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Last updated Aug 2020

How to write a successful grant application

Content

- Plan, plan and plan (again) for all of the activities involved in developing a research grant application. This always takes much more time that you
- Read the research funder guidance. This may vary greatly from funder to funder and may also have been updated since any previous application.
- Get other trusted individuals with the appropriate expertise and experience to peer review your application prior to submission.
- If unsuccessful, review the feedback, share with the research team and trusted individuals, revise the application and look for opportunities to submit elsewhere.

Introduction

Securing funding for research is never easy and there are no guarantees of success. Even the most seasoned researchers and research teams will experience setbacks and have applications declined. The key is never to give up; all you can do is make your application as strong as possible within the time available and then it is up to the reviewers. If you are not successful, use the feedback, review your application and submit elsewhere. The following are tips to increase (but not guarantee!) your likelihood of success.

Top tips

Plan, plan, plan

- Writing a research application is a major undertaking. Make sure that you plan (and plan and plan again) for all of the activities involved.
- If you have allocated sections to be written by individuals within the research team then monitor their progress. You do not want to be left writing complete sections with very little time.
- Have your application reviewed by 'critical friends' that you trust. They need to have the expertise and experience to critique the application.
- Do not submit an application that you know is not fully developed and requires further work. This will be rejected and may have consequences for your (and the team) reputation and may affect further applications you submit.

Get to know the funder

• In writing a grant application, you are selling your idea (the research team)

- to the buyer (the funder). You need to understand the funder, their priorities (what is important to them), the types of research that they fund and don't fund etc.
- Spend time reading about the funder, using information on their website and from other sources.
- You may be able to discuss your ideas with the funder. Check this out as there is no point in wasting many (very many!) days in developing an application which does not fit the scope of the funder.
- Talk to others who have been successful when applying to that funder.

Read the guidelines

- Once you have identified the most appropriate funder, read the guidelines (and then read them again and again!).
- Submitting an application which does not adhere to the guidelines (e.g. number of words, font size etc.) may lead to very early rejection.
- Check the type of funding call. Some calls may be very specific to a targeted field of study or even a particular research aim. Others may be more general within a field of study. There may also be calls aimed at specific researchers such as 'early career researchers'.
- Pay particular attention to the deadlines and ensure that you leave sufficient time for all parts of the application – particularly those that are not fully within your control (e.g. gathering any required signatures/approvals).
 Funders generally will not review an application submitted beyond the deadline, no matter the reason.

What are the reviewers looking for?

- Your application will be sent to a number of reviewers who will judge your application on a number of criteria.
- Do not make assumptions about what the reviewers will or will not know so you will need to be detailed in what you are proposing.
- While the judging criteria may vary from funder to funder, the key considerations will be
- 1. Is there a clear statement of the research aim(s)/ research question(s)/ research objective(s)?
- 2. Is the method likely to yield valid, reliable, trustworthy data to answer these?
- 3. If 2='yes' then what difference could this make (e.g. to patient care, professional practice, society etc.)?
- 4. Is there sufficient confidence that the research team will deliver this study on time and on budget?
- 5. Does the study provide value for money?

The application form

- As stated earlier, it is very important to follow the guidelines when completing the application form, and the specific sections. These are likely to include:
- <u>Abstract</u> a short summary of the application. Often this is given little
 attention by the applicants but is extremely important. If reviewers have
 many applications to read, they may form a quick judgement when reading
 the abstract.
- <u>Lay summary</u> as above but written in layman's terms. Get someone from a non-scientific background to read and comment on this
- <u>Introduction</u> this must be clearly written and should develop the argument for the study. While the need for the study will be obvious to you, it may not

