a flabby, pompous, long-winded way of saying something simple.

. . .

- We will investigate X
 - We will carry out an investigation into X
- We will analyse
 - We will undertake an analysis of

. . .

- You can make it more pompous and long-winded by using a few adjectives to describe the nominalisation:-
 - We will undertake a detailed, rigorous and searching analysis of ...

Implementation *****Sub-projects**

Break your project into components (sub-projects) to make it easier to explain.

- Sub-projects can be sequential
- Or parallel

. . .

Each sub-project solves a problem

- Easier if you design the problems after the sub-projects

. . .

Background explains the problems

- Background comes before project description
 - It defines the criteria for success - solving the problems
 - It convinces the reader that the project will be successful

. . .

- 3 is the perfect number of sub-projects, but 4 is OK.

. . .

- Don't create a hostage situation.
 - A sub-project that cannot be done unless a previous sub-project produces a result that it is not certain to produce.

AIMS & OBJECTIVES ***

. . .

- Nobody is sure what Aims & Objectives mean, so you can write anything that helps your case as your aims and objectives.

- What would you write?

. . .

Why wouldn't you just use the key sentences?

- Overall Aim
 - **Promise + Importance** sentences
- Specific Aims
 - 3 **Problem** sentences . . .
- Overall objective or intro to objectives
 - **Project** Sentence
- Specific Objectives
 - **Implementation sub-project** sentences
 - Maybe add the **Next** sentence as a final objective

. . .

No Synonyms

- **Problems** = Aims = Research Questions = Hypothesis Tests
- Sub-projects = Work Packages = Objectives
- If the funder makes you use more than one term, **tell the reader they mean the same thing.**

Why you need a magic formula ***

The Case for Support must persuade the funder to fund your project.

1. **What do funders want?**
 - This tells you what information the Case for Support must include.
2. **How do funders make decisions**
 - This tells you the requirements for the Case for Support.
 - **You need a magic formula to meet them.**

Grant Funders have Four Questions about the Project ***

1. **IS THE PROJECT IMPORTANT** (to Them)?

. . .

- Direct Outcomes (discoveries)
- Indirect Outcomes (training, career development, mobility...)

2. **WILL THE PROJECT BE SUCCESSFUL?**

. . .

- Will it produce the direct outcomes?
 - Will they be put to use?

3. **ARE THE APPLICANTS COMPETENT?**

. . .

- Can they carry out the project?
 - Can their institution support it?

4. **WOULD A GRANT BE WORTH FOR MONEY?**

. . .

- Are the resources requested Necessary, Sufficient, and Proportionate (for the project)

The Importance Proposition *** **

- How you convince the reader your project is important to the funder
- Content (Introduction & Background)
 - Literature review gives evidence for importance of direct outcomes
 - Evidence about indirect outcomes in details of project, institutions, & investigators

Organisation

- Global Sales Pitch: (Elevator Pitch) **“The Project is Important”**
- First two key sentences . . .
 - Make a convincing promise about what the project will deliver
 - Say what makes it important (to the funder).

The Success Proposition *** **

- How you convince the reader your project will be successful.
- Content: (background & description of project)
 - Will research activities deliver outcomes?
 - Impact and dissemination plans.

Organisation

- Background and description of project together create a detailed sales pitch
- ...
- Background describes three important **problems** the project has to solve to deliver its promise
 - make solving the problems the criteria for success
 - problems can be expressed as RESEARCH QUESTIONS, AIMS or HYPOTHESES
- ...
- **Implementation** (Methods/Research Plan)
 - Describe the research in each of 3 sub-projects
 - Make it clear that the sub-projects will solve the problems.
 - Sub-projects can be referred to as “OBJECTIVES” or “WORK PACKAGES”.
- Always match the background to the research plan, even when they are entries on a form.

The Competence Proposition *** **

- How you convince the reader that you are competent
- Content: (background, description of the project, track record, cv, publication list)
 - Evidence that the team has the necessary skills in publications (quality and authorship).
 - Evidence that PI and institution can deliver the project in track record & facilities.

Organisation

- Mention of all relevant previous work and all relevant facilities, infrastructure and other support in:-
 - Track record and Environment section
 - CV
 - Background to case for support

The Value for Money Proposition * ****

- How you convince the reader your project is value for money
 - Especially important if your resource package is unusual
 - * **NEVER try to compete on price**
- Content: (description of the project, justification of resources)
 - Evidence that the resources requested will be used
 - Evidence that the resources requested are the most appropriate of their kind and good value
 - Evidence that the institution is contributing

Organisation

- Mention resources (grant and institutional) in the description of how the research will be done
- Justify choices and costs in Justification of Resources section

Which question do you start with? * ****

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

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



- If the description of the research is less than 50% of the case for support it is probably a 'zombie'.

