Anatomy of a Successful Grant Proposal

37

Rosemarie Fernandez, Shawna J. Perry,
and Mary D. Patterson

Overview

The mechanics of writing a research proposal are addressed elsewhere in this text (see Chap. 33). In this chapter we will address the factors that are relevant to the successful funding of a grant proposal. The scientific basis of a research proposal is paramount, but other factors, often termed 'grantsmanship', influence reviewers' perceptions and evaluations of a research proposal. This chapter uses the example of a United States based federal grant application, but this information is applicable to a variety of funding mechanisms.

The authors of this chapter have been successfully funded and served as grant reviewers for governmental agencies, private foundations and international agencies. The information presented here will assist the applicant in understanding the mechanics of grant review from the reviewer's perspective as well as methods to create enthusiasm for the application in the reviewers.

Practice Points

- No amount of grantsmanship can overcome a weak or poorly designed research plan.
- The person who reviews an application is not necessarily an expert in the field.
- The successful application will be clear and understandable even by someone without expertise in the domain.
- The applicant should make it easy for the reviewer to perform the review.
- The Specific Aims page is the most important section of an application.
- The reviewer wants to advocate for your proposal. It is your job to give them the necessary information to do so.
- It is always a good idea to have individuals that are not intimately familiar with the proposed work, review the application before submission.

Introduction

The ability to advocate for a research proposal is heavily influenced by the clarity of writing and ease of sensemaking for the reviewers. Despite this, the role and perspective of grant reviewers is often not a primary consideration during the writing process. Reviewers are seeking logical, concise, easily understood arguments and plans for meeting the specific aims proposed by the research team. The audience you are writing for are individuals of varying backgrounds and expertise who are anonymous to you. This chapter will offer some insights on the characteristics of competitive proposals from the viewpoint of the reviewer. It will highlight aspects of research proposals that support the reviewers' ability to evaluate, score and advocate on its behalf.

One widely held misconception is that every member of a grant review panel will be *the* world-renowned leading expert in *your* specific research area of interest, and as such, they will be exceedingly well versed in the subject your team wishes to study. This is very seldom the case. Review panels are composed of a number of highly

R. Fernandez
Department of Emergency Medicine and Center for Experiential Learning and Simulation, College of Medicine, University of Florida, Gainesville, FL, USA
e-mail: fernandez.r@ufl.edu

S. J. Perry
Department of Emergency Medicine, University of Florida College of Medicine – Jacksonville, Jacksonville, FL, USA

M. D. Patterson (✉)
Department of Emergency Medicine and Center for Experiential Learning and Simulation, College of Medicine, University of Florida, Gainesville, FL, USA
e-mail: m.patterson@ufl.edu

D. Nestel et al. (eds.), *Healthcare Simulation Research*, https://doi.org/10.1007/978-3-030-26837-4_37

educated individuals from a variety of domains. Reviewers are assigned proposals to critique and present to the larger group; however, reviewers are often assigned proposals that are outside of their primary area of expertise. Three reviewers are usually assigned to each application. For example, a proposal related to computer simulation of patient scheduling in a primary care clinic may be reviewed by an expert in computer simulation, another who is an expert in quality assurance in health care and a third who is a primary care clinician with expertise in public policy and access to care. Bearing this mind, the content and format of the grant should be written to persuade any reviewer to become an enthusiastic advocate of the project, thus allowing them to present it with ease to the larger review panel for discussion and scoring.

Timeline for Writing a Grant Proposal

Typically, the writing of a grant proposal should begin 4–6 months prior to the sponsor's deadline. While that may seem to be a long interval, there are myriad details that must be addressed during this time. If the applicant is associated with an academic organization, the required certifications and registrations with the sponsor are likely already in place. This may require more time in a healthcare organization that does not frequently submit proposals for funding. Most organizations also require some sort of additional internal review prior to submission to the funding organization and that must be accounted for. Not infrequently, funding organizations release requests for proposals (RFP) that have short submission deadlines, e.g., 6 weeks. Many successful applicants keep several partially written applications on hand that can be rapidly polished and submitted when a promising RFP is released.

