The Grant-Writers' ToolKit

Andrew Derrington

- Why do funding bodies give Research Grants?
  - PRIMARY REASON
    - It gives a realistic promise of an answer to an important question.
      - What makes a question important?
        - Promise of a breakthrough
        - Solve an important problem
      - Who decides which questions are important?
        - Responsive mode
          - A 'responsive mode' application has to convince the reader that the question it seeks to answer is important TO THE FUNDING BODY
        - Directed mode
          - The importance of the question is established by the funding call (common for EU proposals). The application has to convince the reader that the research really does address one of the questions in the funding call.
          - It is the job 'background' section of the proposal to convince the reader that the proposed research deals with an important question, however importance may be defined.
      - What are the criteria for assessing whether the prospect of an answer is realistic?
        - Does the application describe a well-designed programme of research
        - Does the application convince the reader that the investigator is capable?
        - Does the application convince the reader that the PI has a supportive environment?
        - Are the resources requested both sufficient and necessary?
  - SECONDARY REASONS
    - Building up the research base
      - Favouring applications from first-time or early career applicants
      - Special equipment grants.
      - Favouring applications that promise that research students or staff will be trained in the project
      - Favouring applications that include a commitment from the institution or co-funding from other sources.
    - Protecting the research base
      - Favouring applications from established labs
      - Favouring applications that support existing facilities
      - Favouring applications from known superstars
- Who makes the funding decision and how?
  - The committee makes the crucial part of the decision by deciding which grants are fundable and ranking them.
    - The committee discusses each grant and assigns it a score. Grants are then ranked by score and the highest ranked grants get funded.
    - It is extremely rare for more than one member of the committee to be expert in your area. It is commonner for there to be no expertise in the area of a grant. They will not want to fund research that claims to be important but is not presented in such a way that they feel that they understand it.
  - Fundable grants are funded in priority order until the money available has all been allocated.
    - Usually two members of the committee are designated to read a grant and present it to the committee. Often, neither of them knows anything about the general area, let alone the precise topic. The Designated Members (DMs) present the grant by giving a Synopsis of the proposed research and its background, an Evaluation of its quality and relevance and a Recommendation for the score.
    - The role of the DM is not easy. It is fairly common for a DM to have as many as five or ten grants to present in a single 2-day committee meeting. A DM feels very good if they get a grant to present that is very easy to understand, especially if it is in an area that they know well. They will want to fund it because they can write a clear, convincing synopsis and easy to assess its importance, that gives it the best possible chance of getting a high recommendation. The whole panel feels good when they hear a very clear presentation of an exciting piece of research. They will want to fund research like that.
    - The panel as a whole will discuss the grant before scoring it. Sometimes this done by secret electronic voting, sometimes it is done by open consensus. In practice, the result is not very different because a single panel member cannot influence the score very much by voting differently from the rest--typically they use the median score to rank. If a panel member wants to have a big effect on the score of a grant it can only be done by persuading the other panel members to score higher or lower.
    - The case for support should make it easy for the DM to give a clear, convincing presentation.
  - The committee must
    - Understand the logical structure of the project
      - What is the question?
      - Why is it important?
      - How will it be answered?
      - How will the answer be disseminated?
    - Believe in your project
      - (a) that the applicant is capable of carrying out the pro ject,
      - (b) that the applicant's environment is suitable for the research,
      - (c) that the resources requested by the applicant are necessary to allow the pro ject to be completed successfully,
      - (d) that the resources requested by the applicant are sufficient to allow the pro ject to be completed successfully,
      - (e) that the pro ject represents good value for money.
- The Toolkit
  - Working Memory and the Four Item limit
  - Chunking
  - Schema
    - Mental representation of the logical structure of the project
      - 1) What is the question?
      - 2) Why is it important?
      - 3) How will it be answered?
        - 4) SubQuestion1
        - 5) SubQuestion2
        - 6) SubQuestion3
        - 7) SubQuestion4
      - 8) How will the answer be disseminated?
  - Themes
    - 1. Main research question
      - 1.1 Brief statement of main research question
      - 1.2 Development of the main research question
      - 1.3 Brief restatement of the main research question
    - 2. Reason the question is important
      - 2.1 Brief statement of the reason the main research question is important
      - 2.2 Development of the reason the main research question is important
      - 2.3 Brief restatement of the reason the main research question is important
    - 3. Research Approach
      - 3.1 Brief statement of the general research approach
      - 3.2 Development of the general research approach
      - 3.3 Full development of the general research approach
    - 4. First Research Sub-question
      - 4.1 Brief statement of the first research sub-question
      - 4.2 Derivation of the first research sub-question and WNTK
      - 4.3 First part of the research programme, TWTU and resources.
    - 5. Second sub-question
      - 5.1 Brief statement of the second research sub-question
      - 5.2 Derivation of the second research sub-question and WNTK
      - 5.3 Second part of the research programme, TWTU and resources
    - 6. Third sub-question
      - 6.1 Brief statement of the third research sub-question
      - 6.2 Derivation of the third research sub-question and WNTK
      - 6.3 Third part of the research programme, TWTU and resources
    - 7. Fourth sub-question
      - 7.1 Brief statement of the fourth research sub-question
      - 7.2 Derivation of the fourth research sub-question and WNTK
      - 7.3 Fourth part of the research programme, TWTU and resources.
    - 8. Dissemination
      - 8.1 Brief statement of the dissemination approach
      - 8.2 Brief statement of the dissemination approach.
      - 8.3 Statement of the dissemination approach.