The Decision *** **

...

- Who decides?

...

- Committee of successful researchers

...

- Not knowledgeable about your particular research area.
 - Probably not very interested

...

- Too busy to read your grant carefully

- Demanding jobs
- Research groups

...

- May have 'user' representation
- Supported by secretariat

What information do the committee 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? * ****

- 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.

Implications of the decision process *** **

...

Referees will analyse your case for support in detail but:-

- Most of the committee won't read it.
- The ones who do read it probably won't understand it.
- There will be about 100 other applications.

...

This imposes certain requirements on the case for support.

...

- The case for support must convince the reader
 - that the project is important, and
 - will be successful

...

- It must be easy:-
 - To analyse the case for support (Referee).
 - To know what's in it by skimming it (Committee Member).
 - * Importance
 - * Success
 - To grasp the big picture and remember the details (Designated Member).

...

Perhaps you need a [Magic Formula](#)

The Magic Formula *** **

Components

1. [The Key Sentence Technique](#)
 - [Key Sentences](#)
2. [Layout](#)
3. [Tag Phrases](#)
4. [Repetition](#)

The Key Sentence Technique *** **

...

- [Create a skeleton of 'key sentences' that state the main points.](#)

...

- What does your project **P**romise?
- what makes that promise **I**important,
- what **P**roblems do you have to solve (there will be 3)
- introduction to your **P**roject in one sentence
- **I**mplementation (3 sub-projects that solve the 3 problems)
- What happens **N**ext

- [Here's how you write them](#)

...

- Use the key sentences as a framework for writing the Case for Support,
 - Each key sentence starts a section of the Case for Support
 - * Rest of the section develops the point

...

- Use the key sentences as the [Summary](#)

...

- and as the [Introduction](#).

...

- Every Reader gets the same picture, no matter what they read
 - Summary only
 - First few lines of the case for support
 - Every word of the case for support.

The Key Sentences *** **

Ten Key Sentences to Make the Case for your Project

- 1 **Promise** What will your project do, and why should we believe you?
- 2 **Importance** What makes your project important?

...

- 3-5 **Problem**_{1,3} State a problem and, if necessary, say why it's important.

...

- 6 **Project:** Introduce the project.

...

- 7-9 **Implementation**_{1,3} Describe a sub-project and say what problem it solves.

...

- 10 Says what happens **Next**
 - Depends on the funder and on what makes the project important.

...

- 11- Some funders require section on track record & environment
 - Add a key sentence saying what achievement demonstrates each important skill
 - And a key sentence describing each major component of infrastructure

PIPPIN "An excellent person or thing" *Oxford English Dictionary*

Layout *** **

Text layout allows skimmers and speed-readers to pick up the detail.

...

1. 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.
2. 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

Tag Phrases *** **

Use the same phrase to state the problem in the **implementation** key sentence and the **problem** key sentence.

...

- Establishes the success proposition - the sub-project solves the problem
 - Teaches your terminology
 - Creates a slogan

...

Problem Key Sentence

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

...

Implementation Key Sentence

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

...

- Key sentences and tag phrases start off messy and long-winded, like these.
 - You have to edit them to make them effective.

Tag Phrases in Use *** **

- Start of a **Problem** sub-section in the background.

The perceptual capabilities of single neurons in cortical area V1

We need to know **the perceptual capabilities of single neurons in cortical area V1** in order to establish the potential contribution of V1 to perception. The potential contribution can be assessed using a range of perceptual tasks, such as visual pattern discrimination, object discrimination, and motion-detection. For any such task, we can infer the contribution of cortical area V1 to that task from the relationship between the perceptual capabilities of single neurons and the perceptual capabilities of the individual.

- Description of corresponding **Implementation** Sub-project

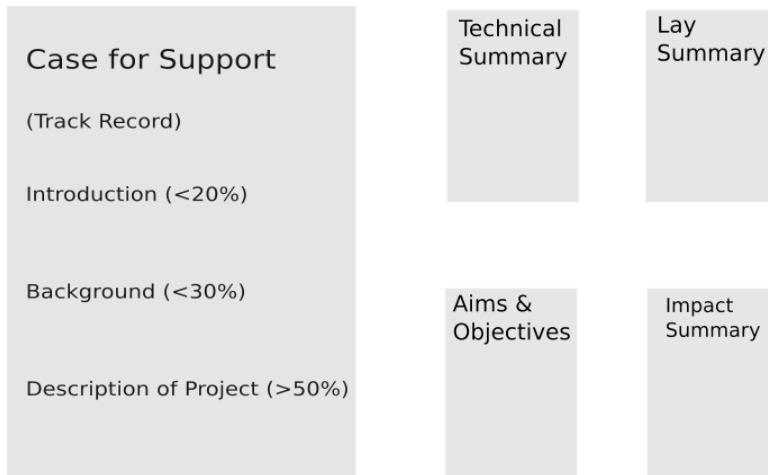
Measuring the perceptual capabilities of single neurons in cortical area V1