The Research Question: Framing Your Research and Making an Argument for Reviewers

A successful research proposal should convince the reviewer that your work is (1) important, (2) feasible, and (3) aligned with the mission of the funding organization. The reviewer is likely to form an opinion on how well you've accomplished these goals within the first few pages of the proposal. Different funding sources may require different proposal layouts and formats. In general, the first few pages will provide you the opportunity to describe your overall research question and approach (Specific Aims), describe the current state of the science and explain the importance of your study (Significance and Rationale), and highlight why your study will advance the field (Innovation/Importance). We discuss each of these sections with a focus on how they are seen through a reviewer's lens.

Specific Aims

The Specific Aims section of your grant is the most important page you will write. In most federal grant review processes, it is the only page most of the study section members will have time to read due to the large number of grants being considered at each review session. This means that this section needs to communicate the knowledge gap you are trying to fill, the overall objective of the proposed work, your research questions and associated hypotheses, and the relevance of your outcomes to the funding institution or mechanism. Because the Specific Aims section must convey a great deal of information, the writing must be extremely focused and concise. Reviewers are not looking for in-depth details about your preliminary work, approach, or research team. If your team is extremely strong and uniquely positioned to do the proposed work, then a single sentence stating this might be warranted. However, details about the strengths of each investigator will take up valuable space and leave your reviewers wondering why you chose to discuss your team rather than provide clear information about what you are going to do, how you will do it, and what you hope to discover.

Recommendations

- Reviewers are looking to make sure your specific aims are independent. If the success of one aim depends on the success of another, reviewers will see this as a major threat to the feasibility of your proposal.
- Reviewers want to see that your aims clearly address hypotheses and have well-defined outcomes. Reviewers want to understand what you want to do, how you want to do it, and how it will be measured.
- Reviewers want to know exactly what your primary outcome(s) is.
- Reviewers want to see exactly how your proposal addresses the priority of the funding agency. If you are responding to a specific call for proposals, clearly state how your proposal is applicable.
- Reviewers are often not experts in your area and have not read your entire proposal. Limit the use of jargon to avoid unnecessary confusion.
- Reviewers want to be able to sell your proposal and be able to say how it will advance clinical, education, simulation, or safety science. In the last few sentences, be sure to state clearly to the reviewer how the successful completion of your study advances the field.

Significance/Background/Rationale

Different funding agencies will have different requirements, but ultimately they all want some background information that explains why your project is significant. The Background and Rationale section helps reviewers answer the question "So what?" In other words, why should we care about your research question? Is it because five million people are impacted by the disease every year? Is it because you are addressing a knowledge gap that prevents implementation of evidence-based medicine? It is important to remember that at least one or more of your reviewers will not be familiar with the clinical or educational question you seek to address. It is your job to orient and convince them that the problem or knowledge gap you are trying to address has significant impact and is important. By the end of your Background section, the reviewer should be able to clearly articulate the critical importance or your research problem or knowledge gap.

Some funding agencies also ask that you address the rationale for your approach as a separate section. A reviewer wants to understand why the investigator is choosing to answer this question with the techniques / research approach proposed. For instance, if you are proposing to use virtual reality-based training to develop lay-person CPR skills in high schools, a reviewer wants to know why virtual reality? Why CPR skills? Why this population of learners? How is this approach better than what is already done?

Recommendations

- Reviewers want to understand what knowledge gap you wish to address, why it is important, and why your approach makes sense. Your reviewer needs to be able to answer the "So what?" question. If your project is successful, so what?
- It is important to demonstrate that you have a thorough understanding of the existing science. Make sure the material you reference is up to date. If there is some disagreement in the literature around your topic, acknowledge it and provide a rational argument for your study.
- It is critical that this section clearly conveys understanding of the domain within which you will be doing research. Technical, jargon-filled language does not help your cause. If you use specialized terms, define them and be consistent with their use throughout. Define all abbreviations and ask yourself if it is really important that a term is abbreviated. You don't want to lose the reviewer's attention because s/he can't keep track of your abbreviations!

