

**Centennial College  
Research Application  
Sample Form**

The following research application form describes a fictitious study using the Centennial College Ethics Committee application form. Resources and instruments are fictitious. The form is intended as a sample; researchers will need to modify the form to meet their individual study needs.

***Answer only those questions relevant to your proposal.***

**Name of Principal Researcher:** Alison Researcher

**Institution Name** Centennial College

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**Name(s) of other applicants and employment/affiliations:**

Tara Smythe, Professor, London University

**Are any of the applicants Centennial College Employees?** yes

**Name of Advisor (if applicable):** N/A

**Institutional affiliation:**

**Phone/Email**

**Title of Project:** Ambulance and emergency students' perceptions of empowerment

**Proposed start date of project:** September 2006

**Completion date:** May 2007

**Where is the research to be conducted (e.g., in class, on campus, off campus)?**

Data collection will take place on-line. Student participants will log on to a password-protected website to answer a questionnaire at three data collection time points.

**Has the study been reviewed by other research committees? If yes, attach copy of decision and application.**

Yes – see copy of approval letter from University Hospital, Appendix A

**Status of Funding:**

1. Pending
2. Funded
3. Other
4. None

**Research Sponsor or Funding Agency:**                      **Amount:** N/A

**SUMMARY**

**Provide a brief (less than 300 words) summary of the proposed study using layperson’s language. Include the rationale, purpose/objective/goal, procedure for collection and analysis, reporting, and benefits to the College (where applicable).**

The proposed study will examine changes in Ambulance and Emergency (A & E) students’ perceptions of empowerment and reflective thinking over a two year period during their professional education. Data will be collected, by online questionnaire, in March 2006, September 2006, and March 2007.

The purpose of this study is to test empowerment theory in health science students. It is proposed that changes in student perceptions of structural empowerment will have an effect on their ability to reflect and self-evaluate as health professionals.

Examining students’ perceptions of empowerment will contribute information that educators can use to enhance students’ learning experiences. Insights gained will assist educators to work collaboratively with students to develop and sustain learning activities that promote empowering learning environments and potentially impact student’s ability to self-evaluate as health professionals.

**BODY OF PROPOSAL**

**The following are guidelines to assist you with identifying the information which the committee may require concerning your project. Not all items listed below will be relevant for all projects. Please discuss your project using these questions as a guideline. The “Guidelines for Assessing Applications” (see attached) will be used to evaluate the comprehensiveness of your application.**

## **PROTOCOL**

### **1. What is the purpose of the study?**

The purpose of this study is to test Lee's (1993) theory of empowerment with students. Relationships among environmental empowerment and reflective thinking will be examined. Further, changes in student perceptions of empowerment and reflective thinking will be examined as they transition from year 2 to year 3. It is proposed that students who perceive environmental support and empowerment in their educational program will also experience psychological empowerment leading to increased participation in reflective thinking.

Students' perceptions of empowerment in their learning environments (both classroom and clinical) will be linked with the learning outcome of reflective thinking. We will explore the following research questions:

1. Does student perception of environmental empowerment have a direct effect on the ability to reflect and self-evaluate?
2. Does reflective thinking change over time in students who perceive high levels of environmental empowerment in their learning environment?

### **2. What is the relevance or significance of your study?**

College education is critical in preparing students for the opportunities and challenges of a continually changing health care system. To graduate professionals who will successfully practice in complex work environments, an educational environment must allow students to develop and refine knowledge and skills they will need to become empowered professionals. Health science classroom and clinical environments provide the ideal opportunity for students to engage in empowering behaviours and for teachers to be role models for students preparing to enter the profession (Smith & Lee, 2005). Part of students' work is to engage in reflective thinking. Students who become reflective professionals will be better prepared to work through complex problems often encountered in practice (Sinclair, 2005). Results of the study are expected to contribute to the body of educational theory that supports professional education.

### **3. What is the setting?**

Participants will be recruited from four A and E programs in Ontario including: w, x, y and z. Data collection will occur on-line, at three points in time – March 2006, September 2006, and March 2007.

### **4. What sample/population will be used? How will you choose your sample? What is your sample size? How was the sample size determined?**

Second year A & E students comprise the population of interest. Students will be randomly selected from four A and E programs in Ontario.

Inclusion criteria include:

Second year A& E students, enrolled full-time in a health science program. An estimated 300 students are required for statistical reasons. We will recruit 330 students to allow for a 10% attrition rate.

**5. What is your design? (e.g., pre-test/post-test, descriptive). What is the timeline?**

A quasi-experimental, longitudinal research design will be used. Data will be collected at three time points – March 2006, September 2006, and March 2007.