We will measure neural responses as functions of stimulus strength during perceptual tasks in order to calculate **the perceptual capabilities of single neurons in cortical area V1**. Stimuli from a set that covers a range of strengths will

be presented repeatedly in random sequences under computer control. The computer will record responses during the presentations, and during equivalent periods when no stimulus is presented, for off-line spike sorting and analysis.....

Repetition ***

Re-cycle Text From Case for Support



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

Resources ***

What's been funded?

- [Research Council Project Summaries](#)
 - <http://gtr.rcuk.ac.uk>
- [ERC Summaries](#)
- [Leverhulme Awards 2016](#)

Advice on writing:- www.parkerderrington.com/blog

- [How to construct a project](#)
- [The key sentences](#)
- [Catalogue](#)

The Recipe ***

Process

- Make sure you have a fundable project
- Prepare your Ingredients
 - Implementation sentences

- Problem Sentences
- Project & 'Next' Sentences
- Elevator Pitch
- Build the Case for Support
- Write a Grant in 10 Steps

Implementation sentences *** **

Describe a sub-project and say what problem it will solve.

We will measure neural responses as functions of stimulus strength during perceptual tasks in order to calculate the perceptual capabilities of single neurons in cortical area V1.

- There will be three.
- The sub-projects will solve the three **problems** in order.
 - Define the sub-projects before you define the **problems**
- Common mistakes
 - Failing to describe research
 - Failing to say what problem it solves
 - Forgetting to use the same description as the **problem** sentence.
 - Changing the syntactic structure unnecessarily
 - Too long
- Examples

Problem Sentences *** **

State a research problem (& why it's important)

We need to know the perceptual capabilities of single neurons in cortical area V1 in order to establish the potential contribution of V1 to perception.

- There will be three
- They will state the problems that are solved by the **implementation** sub-projects
- Common mistakes
 - Different statement of the research problem from that in the corresponding **implementation** sentence
 - Describing the sub-project instead of stating the problem
 - Changing the syntactic structure unnecessarily
 - Too long
- Examples

Project & 'Next' Sentences *** **

Project

- **Project** sentence summarises the project in whatever way is appropriate
- If they only read 1 sentence about your project, it will be this one.
- Summarise the project or state its scope.
- Go beyond the **promise** sentence

Next Sentence

- 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.
 - e.g. State in about 40 words what you will do to maximise the benefit from the project.

Elevator Pitch *** **

Also known as “Global sales pitch”; makes the Importance Proposition

- **Promise** Sentence should have 3 parts:-
 1. What the project aims to achieve, in ‘big picture’ terms (too vague for insiders).
 2. What you actually expect to achieve (too detailed for outsiders).
 3. A reference to your achievements using similar methods, to show you are competent.

...

This project aims to identify a potential treatment for stroke by using an in vitro brain slice model to optimise synthetic metabolic inhibitors discovered in my laboratory.

...

- **Importance** sentence says what it is that makes the outcome important. For example...
 1. Quantify the real-world problem it will help to solve.
 2. Say what it will allow us to do that we can't do now.
 3. Prepare to say which named priorities of your funder it contributes to, and how?

...

Caring for the 1.2 million UK stroke survivors costs over £1.7 billion a year.

Build the Structure *** **

- Standard Structure: Key sentences as Introduction and Skeleton
- Variations
- ESRC Aims and Research Questions
- EPSRC Guidance
- Suggested Structure for EPSRC

Standard Structure *** **

1. Introduction - All the Key Sentences - **Write it Last.**
 - **Problem** key sentences can be research questions, aims or hypotheses.
 - **Implementation/sub-project** (and **Project** and **Concluding** key sentences) can be objectives.
2. Background - four sections - sells the project - **Write it after the Methods.**
 - **Importance** section explains what makes the project important.
 - **Problem** section x 3, each explains one of the problems/aims/research questions.
3. Methods - five sections - describes the Project - **Write it First**

- **Project** Describe the project as a whole.
 - **Implementation / Sub-project section x 3** Each describes a sub-project and shows that it solves the corresponding **problem**.
 - **'Next'** Say what will happen after the project (impact?). Then add detail.
4. Track record (required by MRC, BBSRC, EPSRC, NERC); create your own key sentences - **Write it anytime after the Methods**

Alternative Structures *** **

Some funders specify requirements that appear to be incompatible with the standard structure, but these can usually be addressed by one or other of two approaches.