Innovation

This can be one of the toughest areas for new investigators to understand. There is a natural tendency to see an overlap between the Innovation section and the Significance section. These are, however, two very different content areas for reviewers. When reviewers look at your Significance section, they want to understand the importance of the problem you are addressing and why it deserves attention. In contrast, the Innovations section is expected to discuss why your approach and solutions to the problem are novel and advance the field. Not all grant applications require that you include this section. However, if your approach is novel, you want to emphasize why your project is innovative, especially if you are using a new method, technique, tool, perspective or technology in your Approach.

Recommendations

- Reviewers want to clearly understand what is innovative about your proposed work. You may be implementing your work in a novel population, or using a novel technique, or adapting a conceptual framework previously applied in a non-medical field. Whatever it is that makes your work innovative, make it clear for the reviewer.
- Avoid rehashing the content of your Background or Significance section with regard to innovation. This section is often short (less than one page), very direct, and to the point.
- Sometimes a proposal addresses a very important knowledge gap but does not necessarily meet the definition of "innovative". Reviewers understand this. If this is the case, you should use this as an opportunity to address how the overall project, with its proposed methodology, will result in a major leap forward for your field.

The Research Team: What Are Reviewers Looking For?

The composition of your research team is a critical component of your proposal. Reviewers will be specifically looking for information that demonstrates the team has the requisite expertise to execute the proposed work. This may sound simple, but the team composition is often an area that is heavily critiqued by reviewers. Successful proposals clearly identify the role and responsibility of each investigator, leaving no uncertainty about each individual's contribution to the project. This will begin with reviewers assessing the type of scientific expertise included on the research team. A study of informal clinical communication using smart phones

between nurses and physicians in ICUs would be expected to include not only professionals from each discipline, but individuals with expertise in communication and perhaps sociology or human factors engineering. To this end, is also important that each team member's biosketch clearly demonstrate domain expertise that supports the work of the proposal and the budget justification delineates succinctly how that expertise will be expected to contribute and what will be the responsibilities of each team member.

Reviewers will also seek evidence that the level of research experience of the PI and team members is commensurate to the level of funding being requested. Specifically, does the team have experience in grants management necessary to execute the proposed project? For instance a team composed exclusively of junior investigators seeking several million dollars of funding would raise concern about the feasibility of completion of the project. This can be mitigated by including a more senior and seasoned investigator to the team, and clearly stating in the proposal and in his/her biosketch that grant management is one of their roles on the project.

Reviewers also want to see that each person on your team has enough financial support within the grant to "buy time" from their primary employer in order to execute the responsibilities to your project. This means that the amount of grant money allocated as salary support for each team member should accurately reflect his/her responsibilities and commitment to the project. Reviewers will be concerned if key personnel performing a number of critical roles within a 4-year project are only supported for a small percentage of their effort each year. This is particularly concerning if your team members are also involved in a number of other research projects. The question reviewers will be considering is whether or not each team member will have enough time to substantially contribute to the work of your proposal.

Your proposal must also show that the team can feasibly gather the data it seeks, i.e., recruit subjects and/or access databases. Reviewers are looking for evidence that you have not only local support, but support at all the sites where the project is being conducted. This frequently takes the form of letters of support from all entities participating in the project. The inclusion of co-investigators or consultants at each research site and descriptions of how the proposal will be supported, e.g., statements such as "the medical director for the clinic will assist with identifying potential subjects to include in the study", provide reassurance that the proposal has a good chance of being successful.

Finally, reviewers are also looking to understand how your collaborators are going to work together. It is common for investigators on a grant to come from multiple institutions, even if data are only collected at one site. This is somewhat expected, but does present challenges during the collaborative process. Reviewers want to know that you've considered this and have a plan to manage your distributed team. This may include virtual meeting software, budgeting for in-person meetings, or a successful track record of long distance collaboration.

