

WORKSHEET 1: DEVELOPING THE RESEARCH QUESTION

In this exercise, first state your idea of a problem that has come to you from an area of interest, from your professional practice or from the literature. Next, follow the steps to help define your research question.

1. Write down your idea of a problem:

2. Refine the problem by identifying ambiguous terms and define these operationally:

3. Write down your research question aimed at solving (a part of) the problem and include the following components:

WHAT – the outcomes (e.g. resting energy expenditure, compliance to dietary supplement): _____

WHAT – the intervention (e.g. dietary counseling, energy supplementation, nutrient intake monitoring): _____

WHO – the population to be studied (e.g. women with gestational diabetes, pediatric Crohn's disease patients, hemodialysis patients): _____

WHERE – the organization or geographical area to be studied (e.g. neonatal intensive care unit, chronic care facility, and inner city): _____

HOW – the study design (e.g. survey, randomized controlled trial, qualitative analysis): _____

WHY – Is this study worth doing? _____

YOUR RESEARCH QUESTION:

4. Feasibility check: Identify availability of subjects over the time period, and resources necessary to conduct the research. Depending on feasibility you may have to re-visit and modify your question.

REFERENCE LIST FOR DEVELOPING SUCCESSFUL RESEARCH PROPOSALS

Bailey DM. Research for the Health Professional: A Practical Guide. Philadelphia: F.A. Davis Co., 1991

Hulley SB and Cummings SR. Designing Clinical Research: An Epidemiologic Approach. Baltimore: Williams and Wilkins, 1988.

McDowell I and Newell. Measuring Health: A Guide to Rating Scales and Questionnaires. (2nd Edition), New York: Oxford University Press, 1996.

Schiller MR, Burge JC. How to write proposals and obtain funding. In: ER Monsen, ed, Research: Successful Approaches. American Dietetic Association, Chicago 1992, pp 49-69.

Cheney CL, Boushey CJ. Estimating Sample Size. In: ER Monsen, ed, Research: Successful Approaches. American Dietetic Association, Chicago 1992, pp 337-346.

Monsen ER, Cheney CL. Research Design, Analysis and Presentation. In: ER Monsen, ed, Research: Successful Approaches. American Dietetic Association, Chicago 1992, pp3-36.

Bell L. Effective Writing: A Guide for Health Professionals. Copp Clark Ltd, Mississauga, 1999, 400p.

WORKSHEET 2. CHECKLIST FOR SUCCESSFUL GRANT APPLICATIONS

1. Is the proposal within the interests and objectives of the granting agency? Is it a proposal that is more appropriate for support by another agency?
2. Is the research question an important one and is it likely to produce new or useful information?
3. Are the objectives of the project clear? Are the objectives of the project testable and achievable and is the time reference reasonable with respect to the realization of the project? If the project is part of a larger one, can the specific project/part be reported on within the time frame required?
4. Is the methodology of the proposal described in detail and does the methodology meet the objectives or adequately test the hypothesis? Is there consistency in the description of the methods throughout the proposal? Would there be better, more economical ways to undertake this proposal? Are the methods in terms of study design, selection of subjects, instrumentation (validity, reliability), analytical techniques and statistical measures sound? Is the sample size appropriate to achieve sufficient statistical power to meet the objectives?
5. Are the primary outcomes of the study clearly defined and relate to the objectives of the study? Have confounding variables and sources of bias been identified and controlled for?
6. Is the budget reasonable and adequate in relation to the objectives of the study? Have other sources of income for the project, if any been identified? Have sources of continued funding, if required, been identified?
7. Is the present state of knowledge in the area to be investigated described in a critical fashion? Is it complete and focused and does it support the need to conduct the research? Will the proposal add significantly to the state of knowledge on the subject?
8. Is the investigator qualified and is the environment in which she or he works satisfactory to carry out the project?

Adapted from: "Criteria for assessment of grant applications. CRDR 2000 Guide to Submission of Grant Applications" and from reviewer's comments of CFDR grant proposals.