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Your Education Scholarship Project:
A Planning Guide

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Prepared by the Office of Education Scholarship

Department of Family & Community Medicine

Faculty of Medicine, University of Toronto

dfcm.edscholarship@utoronto.ca

<http://uoft.me/DFCMOES>

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| --- |
| Name: |
| Hospital Site or Division:  |
| Experience with Education Scholarship Projects (select one):  |
| Little experience | Some experience | Significant experience |
| 🞎 | 🞎 | 🞎 |

What is the purpose of this guide?

This guide is intended to help you develop and implement your education scholarship project. (See Appendix 1: What is Education Scholarship?) We hope that, by answering the questions below, you will be able to work through the essential steps, consider key issues and arrive at an important question that can be answered.

If you are scheduled for a consultation, please work through **Step 1: Clear Goals**. We find that it is useful if some of the questions in Step 1 have been considered or answered prior to that meeting. We will work through this template with you as well, but please try to answer as many questions as possible before your consultation and start thinking of moving your idea (whether it begins as a new teaching idea, a frustration or a curiosity) to an implementable project plan. We understand that you may not be able to answer all the questions. The process of completing this worksheet is meant to be iterative and you will have an opportunity to revisit previous sections as your project plans proceed.

It is important to begin an education scholarship project with a clear understanding of what you intend to achieve. These questions will help you focus on the issue you are trying to address and where you hope to go with your project. These ideas will likely evolve as you move through your project, but beginning with clear goals will help you make decisions about how to conduct your project along the way.

Step 1: Clear Goals

1. What am I curious about? (an idea, a problem, an issue that you have experienced)

2. Why am I curious about this?

3. What do I hope to accomplish? e.g.:

* create a new innovation (tool, curriculum, etc.)
* conduct a program evaluation
* conduct a needs assessment
* contribute new knowledge and theory

4. How is this project important to me?

5. Does this project relate to my current academic role? 🞎 YES 🞎 NO

6. Do I *want* to do this or do I *have* to do this?

7. Do I have the time and energy to work on this project?

8. Do I have collaborators in mind?

9. Have I looked at the literature in this area?

* What is known about this issue?
* What is not yet known?

Four Important QuestionsAs you work through this guide, there are four important questions that you will need to consider in establishing clear goals for your project. We encourage you to think about these questions. Your preliminary thoughts will change as you work through this guide. Please revisit and refine your answers as you move toward your project proposal.

1. What is the purpose of your project?

2. Can you state your purpose as a question?

3. What are your objectives? Are they realistic and achievable?

4. Does your question build on current knowledge in the field of medical education?

***Keys to a successful project are a focused question, objectives that try to measure answers to the question, and methods that will seek to provide information to answer the question.***

Step 2: Adequate Preparation

As you develop your project proposal, it is important to have a solid understanding of what is already known in your subject area. It is also essential to consider your environment, the skills and resources that will be needed, and the timeline for completing all steps of the project.

**A Solid Understanding**

Education scholarship projects typically begin with a review of the existing literature because it is important to understand what is already known about your subject area. If you need help doing a literature review, contact your site librarian or the OES for some tips and support.

1. Have you looked at the current literature to find out what is already known about this area? If so, what is known?

2. What is not known? Is there anything specific that you do not know about this area and would like to understand that could be addressed by this project?

3. Will you be able to fill the identified gap in knowledge with the project findings?

4. Are there any ‘best practices’, theories or evidence that can guide you in your project?

**Environment**

Understanding your environment will afford a greater opportunity of achieving success.

1. What is the environment/setting in which the work will be carried out?

2. Who are the stakeholders in this project?

3. Who might benefit from the results of the study?

* Who do we need ‘buy in’ from?
* Who might prevent access to the data?
* Who might object to this project/innovation/study/methodology?
* Who are the target audiences of your study?

4. How will you engage the stakeholders in your plan?

**Skills and Resources**

Assembling a team that can help support your project will be critical to your success; education scholarship projects usually require multiple skill sets or multiple levels of ‘buy-in’ in order to ensure you have the resources you need to conduct the study or implement the project.

1. What skills are required to do this work?

2. With whom will you collaborate? What are their roles and responsibilities (implementation, analysis, etc.)? Who will consult or advise?