...

1. Moving sub-components around

- e.g. BBSRC require you to introduce the 'Research Plan and Methodology' with the Overall Aim & Specific Objectives. Can do this by having separate introductions for the Background & Methods sections. Or by double-naming the introduction, see below

...

2. Using composite titles to avoid repetition

- e.g. ESRC ask both for aims and for research questions: [call each aim a research question](#).
- EPSRC ask for 4 sections covering same topic 'Background', 'National Importance', 'Academic Impact' and 'Research Hypotheses & Objectives' [solution here](#)
- BBSRC problem (above) can be solved by writing the Aims and objectives as subsections of the introduction.

ESRC Aims and Research Questions *** **

- ESRC guidance suggests separate subsections for aims and research questions:-
 - **The introduction should set the aims and objectives of the study in context. It should briefly sketch**
 - **The detailed research questions to be addressed should be clearly stated.**
- It is dangerous to give the impression that research questions and aims refer to different goals.
- This is a problem

...

- Readers will be confused if you give the impression that research questions and aims refer to different research goals.

...

- Make it clear that the research questions and the aims are the same; e.g.
 - ["We have three research aims which are expressed in our three research questions"](#).

...

- From that point on, do not switch: pick one of the terms and use it consistently.

EPSRC Guidance *** **

Previous Track Record (up to 2 sides)

Description of proposed research and its context (6 sides)

- Background
 - Introduce topic and explain academic and industrial context
 - Demonstrate understanding of related work
- **National importance**
 - Contribution to other disciplines, economy & society.
 - Long term effects; relation to national strategic needs.
 - Fit with UK research & EPSRC's [portfolio, research areas & strategy](#).
- Academic Impact
 - Describe academic impact
 - Explain collaborations; justify Visiting Researchers
- Research Hypothesis and Objectives
 - Set out your research idea or hypothesis
 - Explain why the proposed project is novel and timely
 - Identify the overall aims of the project, and the measurable objectives
- Programme and Methodology
 - Detail and justify research methodology
 - Describe the work programme & milestones for each member of the team,
 - Explain how the project will be managed.

Composite Titles to Comply with EPSRC Guidance *** **

1. **Track Record**
 - If you don't need 2 pages for your track record, put pilot data in the track record section.
2. **Background** (5 sections)
 - i. **Aim, Research Hypothesis and Objectives.** This is a standard introduction that uses all the key sentences in order.
 - ii. **National Importance and Academic Impact section.** This and everything that follows is the same as the standard structure. It uses the **Importance** Sentence followed by details that cover the topics specified by EPSRC.
 - iii. -v. **Problem** sections as for standard structure
2. **Programme and Methodology.** (5 sections)
 - i. **Project** sentence & subsection;
 - ii. -iv. **Implementation sub-projects** 1-3
 - v. **'Next'** section - Must include milestones and explain how the project will be managed.

Examples ***

- Key Sentences 1-5 (Background)
- Key Sentences 6-10 (Project)
- Aims and Objectives
- Elevator Pitch
- Tag Phrases

Example Key Sentences *** **

Key Sentences 1-5 Give the background and context

- **1 Promise** The project aims to enable improvements in training social workers by analysing the role of writing in social work practice using an integrated ethnographic and linguistic methodology.
- **2 Importance** Social care costs 27 billion pounds annually and problems arising from errors in writing increase the risk of harm to service users.
- **3 Problem₁** We need to know the writing practices of professional social workers.
- **4 Problem₂** We need to know the institutional writing demands of contemporary social work.
- **5 Problem₃** We need to understand how writing practices shape professional social work.

Example Key Sentences continued *** **

Key Sentences 6-10 describe the project

- **Project** Our methodology integrates ethnographic description, discourse analysis and tracking the production of texts.
- **Implementation₁** We will carry out an ethnographic study, in order to characterise the writing practices of professional social workers
- **Implementation₂** We will analyse texts and explore how writing is managed alongside other commitments to characterise the institutional writing demands of contemporary social work.
- **Implementation₃** We will use discourse analysis and track texts relating to specific cases to understand how writing practices shape professional social work.
- **'Next'** We will develop effective writing practices that will improve training and practice of social work.

Example Aims and Objectives *** **

- Our project has three aims, which are to answer our research questions:-
 1. What are the writing practices of professional social workers?
 2. What are the institutional writing demands of contemporary social work?
 3. How do writing practices shape the nature of professional social work?

...

