

Principles of grant writing: Tips and tricks from a learner

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Life is the only art that we are required to practice without preparation, and without being allowed the preliminary trials, the failures and botches that are essential for training

Anonymous

Overview

- Planning to write a grant proposal
- What is a research plan
- Main sections of a typical grant application
- Being kind to reviewers
- Process of writing
- Common traps, problems and solutions
- Lessons learned

Before you start writing....

- Plan: time, deadlines
 - Allow time for internal review and edits
- What resources / documentation / info are required
- **Personal “review committee”** to get feedback on plan and organisation
 - senior colleagues and advisors
 - share ideas at concept, development phase
 - review draft and final application

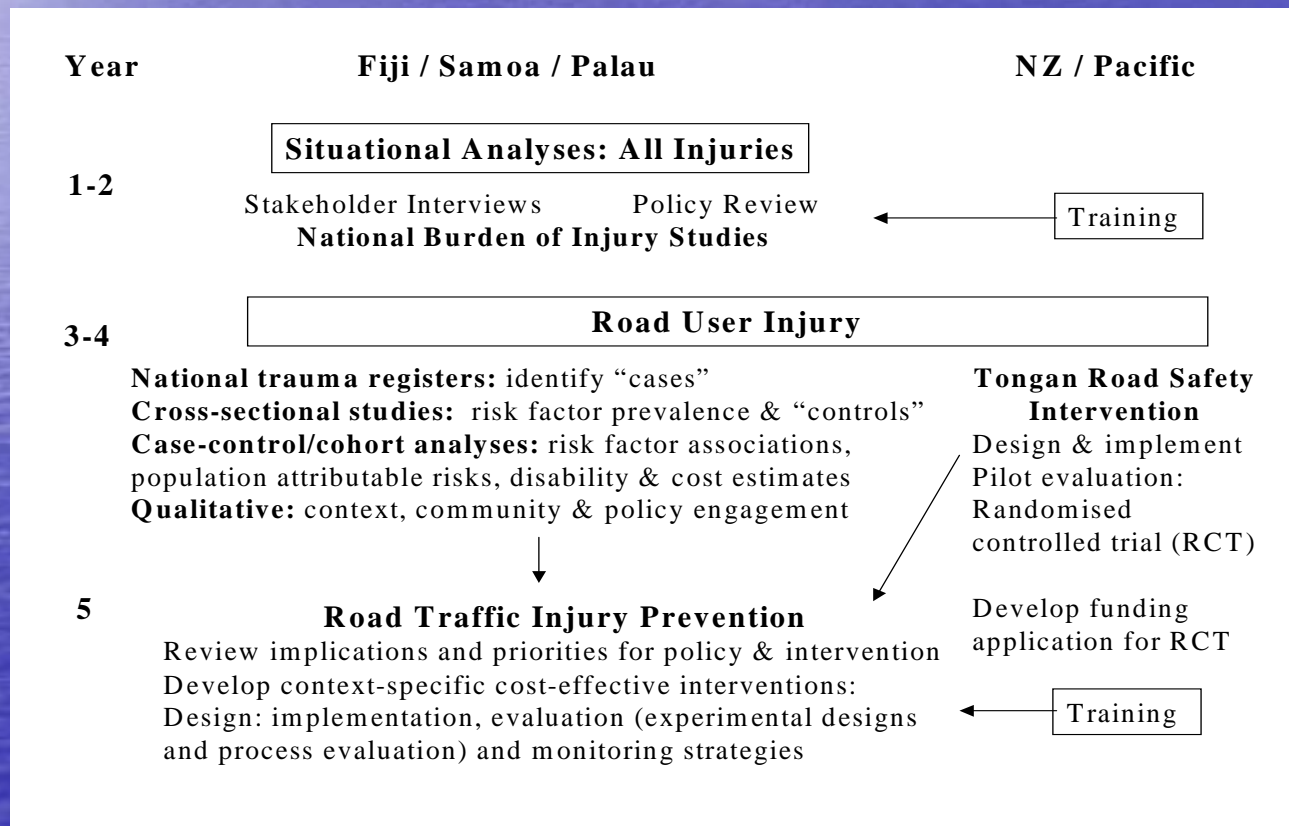
Research plan and application

- Research plan describes
 - What you propose to do
 - Why it's important
 - How you will do it
 - Why you and your team can be relied upon to deliver
- Convince reviewers
 - Hypothesis is sound and important
 - Aims are logical and feasible
 - You understand potential problems
 - You can analyse data and are committed to dissemination / informing practice

Research plan: Aims

- Objectives of your research project and what you want to accomplish
- SMART objectives:
 - Specific
 - Measurable
 - Applied (to context and methods)
 - Relevant
 - Time defined
- Don't propose too much!