Recommendations

- Reviewers want to see that your team has the expertise to complete the project.
- The involvement of professionals from domains outside healthcare is considered a significant positive. Depending upon the nature and focus of your project, including investigators from the social sciences, engineering, or humanities suggests to reviewers that your project is innovative and will make more than an incremental advance in the field.
- Reviewers like to see that investigators have a history of successful collaboration. While this is not always the case, be sure to highlight any shared projects you have with other investigators on your grant.
- All investigators are not seasoned scientists. Consider obtaining a letter of support for junior investigators from their mentors or direct supervisors that will ensure they have the support needed to fulfill their role.
- Reviewers know how difficult it can be to recruit and collect data at remote sites. Demonstrate you have the necessary support at each site.
- Inconsistencies within a proposal are very distracting and viewed negatively by reviewers. For instance, be sure personal statements of biosketches match role descriptions within the research proposal, budget justification, and letters of support. Reviewers notice when a biosketch reflects a previous project rather than the current proposal.
- Letters of support should not be identical; each letter of support should reflect the specific resources, responsibilities, and commitment of the individual or entity authoring the letter.

The Environment: Are You Set Up for Success?

Reviewers need to know that your institution and your study sites can support your work. For simulation, this may mean that you have the requisite simulation equipment as well as recording capability and video processing. If the simulation work to be done is significant, reviewers will want to see that you've budgeted for simulation faculty and staff time. If the institution is providing this as an "in-kind" contribution to the project, reviewers will be looking for a letter of support from the institution that clearly states what the level of support is.

While you may be submitting a proposal that centers on simulation, don't forget to describe other relevant components of the research environment. If you are recruiting nurses, the reviewers want to know that the clinical environment can support your recruitment plan and would like to see a letter of support from the nursing leadership ensuring that they will help you achieve the recruitment goals. You may also want to mention research infrastructure present at your institution, especially if these resources will be used in your project.

Recommendations

- Reviewers want to know that the study institution(s) has the resources needed for you to get your work done.
- It is important for reviewers to see evidence that your environment can support the recruitment plan you've outlined.
- Letters of support should clearly state how and what resources will be provided.

Methods/Approach

It could be argued that, in addition to the Specific Aims of an application, the Approach, or Methods, is the second most important section. Reviewers (including those not assigned to the application) will read the Approach after reading the Specific Aims. Chapter 33 provides detailed instructions on writing a research proposal; the focus here is on the preferred presentation and pitfalls to avoid.

The Approach should include enough background to enable the reviewer to grasp what is known and where the gaps in knowledge are. Previous work, especially by the applicants, may be included in the background or as part of the introduction to each proposed intervention. A description of related preliminary work performed by the team or team members engenders confidence in the reviewers.

Each experiment or intervention should be explicitly linked to a specific aim. The work should be feasible, and each intervention should be independent of other interventions, ie; each proposed intervention should not be dependent on the success of an earlier activity in the application. There are exceptions to this, but especially when a specific aim appears risky or less likely to be successful, the remaining specific aims should not rely on the successful completion of an aim that seems chancy. The work described should be feasible given the proposed effort, timeframe, and available resources. Reviewers are often skeptical of what they perceive to be overambitious projects. Members of the research team should have the skills to carry out all the proposed activities. Proposed methods that are not yet developed may hinder enthusiasm for the application.

The conceptual framework is a crucial aspect of the application; it is the foundation that enables reviewers to understand the theoretical construct supporting the proposed project. Paradoxically, it is often omitted, and this omission is often viewed as a fatal flaw by reviewers. Providing a well-referenced conceptual framework around which the study components (measures, outcomes, and analyses) are organized will help reviewers understand your work and believe that your work is well-grounded. The inclusion of a visual representation or diagram illustrating the key components of the conceptual framework is also helps with sensemaking by the reviewer of your proposal.