**6. What are the treatments, interventions or manipulations?**

Not applicable.

**7. What will the sample/population be asked to do? Give a step-by-step listing of your procedures.**

- Students randomly selected to participate will receive an email with the letter of information and link to the study website (Appendix A).
- Those who choose to participate will log on to a password-protected website and respond to the questionnaire (Appendix D) at their convenience. The questionnaire (Appendix D) will be uploaded to a secure electronic data collection and analysis program called Survey Monkey. Participants will be provided with a password to access the four-part questionnaire which will take approximately 20 minutes to complete. The questionnaire will be available on-line for a two-week period.
- At the mid point of each data collection time period, students' will receive a reminder email (Appendix E) that only one week remains to complete the questionnaire. This process will occur at each of the three data collection time points. Completion of the questionnaire at each time point will imply consent.
- Participants will be asked to follow instructions provided to create an ID number that will be used each time the questionnaire is completed, to allow accurate linking of data across three time points.
- Participants will complete the online questionnaire again in September 2006 and March 2007. Email reminder notices will be sent prior to the second and third data collection time points, containing the link to the study website and password to access the questionnaire (Appendix C). Students who complete questionnaires at each of the three data collection time points will be eligible for a draw for a \$50 gift certificate for Chapters bookstore.

**8. List the instrumentation, interview guides or protocol to be used and attach**

**copies. Describe the psychometric properties of the instruments.**

The instruments that will be used to measure major study variables include: the Education Empowerment Scale –(Smith, 2003); The Reflective Practitioner Questionnaire (Cook, 2000); and a researcher-developed demographic questionnaire (All surveys are included in Appendix D).

The Education Empowerment scale consists of 20 items and Cronbach alpha values for the subscales ranged from 0.72-0.85, and the total scale 0.94 (Smith, 2003). Respondents indicate their perception of empowerment using a five point Likert scale.

The Reflective Practitioner is a five point Likert scale consisting of 24 items (Cook, 2000). The author provides evidence for validity. Results of the Cronbach alpha test for reliability for the scale are consistently greater than .70.

**9. What are the projected results?**

The purpose of this study is to test Lee's empowerment (1993) theory of Power in Organizations with health science students. Changes in student perceptions of empowerment and reflective thinking will be examined as they transition from year 2 to year 3. Overall, it is anticipated that all students, regardless of program site, will perceive structural and psychological empowerment in their learning environments, and engage in higher levels of reflective thinking at time one and time three, as compared to time 2 (the transition).

**INFORMED CONSENT**

**10. How will participants be approached to be a part in your study? (attach copies of advertisement, information sheets, etc.)**

Permission will be sought from deans/directors/chairs of A and E programs at the four sites to recruit student participants for the study (Appendix A).

The researcher will post a notice on college Blackboard or WebCT sites to inform students about the study. An administrative assistant at each of the programs will be contracted to randomly select students, and forward the letter of information and link to the study website via email (Appendix B).

**11. How will participants be informed and their consents obtained? (attach copy of consent form)**

Randomly selected students will receive an email with the letter of information and consent form with a link to the study website (Appendix B). Those who choose to participate will log on to the password-protected website and respond to study questionnaire (Appendix D) at their convenience. Full participation will entail completion of the questionnaire at three data collection time points over two years. Each online

survey will have a note advising participant to “click here” if they wish to complete the questionnaire, which implies consent.

**12. Describe the relationship between the researcher(s) and the participant(s).**

There is no relationship between the researcher and the potential student participants.

**13. Are participants competent to consent? If not, describe the alternate source of consent. If a minor, describe the procedure to be used.**

Yes, participants are second and third year A and E students.

**14. What procedures will be followed for participants who wish to withdraw at any point during or after the study?**

Student participants will be informed that participation is voluntary and that their teachers will not know who has chosen to participate. If they choose not to participate, this will not have any impact on their courses or program standing. Students will be reminded they may refuse to participate, refuse to answer any of the questions, or withdraw at any time during the study, without repercussions of an academic or personal nature. Participants will receive this information in the online consent form (Appendix B), and will be reminded again on the introductory page of the study website, before beginning the questionnaire.

**BENEFITS AND RISKS TO COLLEGE AND PARTICIPANTS**

**15. What are the benefits to the participants, the College community, or society that would justify asking for their participation?**

The participants themselves are unlikely to benefit. They may however, experience satisfaction knowing they will be contributing to health science education research.