- Our project will answer the three research questions by pursuing the following three objectives:-
 1. We will carry out an ethnographic study, in order to characterise the writing practices of professional social workers
 2. We will analyse and quantify texts and explore how writing is being managed alongside other commitments in order to characterise the institutional writing demands of contemporary social work.
 3. We will use discourse analysis and track the trajectories of texts relating to specific cases in order to understand how writing practices shape professional social work.

Example Elevator pitch *** **

Promise

- The central aim of the project is to enable improvements in training and practice of social work by analysing the role of writing in social work practice using an integrated ethnographic and linguistic methodology.

Importance

- Social care costs 27 billion pounds annually in the UK and problems arising from errors in writing increase the risk of harm to service users.
- [Check for Tag Phrases.](#)

Example Tag Phrases *** **

- Our three aims are to answer the following three research questions:-
 1. What are **the writing practices of professional social workers?**
 2. What are **the institutional writing demands of contemporary social work?**
 3. How do **writing demands and practices shape professional social work?**
- Our project will answer the three research questions by pursuing the following three objectives:-
 1. We will carry out an ethnographic study, in order to characterise **the writing practices of professional social workers.**
 2. We will analyse and quantify texts and explore how writing is being managed alongside other commitments in order to characterise **the institutional writing demands of contemporary social work.**
 3. We will use discourse analysis and track the trajectories of texts relating to specific cases in order to understand **how writing demands and practices shape professional social work.**

How the Structure Works *** **

(Key Sentence Names are Bold Font)

...

1. **Introduction** (summarises whole case for support using all key sentences)
 - **Promise, Importance, Problem₁₋₃, Project, Implementation₁₋₃ & 'Next'**

...

2. **Background** (Literature review=> **Promise** is Important; Solving **problems** is criterion for success)
 - **Importance:** Sells **promise** => *IMPORTANCE PROPOSITION*
 - **Problem₁:** Explains **Problem₁**
 - **Problem₂:** Explains **Problem₂**
 - **Problem₃:** Explains **Problem₃**

...

3. **Methods / Research Programme** (Project is value for money & will be successful)
 - **Project:** Introduces the project.
 - **Implementation₁:** How sub-project 1 will solve **Problem₁**
 - **Implementation₂:** How sub-project 2 will solve **Problem₂**
 - **Implementation₃:** How sub-project 3 will solve **Problem₃**
 - Mention resources used in research => *VALUE for MONEY PROPOSITION*
 - Explains how Project solves **Problems** => *SUCCESS PROPOSITION*
 - **Next:** Says what happens after the project.
 - Expectations depend on funder & on importance proposition.

...

4. Some funders require section on track record & environment
 - Track record demonstrates all necessary skills
 - Environment describes all necessary infrastructure & support
 - => *COMPETENCE PROPOSITION*

Write a Grant in 10 Steps *** **

1. You can start as soon as you have thought of a viable project.
2. Check that the project is suitable for your chosen funder and funding scheme.
3. Divide the project into sub-projects and assemble the information you need to describe each and to explain its importance.
4. Initiate the costing process & institutional approvals in parallel with the writing.
5. Draft your Key sentences in this order:-
 - i. **Implementation** sentences.
 - ii. **Problem** sentences.
 - iii. **Project** and **'Next'** Sentences
 - iv. **Importance** sentence.
 - v. **Promise** sentence

If you need a lay summary, begin working to prepare and test it.
6. Draft the case for support.
7. Add any funder-specific information or sections to the case for support.
8. Draft any required information on the project timetable and project management.
9. Assemble the budget and write the Justification of Resources
10. Finalise any attachments and summaries you need to submit.

Promise Sentence Exercise *** **

Why is the first sentence important?

...

- It has to be good enough to want to read your application
- They will have 99 other applications.

– They know most of them are headed for the shredder.

- They also have a TV.
- What will make them want to read your application?

...

- A plausible and attractive promise
 - What are the elements?

...

1. A project that is likely to advance an important area of knowledge.
2. A project that is likely to be successful.
3. Evidence that you are competent to carry out the project.

The Perfect Promise Sentence *** **

Three Elements

...

1. What the project will achieve, in 'big picture' terms.
 - A project that is likely to advance an important area of knowledge.

...

2. How it will achieve it (a more specific and detailed statement of the goal).
 - A project that is likely to be successful.

...

3. A reference your achievements using similar methods.
 - Evidence that you are competent to carry out the project.

The Exercise *** **

1. Interview your neighbour (3 mins)
2. Swap roles and interview again (3 mins)
3. Write a promise sentence for your neighbour's project (2 mins)
4. Write a Sentence for your own Project (2 mins)
5. Optimise and discuss.