The study design is also critical. In general, the strongest design that can practically be carried out is desirable. A randomized controlled trial is not common in simulation research, but a stepped wedge design is a variation that is a considerably stronger design than a simple pre-and post study. Again, remember that not all reviewers are familiar with simulation or medical education research. Your work must be rigorous by standards of medical research overall. Careful understanding of the limitations and biases inherent in your work are a must and their inclusion benefits the reviewers understanding and ultimately advocacy for the proposal. Any step where you had to scale back for practical reasons should be acknowledged. Reviewers understand that study design is a careful balance of practicality and a desire for scientific rigor.

The choice of appropriate outcomes is key to a successful grant application. In simulation, there has been a tendency in the past to select weak outcomes that measure learner reactions to the simulation experience or the immediate change in knowledge or skill. Current successful grant applications are more likely linked to behavior change, clinical outcomes or a system/process measure. This does not mean that multilevel outcomes are not important, but rather outcomes should be supported by the conceptual model and match the rigor and funding level of the grant to which you are applying.

Finally, a Gantt chart or other type of timeline should be included to demonstrate the proposed interval for each grant activity. This should be followed by a section describing the limitations of the study. A paragraph or two on the limitation or alternative methods is often missing from grant applications, and reviewers are typically sensitive to this omission. They understand that all grants have limitations. However, the funding organization wants to know that the applicant has thought through the research process and has identified alternative methods that will result in meaningful contributions even if the primary intervention is not successful.

Recommendations

- Use clear, understandable language and avoid technical jargon.
- Make clear how the preliminary work supports the proposal.

- A well-organized figure that outlines each step in your study goes a long way to help with clarity!
- Be clear what your primary, secondary outcomes are. Be sure you state which outcome you are using for your sample size calculation.
- Have clear sections within the Approach that mimic a clinical manuscript: setting, subjects, intervention(s), outcomes, data collection, analyses, etc.
- Align the specific aims with each intervention.
- Use the strongest design and outcomes that can feasibly be accomplished.

Budget

The budget requirements are dictated by the funding organization and the resources that are required to complete the work. Reviewers want to ensure that proposed budget is sufficient to accomplish the work proposed, but they are also skeptical of anything that appears to be lavish or excessive. Budget instructions are typically quite detailed and should be followed without deviation. In the case of any ambiguity, the applicant should consult with the funding organization or agency on what is permissible. A business manager or someone associated with an organization's grants and development office is helpful in developing the grant budget. For most research grants, simulation equipment (simulators) is seen as an inappropriate expense, while simulation supplies would be expected expenditures. Be sure to include in the budget the cost of methods and tools necessary for collaboration across your team, e.g., travel for team meetings for data analysis at key intervals, teleconferencing, etc.

Key budget considerations in any grant proposal include:

- Total allowable budget over what time interval
- Including or excluding indirect costs
  - Many private foundations do not allow for indirect costs
- Modular budget or not (NIH uses modular budgets; many other organizations/agencies do not)
- Budget use for capital expenses (expensive equipment expected to last for several years, i.e., simulators.)
  - Many funding organizations limit capital expenses to a small percentage of the overall budget or don't allow for any capital expenses.
- Many funding organizations adopt the US federal government federal agency salary cap. All reimbursement for salaries is limited by the salary cap.
- Many foundations require some proportion of in-kind contribution from the applicant's organization. If included in the proposal, in-kind funds and resources should be outlined in a Letter of Support.

Human Subjects

See Also Chap. 34: Writing an Ethics Application

The protection of human subjects is mandated by funding organizations and agencies and is a required element of all grant applications. Often this aspect of the application is given short shrift by the applicant, typically being located at the end of the application. While a well done human subjects section will not necessarily gain any points with a reviewer, a sloppy or missing human subjects section may sink the grant application. Students, trainees, and healthcare professionals frequently serve as subjects in simulation research. These subjects are viewed as vulnerable research populations in light of their positions as students and/or employees of the healthcare institution. As such, they are entitled to additional protections and care needs to be exercised in terms of recruitment and de-identification of data. Any hint of coercion must be avoided. While the applicant may make the case that the proposed project is exempt from regulation as human subjects research, only an ethics board or Institutional Review Board (IRB) can make that determination. Ethics (or IRB) review is required in addition to the grant application. The ethics review is not necessarily completed by the time of the grant submission. However, timing of the ethics review should take into account the expected funding date, the interval required for ethics review in a particular institution and possibly the need for multiple organizations to perform an ethics review if multiple sites are participating.