**16. What inducement or compensation is offered to participants? Will they be reimbursed for expenses? If yes, provide details.**

As an incentive, student participants who complete all three data collection time points will be eligible for a draw for a \$50 gift certificate for Chapters bookstore. A draw will take place at each of the four programs. Students will learn of the incentive through the letter of information. At the second and third data collection time points, they will be reminded that eligibility for the draw requires participation at all three time points. The draws will take place in March 2007 after the final data collection time period is complete. At the end of the questionnaire, at the third data collection time point, participants will be prompted to send an email to the administrative assistant, with the subject heading "Participation in a research study". The administrative assistant will

draw the name out of a hat, email the chosen student and the student will arrange to pick up the gift certificate from the administrative assistant at their college.

**17. What are the ethical implications and considerations?**

Longitudinal study designs often encounter problems of attrition. Thus, it is hoped including an incentive may prompt students to participate and maintain their participation in the study over time.

**18. Will the participants be fully informed about the nature and the purpose of your research, and about any risk to them? If no, please elaborate.**

Yes. Participants will learn the purpose of the study, and details of participation at the introduction to the study and in the online consent.

**19. Is there any potential for emotional distress? If yes, please elaborate.**

There is no known or anticipated potential for emotional distress.

**20. Will the participants be alone (isolated) with the researcher at any time?**

No.

**21. Is there any potential for physical harm? If yes, please elaborate.**

No.

**22. Is there any potential for infringement of rights (e.g., confidentiality, privacy and human rights)? If yes, please elaborate.**

No.

**23. How will confidentiality be maintained in data collection, storage, and disposal? Where and how will the data be stored, and who will supervise access to the data to ensure confidentiality is maintained?**

An administrative assistant at each collaborative program will conduct the randomization and email selected students the letter of information and link to the study website. The researcher will not have access to student information.

Once data collection is complete and data are linked, identifiers will be removed from the data file, and data analyses and reporting will occur as grouped data.

Participants will access the questionnaire through a secure, firewall protected, password enabled website link. The questionnaires will be completed electronically using a software program called Survey Monkey. This program was developed specifically for

electronic data collection. All electronic records and data sets will be password protected, with access limited to the research team. Any data that are printed will have identifiers removed. Hard copy and computer disks containing data and analyses will be kept in a locked filing cabinet in the researcher's office. Email distribution lists of potential subjects will be retained on a password-protected computer by the administrative assistant at each site. These lists will be deleted following data collection.

Data will be retained for three years after data collection has been completed. All hard copy information pertaining to the study will be shredded and computer disks containing raw data files and statistical analyses information will be deleted three years after data collection is complete.

**24. Are there any other potential risks of any kind? If yes, please elaborate.**

There are no known or anticipated risks or discomforts associated with participation in this study.

**25. For any of the above risks which you may have described, please indicate how they will be minimized or removed.**

Not applicable.

**IMPACT ON CENTENNIAL COLLEGE**

**26. Are there any implications for the reputation of Centennial College? If yes, please elaborate.**

None anticipated, since the College name will not be used in any reports of the study and because information about the College will not be collected.

**27. Describe anticipated use of Centennial College resources (e.g., class time, space, materials).**

The study will require the assistance of a program administrator to initiate email contact with students.

**28. What are the benefits to the College?**

Centennial college educators may benefit from the findings of this study. Results will provide educators with insights in partnering with students to structure learning environments in such a manner that students perceive empowerment throughout the education.

**29. Will the results be published? Will the College be identified in the final report?**

Manuscripts will be prepared for publication and presentations at conferences will occur.



**Please describe other pertinent information.**

None.

**Note: After approval, the committee must be notified *if any changes are made in the protocol.***

**Principal Researcher (Signature):** \_\_\_\_\_

**Principal Researcher (Name Printed):**

**Date:** March 6, 2006

**Please contact the Applied Research Director for Centennial College if you have questions or would like your proposal critically reviewed before sending it to the committee. Results of the review will indicate which areas may need to be revised.**

**Within six months of completion of your project and preparation of your report, a full copy of the report should be forwarded to the Chair of the Research Ethics Committee.**

**Note: Freedom of Information Document must accompany this form.**

## **References**

Cook, A. (2006). The reflective student: a study of change over time. *Educational Review*, 2, 1, 123-130.

Smith, L. (2003). A tool for measuring student empowerment. *Nursing Research*, 5,4, 222-230.

Smith, R. & Lee, M. (2005). Power and student learning. *Educational Review*, 4, 325-333.

Sinclair, L. (2005). Leveling the playing field. *Health Science Quarterly*, 6, 244-255.