...

The information you need to gather in your interview is:-

1. What the project will achieve, in 'big picture' terms.
2. How it will achieve it (a more specific and detailed statement of the goal).
3. An example of your achievements using that approach.

eg This project aims to identify a potential treatment for stroke by using an in vitro brain slice model to optimise synthetic metabolic inhibitors discovered in my laboratory.

Review Exercise ***

- Take a summary from <https://erc.europa.eu/projects-and-results/erc-funded-projects>
 - We have taken [this one](#)
- Find the **promise** sentence or its elements.
 - Can you improve it?
- Find the **importance** sentence or its elements.
 - Can you improve it?
- Identify or write a set of **implementation** and **problem** sentences for the project.
- Identify or write a **project** sentence
- Identify or write a **'next'** sentence

Promise sentence elements * ******Cities in Global Financial Networks: Financial and Business Services and Development in the 21st Century**

- The project will provide a robust evidence base crucial in shaping future rounds of investment by and in financial and business services, and policies towards financial and business services by governments and other organisations.
- In doing so, we will develop a new theoretical framework, called the Global Financial Networks, which positions financial and business services and their networks in the broader economy.

from [this summary](#)

Importance sentence elements * ****

- Financial and business services, including law, accounting, and business consulting, have been one of the most dynamic sectors of the world economy, with a fivefold rise in real value added since 1980.
- Although financial and business services are central to the processes of globalisation, financialisation, urbanisation and development, our understanding of the sector in the context of tumultuous changes of the early 21st century is partial.
- We urgently need groundbreaking frontier research to better understand the nature and dynamics of financial and business services, and their implications.

from [this summary](#)

Problem sentence elements * ****

1. How have the financial and business services firms and centres been affected by the global financial crisis and the Eurozone crisis?
2. How are they changing in response to new financial regulation, the expected shift of economic activity to the Asia-Pacific region, and the digital revolution?
3. What are the impacts of financial and business services on urban, regional, and global development?

from [this summary](#)

Implementation Sentence elements * ****

This project is designed to address this challenge by focusing on three objectives:

1. mapping the financial and business services sector and its transactional networks worldwide;

2. analysing strategies of financial and business services firms, as well as policies towards financial and business services and their institutional environments in cities;
3. explaining the impacts of financial and business services, their strategies, and place-specific factors on growth, stability, and inequality at urban, regional, national and global level.

from [this summary](#)

Project Sentence elements * ****

Using a mixed-methods approach, we will document the development of financial and business services and their consequences, cutting through the hype of financial centre indices, and through the fog of ideologically charged debates on the virtues and vices of the financial sector.

from [this summary](#)

'Next' sentence elements * ****

One of the outcomes of the project will be the world's first ever atlas of finance.

from [this summary](#)

Summaries **pippin *** ****

Cities in Global Financial Networks: Financial and Business Services and Development in the 21st Century

Financial and business services (FABS), including law, accounting, and business consulting, have been one of the most dynamic sectors of the world economy, with a fivefold rise in real value added since 1980. Although FABS are central to the processes of globalisation, financialisation, urbanisation and development, our understanding of the sector in the context of tumultuous changes of the early 21st century is partial. How have the FABS firms and centres been affected by the global financial crisis and the Eurozone crisis? How are they changing in response to new financial regulation, the expected shift of economic activity to the Asia-Pacific region, and the digital revolution? What are the impacts of FABS on urban, regional, and global development? We urgently need groundbreaking frontier research to better understand the nature and dynamics of FABS, and their implications. This project is designed to address this challenge by focusing on three objectives: mapping the FABS sector and its transactional networks worldwide; analysing strategies of FABS firms, as well as policies towards FABS and their institutional environments in cities; explaining the impacts of FABS, their strategies, and place-specific factors on growth, stability, and inequality at urban, regional, national and global level. In doing so, we will develop a new theoretical framework, called the Global Financial Networks, which positions FABS and their networks in the broader economy. Using a mixed-methods approach, we will document the development of FABS and their consequences, cutting through the hype of financial centre indices, and through the fog of ideologically charged debates on the virtues and vices of the financial sector. One of the outcomes of the project will be the world's first ever atlas of finance. The project will provide a robust evidence base crucial in shaping future rounds of investment by and in FABS, and policies towards FABS by governments and other organisations.