Grantsmanship and Other Miscellaneous Points

Grantmanship is defined as "the art of obtaining grant funding" [1] and this section will focus on "the art". Being attentive to fine details, such as how the proposal 'looks' to the reviewer is important, not to mention spelling errors, grammar etc. More than last minute attention should be given to the page layout of the document, margins, line spacing, font size and figures or images as they affect the conveyance of ideas and comprehension for the reviewer. A proposal of 15 or more pages with narrow margins, single spaced with size 9 font can be off putting at first glance as it connotes a dense proposal that is full of information that will likely be difficult to follow or reference. This can also signal a proposal that has not been well thought out. Be sure to check with the grantor for submission specifications as some grantors will not accept proposals that do not meet their format and layout criteria. In the event there is a lack of specifications, a good rule of thumb is to not submit any proposal that you, a colleague, or family member would not want to read and evaluate.

Recommendations

- Be sure you read the call for proposals carefully (at least twice), making note of any and all requirements. These include:
- Formatting (font, spacing, margins, page limits)
- Required sections
- Key material that must be covered (consider bolding such information in your proposal to ensure it is not missed)
- Budget requirements or salary and effort requirements
- Project length
- Funding agency priorities
- The appropriate inclusion of flow diagrams or models to demonstrate important features of the proposal (e.g., relationship of specific aims to the research methodology, process of data collection, analysis, etc.) can often be helpful to the reviewer, especially if the project has more than one intervention arm or is complex.
  - Make figures readable and ensure they are necessary for the reviewer to understand your proposal
- Each funding entity will have specific minimum criteria it expects its reviewers to use for evaluation (e.g., responsiveness to request for applications, significance, methodology, inclusion of a specific population for study, etc.) These can often be found in the call for applications or on the grantor's website. As discussed earlier, the art of grantsmanship includes making the proposal understandable and easy to navigate. Specific criteria should be readily identified, as they can be easily overlooked in a poorly presented proposal, resulting in a non-competitive score.
- Make sure references are correct, current, and relevant to the subject matter. Reviewers do periodically check them to clarify their understanding of the proposal and overall validity
  - In citing references in the body of the application, use the author(s) and year in parentheses rather than a superscript. This uses slightly more space, but is very helpful to the reviewer.
  - Be certain to include classic or seminal references – if they are not cited, a reviewer will make note of it. One of those overlooked authors may also be a reviewer!
- Limit use of appendices to items that are *crucial* for making your case. An overabundance of appendices can be time consuming to review and often add little to the reviewers overall understanding of the proposed project. US federal granting agencies currently restrict the type of materials that can be placed in Appendices.
- The importance of the 'understandability factor' to reviewers cannot be emphasized enough. On occasion, proposals are not scored favorably despite being an innovative, potentially impactful project simply because it was difficult to understand (e.g., numerous complex equations with limited explanation of their relevance, run on sentences that contain too many ideas, etc.) Having the draft proposal read by several people (some of whom are not familiar with the subject matter) for clarity and comprehension can be an effective litmus test for understandability.
  - Avoid jargon
  - Use abbreviations sparingly and define them early. Avoid abbreviations in the Abstract or Specific Aims sections
  - Use the same term for the same concept throughout the proposal