3. What are the resources required and available to do this work? Include financial, expertise and staffing, technology and space.

4. Do you need to apply for grant funding to work on this project? Do you know what grants may exist? (See Appendix 2 for a sample grant application form.)

**Timeline**

1. What is the timeline for completing the following project steps: literature review, proposal development, engaging others in the project, applying for ethics, applying for grant funding, implementing the project/study, analyzing data, disseminating results, and using findings to reiterate and develop the next project (see Appendix 3 for a timeline template).

2. If you don’t know what the timeline will look like, who can you consult with to help you understand how long this process will take?

**Having considered the above …**

1. Is the project feasible and practical within the resources, time, and expertise that you have available to you? What changes will be necessary to ensure that it can be done?

2. What are the biggest risks and challenges to the success of this project?

**Four Important Questions**Please revisit and refine your answers to these questions as you move toward your project proposal.

1. What is the purpose of your project?

2. Can you state your purpose as a question?

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Step 3: Appropriate Methods

In choosing the appropriate method, consider the goals and objectives of your project and what is feasible in your setting (see Appendix 4 for a comparison of different project types).

**If you are undertaking an innovation, evaluation or development project:**

1. What is your project question? Can the question be answered - is it too broad or too narrow?

2. What material, product or resource are you hoping to develop?

3. How will you go about developing it?

4. What will your innovation look like?

5. How will it be used and by whom?

6. How will you implement your plan?

7. How will you evaluate your plan? Thinking about your goals and objectives, which method(s) might optimize your work? Will your question be answered by using mostly numbers and statistics (in which case a quantitative approach may be best) or by using narrative or observations (in which case a qualitative approach may be best)? Do you need both (in which case a mixed methods approach may be best)?

8. Do you need ethics approval and, if so, will you seek ethics approval from your hospital or university? Do you need someone to help you with your ethics application? This site has helpful information about applying for ethics approval - <https://cfd.utoronto.ca/research/resources>.

**If you are undertaking a research project:**

1. What is your hypothesis or research question? Can your research question be answered - is it too broad or too narrow?

2. Who is your study population?

3. Describe your study design. Thinking about your goals and objectives, which method(s) might optimize your work? Will your question be answered by using mostly numbers and statistics (in which case a quantitative approach may be best) or by using narrative or observations (in which case a qualitative approach may be best)? Do you need both (in which case a mixed methods approach may be best)?

4. How will you collect data?

5. How will you manage the data? Do you need specific software?

6. How will you analyze the data?

7. Do you need ethics approval and, if so, will you seek ethics approval from your hospital or university? Do you need someone to help you with your ethics application? This site has helpful information about applying for ethics approval - <https://cfd.utoronto.ca/research/resources>.

Four Important QuestionsPlease revisit and refine your answers to these questions as you move toward your project proposal.

1. What is the purpose of your project?

2. Can you state your purpose as a question?

3. What are your objectives? Are they realistic and achievable?

4. Does your question build on current knowledge in the field of medical education?

Step 4: Meaningful Results

In the planning stage, consider how your project will contribute to the broader field of medical education.

1. How will you know if your project goals were achieved?

2. How will you verify your results?

3. What impact will these results have?

* Will the work lead to additional areas for further exploration?
* Will your results enhance existing programs or contribute to the development of a new program?
* How will your work be used by others?
* Will it be generalizable in other environments?
* Will others be able to build upon it?

4. What results would you communicate to stakeholders and when?

5. If one of your project goals is to implement a new program:

* Will the project results lead to feasible program?
* What will your implementation strategy be?
* Will this program be sustainable?

Step 5: Effective Dissemination

Sharing your findings is an important part of education scholarship. You can not only share the findings with your colleagues but you can also contribute to the literature. In essence, you add to the conversation about your topic. Even if you think nobody would be interested in your findings, you may spark an idea in others, enable change or contribute to another group’s ongoing decision-making process. Evidence-based care and education relies on the effective dissemination of findings such as yours.

**Presentations**

1. What format might you choose to disseminate your findings? (Short presentation, workshop, poster, etc.)

2. Who might be in your target audience? (students, faculty, administrators, family medicine-specific educators, wider community of educators, etc.)