Traffic-Related Injury in the Pacific (TRIP) project



Research plan: Rationale

- *Why this research and why You*
- Convey significance of proposed research and how it relates to improve health
- Show awareness of current gaps, opportunities and roadblocks in field
- Reveal intimate familiarity of field and knowledge relating to research
- Indicate why you are uniquely qualified to undertake this work
 - Prior experience, policy /cultural context
- Pilot studies and preliminary data

Research plan: design & methods 1

- *How you will perform the research*
 - Feasibility
 - Assure reviewers that you have the skills, resources, technical and analytical 'know-how'
- Link to Aims and timeline of project
- If highly innovative, indicate why you challenge existing paradigm or can assure ability to deliver
- Cite references where relevant (methods papers, guidelines / protocols, personal work in area)

Research plan: design & methods 2

- Limitations and difficulties of approach and how you will deal with them
- Ethical and legal issues (privacy / confidentiality, participant and research staff protection)
- Resource implications (opportunistic efficiencies)
- Required collaborations and 'buy-in'
- Do a personal SWOT analysis: Strengths, weaknesses, opportunities and threats

Other KEY grant sections

- Abstract / summary and overview
 - Do not do this at the last minute!!!
 - Non-technical
- Budget – get assistance, be realistic
- Investigator profiles (indicates track records and relevance for research)

Expertise and track record of research team

- Academic qualifications of research team
- Experience / knowledge in proposed research area
 - Balance track record with working relationships
 - Note the things that count for the project to work – that people bring in (through networks, prior experience)
 - Make sure that the time contributions indicated match what people can genuinely contribute
 - Focus on opportunities for training and capacity building in a realistic and committed way

Be kind to your reviewers

- Use labels, headings as guide posts
- Keep it short and simple
- Balance technical and non-technical
 - Non-technical: abstract, significance and specific aims
 - Technical: methods
- Good size font and style
- Use graphics and clear space
- Edit and proof
- Make application 'super user-friendly'

The proposal is described under the **7 headings** stipulated by the funders and addresses the **5 key assessment criteria**: 1. potential for health outcomes (O); 2. scientific merit (S); 3. demonstration of the partnership (P); evidence of capability and capacity building (C); and expertise of the research team (E). As indicated in the table below, a number of key criteria are addressed in several sections.

Sub-headings in Application	O	S	P	C	E
1. Major research goals / scientific objectives		X		X	
2. Background	X		X		X
3. Rationale for proposed research	X	X		X	
4. Research design and methods		X		X	X
5. Partners and partnerships			X	X	X
6. Training activities				X	X
7. Expected outcomes and policy implications	X	X	X	X	

Writing process

- Start with an outline
- Write a topic sentence for each main topic
- Make one point per paragraph
- Divide document into paragraphs, sections
- Include bullets, lists, graphics
- Use short sentences, strong active verbs
- Keep related ideas together and organise
- If writing not your forte, get help

After finishing writing...

- Put aside for a few days
- Check again – errors, lack of clarity, missing bits, appearance
- Internal peer review
- Edit and proof

Common traps and responses

- Unclear significance of proposed research
 - Write a compelling argument and show time is right
- Reviewers unconvinced about scientific merit
 - Ensure sound hypothesis and conceptual basis, have considered and addressed limitations of methods
 - Write to the non-expert in the field as some may be unfamiliar with methods proposed
 - Use appropriate key words
- Reviewers may not be familiar with your work
 - Show them you can do the job
- Over-ambitious research plan
 - Be realistic

Major lessons learned...

- Check out the funding source
 - Mission / orientation / assessment process
 - Website, other documentation, previous recipients
- Plan ahead – there is never too much time!!!
- Don't try to achieve your life's ambitions in one project grant. See proposals as step-wise and incremental.
- Style and organisation:
 - Write to your audience – be kind to your reviewers
 - The simpler and clearer - the better. Less is more.
- Don't try to do it alone! Writing proposals is a great way to make friends, and learn and grow in many ways.
- Be committed for the long-haul. Rejection, patience and perseverance are part of learning curve – **it's worth it in the end**

Last but not least...

- Seize opportunities to serve on assessment committees
- Be constructive in feedback when you are the reviewer rather than the reviewee
- "To strive, to seek, to find, and not to yield"