When You Aren't Funded the First Time

After passing though Kubler-Ross's stages of grief [2] when your proposal receives a score that will not result in funding, it is important to critically analyze the proposal, the submission, and most importantly, the reviews. This would initially include deciphering the scoring system used by the grantor to determine how far your proposal is from a fundable score. This, along with a thorough vetting of the reviewers' comments, will assist in determining how much revision will be needed for a successful resubmission. The reviewers' comments will be provided in writing and will discuss strengths and weaknesses of the proposal. They will often include suggestions for refining and improving the proposal and project overall. These are offered as constructive criticism and are based on the reviewers' desire to advance scientific exploration. They are not personal in nature, although they may initially feel that way. Think of these comments as a roadmap to success when the proposal is resubmitted. If the application was triaged, meaning the preliminary reviewer scores were not high enough to require discussion by the entire review panel, the applicant will only receive the reviewers' written comments. If the application was discussed, the applicant will receive a summary of the discussion as well. In those cases, it is sometimes helpful to arrange a phone conversation with the science officer of the funding organization. The science officer may be able to provide more nuanced feedback concerning the reviewers' discussion.

If resubmitting to the same grantor, it is expected that there will be a cover letter that begins by thanking the reviewers for their review and explaining how the previous reviewers' comments were addressed in the new version of the proposal (or not addressed with an explanation). It can also be helpful and it is often required to highlight specific revisions made within the resubmitted proposal. This may be a point-by-point overview of the revisions made, as well as noting how the changes in the text can be identified (e.g., italics, highlighting, etc.) This can be helpful to the second review process, as on occasion, the same reviewers may be assigned to evaluate the re-submission. It is therefore very important to respond to each and every recommendation in your cover letter that you received from the first submission.

Closing

In general grant reviewers spend hours reviewing applications before the grant review meeting. Then they spend 2–3 days in windowless conference rooms discussing large numbers of grant applications. Each grant application is only discussed for 15–20 minutes. To top it off, all the reviewers assigned to your application may not be experts in your field. BUT, there is hope--Your best chance for success is to ensure that the reviewers assigned to your application are enthusiastic about and will strongly advocate for your grant application. It is our hope that this chapter will support you to that end.

Recommendations to Increase Your Chances of Success

- Tell a compelling, rational, exciting story in plain language.
- Ask several colleagues unfamiliar with your work to review application before submission to ensure it is easily understood by non-experts.
- Make it easy for reviewers to like your application and advocate for you.
- Use headings that match the review criteria- don't make reviewers search for it.
- Explicitly state how the application is responsive to the Request for Proposals.
- Use white space, figures, and diagrams to break up pages of print.
- Adhere to requirements for formatting, margins, and font.
- Identify strong and meaningful outcomes.

FAQS

What are the most common mistakes that reviewers see in Grant Applications?

- Not aligning the work with the funding organization's/ RFP's stated priorities
- Research question or hypothesis that is not exciting/ meaningful
- Too many specific aims for the timeframe of the grant
- Highly technical and incomprehensible language
- Specific aims that are interdependent
- Absence of a conceptual framework
- Absence of Limitations/Alternative Methods sections
- Not including specific expertise for the work proposed, especially for statistical analysis
- Promising too much for the time and effort allocated
- Weak outcomes
- Non-compliance with budget requirements
- Absent or inadequate human subjects section

References

1. Merriam Webster Online Dictonary. Available from: https://www.merriam-webster.com/dictionary/grantsmanship. Accessed 22 Jan 2018.
2. On Death and Dying: Elizabeth Kubler-Ross Foundation. Available from: http://www.ekrfoundation.org/five-stages-of-grief/. Accessed 22 Jan 2018.

Additional Resources

National Institute of Nursing Research. Writing a Successful Grant Application. Tully L. Available from: https://www.ninr.nih.gov/sites/www.ninr.nih.gov/files/Module3WritingaSuccessfulGrantApplication.pdf.Accessed 22 Jan 2018.

New Set of R01 Sample Applications: National Institute of Allergy and Infectious Disease. Updated January 11, 2017 New: https://www.niaid.nih.gov/grants-contracts/new-r01-sample-applications. Accessed 22 Jan 2018.

Write Your Application: NIH updated Jan 28, 2016. Available from: https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/write-your-application.htm. Accessed 22 Jan 2018.