- be to the reviewer. The introduction should flow and highlight the relevant literature and policy statements which support your argument but at the same time must be balanced. It should focus on the need for the study at the local, national and international level. The introduction (and the other parts of the application) must be well-referenced.
- <u>Aim</u> a statement of the aim(s), research question(s), objective(s), hypotheses etc. (follow the guidance on how these should be expressed as some applications require questions while others objectives). This section is fundamental; if these are unclear or poorly written then the reviewers may stop and this point and reject the application. Do not attempt to make the aims etc. overly complex. Well written aims etc. should be simply stated (although that the methods may be more complex). Criteria such as PICO (population, intervention, comparison, outcomes), [1] and FINER (feasible, interesting, novel, ethical, relevant), [2] provide useful frameworks to help write aim(s), research question(s), objective(s) and hypotheses. Also take care with the distinction between aim(s), research question(s), objective(s) and hypotheses.
- Method/ plan this section must relate directly to the aim etc. You may consider structuring this section into specific activities or work packages according to the research questions/ objectives. This then makes it very clear to the reviewer how you are going to attempt to answer each of the questions/ objectives. While the content of this section will depend on the nature of the study, key parts are likely to be:
- Study design. State, justify and explain the study design and methodology.
- Setting. Where will the study be conducted? Can you explain and justify this? (you need to explain and justify throughout this section)
- Target population. Who are you going to study? What are the inclusion and exclusion criteria?
- Sampling, sample size. Do you need to sample for the study? If so what is they sampling approach? What is the likely sample size needed? While this is very important for quantitative studies, it is also important for qualitative studies.
- Recruitment. What is the approach to recruitment?
- Data collection. What is the plan for data collection (or generation if qualitative)? How are tools or approaches to be developed, tested and piloted?
- Outcome measures. What are you going to 'measure' (noting that the term 'measure' is different in qualitative studies)? The outcome measures should directly relate to the specific research questions/ objectives.
- Validity, reliability, trustworthiness. What steps are you planning to maximise data validity and reliability (and possibly responsiveness) for quantitative studies and trustworthiness for qualitative studies?
- Analysis. What are your plans for analysis? What assumptions are being made? Your analysis plan must directly relate to the research questions/ objectives.
- Monitoring. What are the milestones and key performance indicators for your study? Depending on the funding body and the nature of the study, you may need to establish a monitoring and oversight committee.
- Limitations, mitigation. What are the risks in your study? What could go wrong? This is an important part of the application as the reviewers are likely to be aware of the risks and so good for you to highlight these and plan mitigation.
- <u>Expertise</u> give details of who is included in your research team and their expertise. The team must have the appropriate levels of experience and

expertise from relevant disciplines to give the reviewers confidence that the study will be delivered as planned. This does not mean that all team members must be highly experienced as developing research capacity is also important. While there is no optimum team size, all team members should have defined roles. Depending on the funding body and the nature of the application, it may be very important to consider patient and public involvement in the study and the study team. This may even be a separate section of the application with funding bodies requiring applicants to demonstrate that patient and public involvement has been core to the application, including developing the research aim etc.[3]

- <u>Funding required</u> give details of the funding required to conduct and report
 the study. The funder will have guidance on what they will fund and not
 fund. You will need to cost the time of those involved, any equipment,
 consumables, travel, payment for participants, dissemination costs etc. The
 funders will be looking for value for money and not necessarily a cheap
 study. Make sure that your total is within the funding allocated.
- <u>Timelines and deliverables</u> give a breakdown of the key work packages and component tasks to be completed, as well as an indication of how long you anticipate they will take. Include a Gantt chart if possible. This will help to show the reviewers that you have really thought through all aspects of the proposal.
- Research impact this is defined as, 'the demonstrable contribution that excellent research makes to society and the economy through fostering global economic performance, increasing effectiveness of public services and policy and enhancing quality of life, health and creative output'.[4] The reviewers will pay particular attention to the difference that this study can make hence is very important to the decision whether or not to support the application. Be realistic and balanced about the impact statement that you are making and do not be tempted to overstate the potential impact. Consider the impact in terms of who will be impacted, when and how. You may be asked to supply a pathway (plan and timescale) to realise the impact when the study is completed. There are some really useful diagrams which summarise the different levels of impact from organisations such as the Research Councils UK.[5]
- References your application should be well-referenced. The reference list must be written according to the style stated in the application guidance.

Further reading

Research funding. Vitae, realising the potential of researchers. Available at https://www.vitae.ac.uk/researcher-careers/pursuing-an-academic-career/research-funding [accessed July 2020].

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