3. Where might you present your findings? (committee meetings, rounds, local conferences [DFCM, etc.], national conferences [Family Medicine Forum, CCME, etc.],international conferences [STFM, AMEE, etc.]

**Print Publications**

1. What format might you choose to publish your findings? (short descriptive paper, practical paper/tips sheet, longer descriptive paper, longer research paper, etc.)

2. Who might be in your target audience? (students, faculty, administrators, family medicine-specific educators, wider community of educators, etc.)

3. Which journals might you submit to? Your chosen format will lead you to certain types of publications. It may be useful to consider where your literature review took you originally. Those same journals may be a good place to consider publishing.

**Online Publications**

1. What online format might you choose to publish your findings? (short descriptive paper, practical paper/tips sheet, longer research paper, longer descriptive paper, etc.)

2. Who might be in your target audience? (students, faculty, administrators, family medicine-specific educators, wider community of educators, etc.)

3. Which online repositories might you submit to? (DFCMOpen, Med Ed Portal, Canadian Healthcare Education Commons, etc.). Some of these venues are particularly useful for disseminating new resources or tools.

Step 6: Reflective Critique

In your initial planning stages, consider where things might lead. If your project is intended to create a new teaching tool, then you may want to consider how that teaching tool may be implemented and what intended and even unintended consequences may be generated. If your project is intended to evaluate an educational intervention, then you may consider what you will do with the findings once you have them and where things might lead next.

1. How might the results of this project inform other projects in the future?

2. How might the results of this study create a network of people with whom you could work collaboratively in future?

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Acknowledgements

We gratefully acknowledge the work of Mark Goldszmidt and the Canadian Association for Medical Education. We have developed this guide by building on their work.

1. Mark Goldszmidt & Lisa Faden, Centre for Education Research & Innovation, Schulich School of Medicine & Dentistry, January 20, 2015.
2. Canadian Association for Medical Education Workshop: Scholarship Planning Worksheet.
3. Meded Portal/AAMC, Educational Scholarship Guide, 2013.

Appendix 1: What is Education Scholarship?

Education Scholarship "refers to any material, product or resource originally developed to fulfill a specific educational purpose that has been successfully peer-reviewed and is subsequently made public through appropriate dissemination for use by others” (AAMC 2013). Another way of defining education scholarship is as “an umbrella term which can encompass both research and innovation in health professions education. Quality in educational scholarship is attained through work that is peer-reviewed, publicly disseminated and provides a platform that others can build on” (Canadian Association for Medical Education definition).

Thus education scholarship builds on the process of scholarly teaching. It may involve any of the following:

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| **1) Teaching (teaching and learning)**  |
| **2) Application (interaction between research and practice)** |
| **3) Integration (connections across disciplines and the larger context)** |
| **4) Discovery (traditional research)** |

In order for work to be considered scholarly, it needs to meet these criteria:

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| **1) It must be made public** |
| **2) It must be made available for peer review and critique according to accepted standards** |
| **3) It must have the ability to be produced [reproduced?] and built on by others** |

**How do we evaluate education scholarship?**

Glassick (2000) developed an assessment criteria framework to be used in the assessment of scholarship in education projects. The framework can be applied across diverse areas of education and includes the following categories:

* Clear goals
* Adequate preparation
* Appropriate methodology
* Meaningful results
* Effective dissemination
* Reflective critique

Many planning guides use Glassick’s criteria as an outline. As part of the Office of Education Scholarship consultation process, we have modified the tool developed by the Canadian Association for Medical Education in order to help our faculty plan their education scholarship projects.

**The following is an example of a typical education grant proposal application.**

Appendix 2: How to Write your Proposal

## Section 1: Project Team Information

**1a) Provide information related to your project team composition:** *This may include information about a single Principal Investigator or two Co-Principal Investigators, Collaborators, or Senior Advisors. We suggest you review the section regarding eligibility and team member roles if they are outlined in the call that you are responding to.*

## Section 2: Project Outline

**2a) Project Title:**

**2b) Indicate if this is an Innovation and Development Project OR a Research Project (please select one)**

[ ] Innovation and Development Project

[ ] Research Project

**2c) Executive Summary**:  *Summary of proposed project and its relevance to Education Scholarship, Strategic plans, etc. This is the last part of the proposal that you will prepare.*

