Assessing the Effectiveness and Appropriateness of the Technical Communication Certificates at IUPUI

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Project Dates

May 15 – July 15, 2007

Project Checklist

   X   Statement of support from the department chair or school dean by e-mail to lhouser@iupui.edu - as a separate file not included in the proposal.

   X   Simple budget **:** See the final paragraph of the proposal

   X   IRB (Institutional Review Board) approval. (This will be filed when the proposal is accepted.)

Abstract

This proposal sets out a plan to assess IUPUI's graduate and undergraduate technical communication certificates specifically in the areas of whether the abilities students need for workplace settings are being taught and whether the current interdisciplinary nature of the certificates is an effective approach. The approaches to this assessment will involve interviewing various stakeholders in order to gain multiple perspectives and will also involve completing a self-study questionnaire in order to establish a baseline for future work. Results will be used to update the programs' curricula.

Purpose of the project

The technical communication certificates at IUPUI were originated several years ago, but to this date no formal assessment of their effectiveness has been conducted.

For more information on the undergraduate Technical Communication Certificate, see: http://www.engr.iupui.edu/tcm/fcertificate.shtml.

For information about the Technical Editing concentration in the graduate Technical and Professional Editing Certificate, see:

http://www.liberalarts.iupui.edu/iat/Pages/AcademicPrograms/ProfessionalEditing.htm

Now that both programs are several years old, it seems prudent to conduct a formal analysis of both. Insights gained during this assessment can help revise the existing programs to serve the needs of stakeholders more fully. Furthermore, the Technical Communication program and the English Department are considering collaborating on an undergraduate minor in technical writing that may differ from the current undergraduate certificate, so the results of this assessment may guide the creation of that minor.

Specifically, we wish to examine the following issues:

- Because technical communication is an applied, professional field, we will also raise questions as to whether the knowledge and abilities that students gained in their courses of study adequately prepared them for diverse workplace challenges. If we discern areas in which they were under-prepared, we will employ those insights as we consider revisions to our curricula. We will also attempt to discern the approaches and skills that have served our graduates well so that we can continue to employ and expand on those strengths.

- Both certificate programs are interdisciplinary, offering options drawn from fields such as technology, the sciences, English, technical communication, journalism, communication studies, informatics, and organizational leadership and supervision. One area of inquiry for this study will be to discern whether this interdisciplinary approach is beneficial. If so, we may look at ways to expand and incorporate other disciplines. If not, we may look at ways to focus the nature of the certificate course offerings.

Intended outcomes of the project

The outcomes will be quantitative and qualitative data that we can employ to improve the programs in the two areas discussed in the previous section. We intend that these results will also assist us in being more accountable to stakeholders relating to the Certificate Programs.

Assessment method(s) that will be used in the project.

I envision two general methods for this project:

- I will interview approximately 10 graduates, 10 employers, and 10 members of the Indiana chapter of the Society for Technical Communication about their experiences with and perceptions of the certificate programs. I will focus specifically on their perceptions of the necessary skills and on whether the interdisciplinary approach is useful. (See possible interview questions in Appendix A.) I will file the

required permissions for IRB review when the PRAC grant is approved.

- With the collaboration of colleagues, I will complete the self-study questions that the national Council on Programs in Technical and Scientific Communication has developed for programs that wish to undergo a review. (See http://www.cptsc.org/review/selfstudy.pdf for a copy of the questions. These questions will be modified to fit the programs' unique interdisciplinary situations.) Answering these questions will help provide a baseline for the current programs in order to assist in setting directions for the future.

Data analysis

Because the answers to interview questions will be mostly qualitative, I will analyze them for trends in the answers provided. There may be some quantitative analysis of these answers as well, but I anticipate that these will not be predominant.

Specifically, I plan to employ the taxonomy developed by Kenneth Rainey of "core" competencies and possibly some of the "enabling" competencies for technical communicators in order to discern if those competencies are being addressed in the programs. (See Appendix B for Rainey's list of these competencies.) In addition, I'll supplement Rainey's taxonomy as needed with factors provided by Whiteside's taxonomy. (See Appendix C.)

Methods of assessment and dissemination of the results

As a product of formative assessment, the results will be used to reshape the Technical Communication certificate programs and will potentially be used in marketing our programs to prospective students.

In addition, the findings may provide material that I can use to present to the annual gathering and Proceedings of the Council on Programs in Technical and Scientific Programs. Other publications specializing in technical communication may find our results of interest, especially as the results test and further refine recent thinking about the competencies of technical communicators.

Intended use of findings for program improvement

We are in the process of revising the certificate programs. We want to be sure that we use the results of the assessment to continue what is working well and to improve the areas in which we need improvement, especially in the area of the interdisciplinary nature of the certificates.

The TCM Program hopes soon to create an Industrial Advisory Council to guide us in the revision and on-going activities of the undergraduate certificate, so the results from this study could also be used to guide that process.

Budget

The requested $2500 will provide a partial summer salary for Marjorie Rush Hovde, the current Coordinator of the undergraduate Technical Communication Certificate and primary advisor for the Graduate Certificate in Technical Editing. She will dedicate approximately 80 hours of her time between May 15 and July 15, 2007 to completing the proposed work.

Appendix A: Possible Interview Questions

Possible questions for Certificate recipients:

In what year did you complete the TCM Certificate?

What positions have you held since then?

What abilities did you need in those positions?

To what extent did you cultivate these abilities in the Technical Communication Certificate program?

How useful was the option for taking courses in multiple disciplines for the certificate?

What abilities would you like to see the program teach future students?

Possible questions for employers:

What abilities do you look for in a new technical communicator?

What are the most important communication abilities?

What are the most important technical abilities?

What are the most important general abilities?

Which of these abilities should IUPUI prioritize for preparing future technical communicators?

Possible questions for members of the Indiana Society for Technical Communication:

How did you prepare for your current career?

What are the most important communication abilities for technical communicators?

What are the most important technical abilities?

What are the most important general abilities?

Which of these abilities should IUPUI prioritize for preparing future technical communicators?

Appendix B

Rainey's Core and Enabling Competencies for Technical Communicators

Core Competencies: Advocacy, Design, Execution, Use of Media, Research Skills, Use of Support Tools, Usability

Enabling Competencies: Analytical and Conceptual, Interpersonal, Self Management, Information Product Development and Management, Career Management

("ET10: Core Competencies for Technical Communicators" by Kenneth Rainey in **TC-Forum**. http://www.tc-forum.org/topicedu/et10core.htm October 6, 2001. Retrieved on October 16, 2006.)

Appendix C

Whiteside's Areas of Skills for Technical Communicators

- Written Communication
- Theory
- Oral Communication
- Project Management
- Visual Communication
- Scientific Knowledge
- Software Tools
- Problem Solving Skills
- Computer Languages
- International Communication
- Business Operations
- Business Correspondence

(p. 310 – "The Skills that Technical Communicators Need: An Investigation of Technical Communication Graduates, Managers, and Curricula" by Aimee L. Whiteside in **The Journal of Technical Writing and Communication**, vol. 33(4) 2003.)