More summaries at <https://erc.europa.eu/projects-and-results/erc-funded-projects>

##Summaries, con'td

Context, Identity and Choice: Understanding the constraints on women's career decisions

There has been vast improvement in workplace gender equality, but there remain marked differences in the roles in which women and men work. Explanations for this inequality have focused on the barriers women face. However, as women begin to enter male-dominated roles, a new explanation has arisen: that remaining gender inequality must reflect fundamental differences between women and men, including differences in (a) ambition and desire for power, (b) needs for work-life balance, and (c) willingness to take career risks. Central to this analysis is the assumption that the glass ceiling is broken and thus inequality must be due to women's active choices. This explanation downplays the fact that social context continues to be a barrier to women's success and places responsibility for gender inequality on women themselves. Indeed, there has arisen the suggestion that gender equality necessitates women overcoming 'internal obstacles', 'leaning-in' and altering their choices (Sandberg, 2013), rather than challenging the status quo. I argue that diametrically contrasting structural barriers with women's choices is unhelpful. Instead, I suggest that women's choices are shaped and constrained by the gendered nature of organisational and social contexts and how women see themselves within these contexts. I propose a programme of research, across 3 integrated streams, that investigates how social and organisational structures define identities and constrain women's choices in relation to ambition, work-life balance, and career risk-taking. I have four key objectives: (1) to clarify how organisational and social contexts define identity and constrain women's choices, (2) to use an interdisciplinary, multi-methodological approach, to produce innovative theory and data, (3) to work collaboratively with stakeholders, and (4) to inform practical interventions designed to facilitate the increase of women's participation in hitherto male-dominated roles.

Crosslocations in the Mediterranean: rethinking the socio-cultural dynamics of relative positioning

The Mediterranean, a key socio-cultural, economic and political crossroads, has shifted its relative position recently, with profound effects for relations between the peoples associated with its diverse parts. Crosslocations is a groundbreaking theoretical approach that goes beyond current borders research to analyse the significance of the changes in relations between places and peoples that this involves. It does

this through explaining shifts in the relative positioning of the Mediterranean's many locations – i.e. the changing values of where people are rather than who they are. Approaches focusing on people's identities, statecraft or networks do not provide a way to research how the relative value of 'being somewhere in particular' is changing and diversifying. The approach builds on the idea that in socio-cultural terms, location is a form of political, social, economic, and technical relative positioning, involving diverse scales that calibrate relative values (here called 'locating regimes'). This means locations are both multiple and historically variable, so different types of location may overlap in the same geographical space, particularly in crossroads regions such as the Mediterranean. The dynamics between them alter relations between places, significantly affecting people's daily lives, including their life chances, wellbeing, environmental, social and political conditions and status. The project will first research the locating regimes crossing the Mediterranean region (border regimes, infrastructures; digital technologies; fiscal, financial and trading systems; environmental policies; and social and religious structures); then intensively ethnographically study the socio-cultural dynamics of relative positioning that these regimes generate in selected parts of the Mediterranean region. Through explaining the dynamics of relative location, Crosslocations will transform our understanding of trans-local, socio-cultural relations and separations.

Democratic Secrecy: A Philosophical Study of the Role of Secrecy in Democratic Politics

Transparency in politics is the mantra of democratic governance. Should state secrecy, such as classified intelligence programs or closed-door political bargaining be abolished? Despite its revered status, many feel that complete transparency would undermine effective functioning of governments. Take the public responses to the Wikileaks disclosures: many of the disclosures were assessed favorably, but few people defended the idea of total transparency that inspired them. If both complete secrecy and complete transparency are to be rejected, what ratio of secrecy and transparency in politics should we seek? Democratic theory leaves this question unanswered: no systematic assessment of the role of secrecy in a democracy is available. This project solves this problem. By employing the tools of analytic political philosophy, social choice and game theory, we develop a theory of democratic secrecy centred around three theses: 1. Secrecy in exercising executive and legislative power can be democratically authorized; 2. Secrecy protects the integrity of democratic decision-making processes; 3. Balancing secrecy and transparency is an exercise in balancing the values underlying democratic authority and democratic decision-making mechanisms. The results of this philosophical study set a new course in democratic theory by demonstrating that democratic governance requires less openness than traditionally assumed. To complement the theory, criteria for political accountability for wielding political secrets and criteria for assessing responsibility for their unauthorized disclosure are designed. Our results have practical relevance: understanding when and why secrecy is morally acceptable may change the policy approach to transparency provisions, and provide a better fit between the “public right to know” and the needs of governments. Scholars from Poland and the Netherlands assess the use of governmental secrecy in these two, respectively old and new, EU member states.