  - Tag Phrases
    - Label the theme
    - Teach the technical language
  - Repetition
    - Memory
    - Familiarity
  - Signposting
  - Priming
  - We need to know (WNTK)
  - This will tell us (TWTU)
- The Raw Material
  - Writing Style
    - Punch beats precision
      - Newspaper Style Guides
    - Short Words
      - 7 chars or fewer.
    - Short Sentences
      - fewer than 10 words.
    - No adverbs
      - "The adverb is a bastard for the benefit of those who cannot reach the right verb"
        - Slatey 1996
    - No Adjectives
    - No sub-clauses
    - No 'elegant variation'
      - If you refer to the same thing more than once use exactly the same word or phrase.
    - No coining of acronyms
      - Use repetition of key phrases in order to teach the reader the phrase.
- The Job
  - Build the Schema in the Committee members' Heads
  - Make them believe in it.
    - (a) that the applicant is capable of carrying out the pro ject,
    - (b) that the applicant's environment is suitable for the research,
    - (c) that the resources requested by the applicant are necessary to allow the pro ject to be completed successfully,
    - (d) that the resources requested by the applicant are sufficient to allow the pro ject to be completed successfully,
    - (e) that the pro ject represents good value for money.
- The Ideal Case for Support
  - Sections
    - Summary
      - Function
        - It is the sales'pitch' for your project.
        - It must make the reader invite you in.
        - Must be easy to read
        - Must be interesting
        - Must be unbelievable.
        - Must be easy to remember.
        - Must build the 'schema'
      - Content
        - 1.1 Brief statement of main research question
        - 1.2 Brief statement of the reason the main research question is important
        - 1.3 Brief statement of the general research approach
        - 1.4 Brief statement of the first research sub-question
        - 1.5 Brief statement of the second research sub-question
        - 1.6 Brief statement of the third research sub-question
        - 1.7 Brief statement of the fourth research sub-question
        - 1.8 Brief statement of the dissemination approach
        - Use tag phrases to label the themes.
    - Objectives
      - Our overall aim is to answer main research question
      - Our first objective is to answer the first research sub-question
      - Our next objective is to answer the second research sub-question
      - Our next objective is to answer the third research sub-question
      - Our next objective is to answer the fourth research sub-question
      - Finally we shall and discuss the dissemination approach
    - Background
      - Function
        - This is the start of the full sales pitch
        - Convince the reader that the problem to be solved or the opportunity to be taken is massive and imminent
        - Convince the reader that this clearly within the set of topics identified by the funding call (directed mode).
        - Prepare the reader to accept that
          - the proposed research project
          - solves the problem
          - or
          - seizes the opportunity.
        - Reinforce the Schema
      - Content
        - 2.1 Development of the main research question
        - 2.2 Development of the reason the main research question is important
        - 2.3 Development of the general research approach
        - 2.4 Derivation of the first research sub-question and WNTK
        - 2.5 Derivation of the second research sub-question and WNTK
        - 2.6 Derivation of the third research sub-question and WNTK
        - 2.7 Derivation of the fourth research sub-question and WNTK
        - 2.8 Brief statement of the dissemination approach.
        - Use tag phrases to label the themes.
    - Plan of Investigation
      - Function
        - Continue the sales pitch - they know the problem is important and they want to know that the proposed research finds the answer.
        - Describe the project in a way that shows that the approach is feasible and that describes what each part ofthe project will contribute to the answer.
        - Mention the resources to be used so that it is clear that those being requested are necessary and that those that are necessary are available.
      - Content
        - 3.1 Brief restatement of the main research question
        - 3.2 Brief restatement of the reason the main research question is important
        - 3.3 Full development of the general research approach
        - 3.4 First part of the research programme, TWTU and resources
        - 3.5 Second part of the research programme, TWTU and resources
        - 3.6 Third part of the research programme, TWTU and resources
        - 3.7 Fourth part of the research programme, TWTU and resources
        - 3.8 Statement of the dissemination approach.
        - Use tag phrases to label the themes.
    - Justification of Resources
      - Very easy to write provided you remember what it must contain
      - Must mention everything you want them to pay for.
      - Must say why cheaper alternatives won't suffice.
      - Will be more plausible if Plan of Investigation mentions resources.
    - Impact Statement
      - Brief statement of the groups who may be interested in the outcome
      - Potential impact of the first research sub-question
      - Potential impact of the second research sub-question
      - Potential impact of the third research sub-question
      - Potential impact of the fourth research sub-question
      - Potential impact of the dissemination
      - Use tag phrases to label the themes
    - WorkshopIntro
- Writing the Case for Support
- Workshop Overview
  - Rationale
    - These notes approach the problem of how to design the perfect grant application using two considerations.
    - First, we consider what funding bodies are trying to achieve when they award grants.
    - Second, we consider the process by which funding decisions are made.
    - This allows us to define the job that the case for support has to do, which allows us to develop a toolkit to build the ideal case for support.
  - writing tips
    - In order to write the case for support split it into themes and start writing the themes.
    - Themes 4, 5, 6 and 7 are the ones that define the project and they should be drafted first.
    - Theme 3 will be easy to write next.
    - So will theme 8.
    - Themes 1 and 2 will be hard to write and can be worked on bit by bit throughout the
    - time the rest of the case is being written.
    - As part of the process of refining each theme you will need to compose a distinctive phrase that identifies it. This is the phrase that completes the 'We need to know' (WNTK) and the 'This will tell us' (TWTU) in themes 4-7.
    - Every subsection of the theme should contain the distinctive phrase at least once.