**2d) Background:**  *The context surrounding the project; a literature review and summary of the current state of knowledge regarding this topic.*

*It is really important to know what others already know and have published in this area.*

* *What did they do? How did they do it? What did they learn? What were the outcomes?*
* *You need to know that you are building on what is already known and not reinventing the wheel. This is a key component in being scholarly about your work.*

**2e) Rationale and perceived educational gap or need:** *Description of the impetus for proposed project, the gap or need identified, and detail of perceived value of project outcome.*

* *Why do you want to do this?*
* *What is missing now?*
* *How will this project help the learner? The teacher? The program? Other stakeholders? (Who will care?)*

**2f) Objective(s):** *What do you hope to measure/prove/test and be able to comment on at the end of the project?*

**2g) Project Description:**

*Innovation and Development project:*

* *Hypothesis or question: If you have a hypothesis or question it is important that you refine it and make it very clear. The methodology that you use depends on knowing what your question is.*
* *Methodology: how you are going to develop your innovation (material, product, resource), implementation plan, evaluation approach (study population, design, data collection, data analysis)?*

 *Research project:*

* *Hypothesis or research question*
* *Methods (study population, study design, sample size, data collection, data analysis)*

**2h) Outcomes leading to Integration and Impact:**  *Description of the potential for enhancement of exis*ting or future programs including:

* enhancement of professional competencies
* plan for project sustainability
* dissemination plan or knowledge translation strategy

## Section 3: Project Feasibility and Budget

**3a) Team, resources and vendors**

* *Description of the team including roles and responsibilities of team members.*
* *Description of resources available and required (financial, expertise, technology).*

**3b) Budget:** *Provide a table with* *details. It is very important to review the budget guidelines regarding what expenses are and are not allowed.*

|  |  |  |
| --- | --- | --- |
| **Project Title:** |  | **PI:** |
|  | Funding Sources |
| **Personnel (include names and role on project of each staff member; include salary, stipends and benefits)** | **Grant Fund** | **Other/ Matched Funds** |
|  |  |  |
|   |   |  |
| **Materials, Equipment and Other** |  |  |
|   |   |  |
|   |   |  |
| **One Year Totals** | **$0.00** | **$0.00** |

**3c) A project timeline/schedule**:  *Provide* *details of deliverables, time estimation and project schedule.*

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| **Project Timeline** |
| **Project Task/Component** | **Jul** | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** |
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## Section 4: Additional Application Components

**4a) Ethics**

* Does this project require Research Ethics Board (REB) approval?
* Will you be applying to your hospital or the university REB?
* Please note that the University of Toronto REB application requires a signature from your Department Chair.

**4b) Reference List** (Optional): Please provide a complete list of supporting references.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Project Task/Component** | **July**  | **Aug** | **Sept** | **Oct** | **Nov** | **Dec** | **Jan** | **Feb** | **Mar** | **Apr** | **May**  | **June**  |
| Complete a literature review |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop the proposal |  |  |  |  |  |  |  |  |  |  |  |  |
| Assemble the project team |  |  |  |  |  |  |  |  |  |  |  |  |
| Apply for ethics approval |  |  |  |  |  |  |  |  |  |  |  |  |
| Apply for grant funding |  |  |  |  |  |  |  |  |  |  |  |  |
| Implement the project |  |  |  |  |  |  |  |  |  |  |  |  |
| Analyze your data |  |  |  |  |  |  |  |  |  |  |  |  |
| Disseminate your results |  |  |  |  |  |  |  |  |  |  |  |  |
| Develop your next project |  |  |  |  |  |  |  |  |  |  |  |  |
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Appendix 3: Project Timeline Template

Appendix 4: Types of Education Scholarship Projects

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| **INNOVATION, EVALUATION** **& DEVELOPMENT PROJECTS** | **EDUCATION RESEARCH PROJECTS** |
| GOAL: to solve an education problem by making changes (either radical or incremental) to established education practice or inventing new methods, techniques and strategies. | GOAL: to advance the theoretical basis of health professionals education by combining education theory with rigorous methodology to resolve scientific questions and/or discover new knowledge. |
| Tightly linked with practice and can be entirely dissociated from theory | Intrinsically linked with theory and can be dissociated from practice |
| Can be translated back into research when appropriate. | Can be translated back into practice when appropriate. |