We are all Ayotzinapa: The role of Digital Media in the Shaping of Transnational Memories on Disappearance

The project seeks to study the role of digital media in the shaping of transnational memories on disappearance. It investigates a novel case that is in process of shaping: the disappearance of 43 students in Mexico in September 2014. The role of the new media in getting citizens’ attention and in marking a “turning point” was crucial to the upsurge of a counter-movement against the Mexican government and qualifies the event as significant for the transnational arena. The groundbreaking aspect of the project consists in proposing a double approach: a) a theoretical approach in which “disappearance” is considered as a particular crime that becomes a model for analyzing digital memory. Disappearance is a technology that produces a subject with a new ontological status: the disappeared are non-beings, because they are neither alive nor dead. This ontological status transgresses the clear boundaries separating life and death, past, present and future, materiality and immateriality, personal and collective spheres. “Digital memory”, i.e. a memory mediated by digital technology, is also determined by the transgression of the boundaries of given categories b) a multidisciplinary approach situating Mexico’s case in a long transnational history of disappearance in the Hispanic World, including Argentina and Spain. This longer history seeks to compare disappearance as a mnemonic object developed in the global sphere –in social network sites as blogs, Facebook, Twitter and YouTube– in Mexico and the social performances and artistic representations –literature, photo exhibitions, and films– developed in Spain and Argentina. The Mexican case represents a paradigm for the redefinition of the relationship between media and memory. The main output of the project will consist in constructing a theoretical model for analyzing digital mnemonic objects in the rise of networked social movements with a transnational scope.

How elephants grow old

The ageing population structure of most European countries has major health, economic and social consequences that lead to a need to better understand both the evolutionary limitations of deferring ageing, as well as the mechanisms involved in growing old. Ageing involves reduced fertility, mobility and ability to combat disease, but some individuals cope with growing old better than others. Improving the quality of life at old age and predicting future changes in longevity patterns of societies might depend on our ability to develop indicators of how old we really are and how many healthy years we have ahead, and how those indicators depend on our health history across several decades. Yet, most model species used in biology are short-lived and provide a poor comparison to long-lived mammals such as humans. Further, they do not often inform on the mechanisms of ageing alongside its fitness consequences in natural populations of long-lived mammals. This project integrates different ageing mechanisms with unique data on lifelong disease and reproductive history in the most long-lived non-human mammal studied so far, the Asian elephant. I will examine how different mechanisms of ageing (telomere dynamics, oxidative stress and telomerase activity) interact with lifelong disease and reproductive history, and current endocrinological measures of stress and reproductive status. This will help us to better understand both the mechanisms of ageing and their consequences on senescence rates. To do so, I will combine the most comprehensive demographic data (N~10.000) on Asian elephants in the world with bi-monthly health assessments and disease records across life (N~2500) and with longitudinal markers of ageing and hormonal correlates of stress and reproductive potential (N~240). Understanding changes in health across life and its links to ageing rates, stress levels and life-history in a species as long-lived as humans will be relevant to a large range of end-users.

Leveraging Binary Analysis to Secure the Internet of Things

We are in the midst of the shift towards the Internet of Things (IoT), where more and more (legacy) devices are connected to the Internet and communicate with each other. This paradigm shift brings new security challenges and unfortunately many current security solutions are not applicable anymore, e.g., because of a lack of clear network boundaries or resource-constrained devices. However, security plays a central role: In addition to its classical function in protecting against manipulation and fraud, it also enables novel applications and innovative business models. We propose a research program that leverages binary analysis techniques to improve the security within the IoT. We concentrate on the software level since this enables us to both analyze a given device for potential security vulnerabilities and add security features to harden the device against future attacks. More specifically, we concentrate on the firmware (i.e., the combination of persistent memory together with program code and data that powers such devices) and develop novel mechanism for binary analysis of such software. We design an intermediate language to abstract away from the concrete assembly level and this enables an analysis of many different platforms within a unified analysis framework. We transfer and extend program analysis techniques such as control-/data-flow analysis or symbolic execution and apply them to our IL. Given this novel toolset, we can analyze security properties of a given firmware image (e.g., uncovering undocumented functionality and detecting memory corruption or logical vulnerabilities). We also explore how to harden a firmware by retrofitting security mechanisms (e.g., adding control-flow integrity or automatically eliminating unnecessary functionality). This research will deepen our fundamental understanding of binary analysis methods and apply it to a novel area as it lays the foundations of performing this analysis on the level of intermediate languages.

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 and enterprise associate in the School of Psychology at the University of Kent, 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 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.

Andrew set up [Parker Derrington Ltd](#) in 2013. He now works as a consultant, writing research grant applications and providing strategic advice and training to individuals and organizations.

Testimonials

I had a fantastically useful time attending your recent workshop at Leicester University. Writing the 10 key sentences was a very useful exercise and I have, since, worked on them to discover they are a fab tool for any kind of writing really.

Dr Ranjana Das, University of Leicester

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