

# Nexus Learning Grant Application, 2015-2016

## **1. Project Abstract**

This project will identify and promote best practices for implementing technology-assisted peer review in a Nexus Learning environment (**PURPOSE**). Existing paper-based peer review methods have produced limited success. However, recent pedagogical literature provides tentative support to using technology-assisted peer review, although a systematic research outlining its benefits in a traditional classroom setting is missing. Research undertaken in studio classes at Philadelphia University by Alex Messinger and Lisa Phillips, professors of interior design, provide initial evidence of positive results for the use of Google Docs software for student peer reviews (Messinger and Phillips 2015) (**RATIONALE**). Our project advances that research by examining whether this pedagogical tool would serve the needs of a traditional classroom setting in the liberal arts by employing a more technologically versatile and student-friendly tool. Our additional goal is to examine whether anonymity in peer review would impact the quality of student feedback (**GOAL**). It will be executed in two sections of two courses in fall 2015, COLLST 499: Contemporary Perspectives and AREAST 205: East Asia. The study will be bolstered by data acquired from previous iterations of courses and a fall roundtable for faculty who have incorporated peer reviews in their courses. We will advance the goals of Nexus Learning by disseminating our results online and in workshops with the university community and outside forums (**IMPLEMENTATION**).

## **2. Explanation of How Project Advances Nexus Learning**

This project proposes to conduct action research in the classroom to advance Nexus Learning in multiple ways, including promoting collaborative and active learning in the liberal arts courses at Philadelphia University.

- **Collaborative Learning**: The pedagogical tool we plan to test -- Google Docs for student peer reviews -- will permit a technology-assisted collaborative learning process among students and faculty in the classroom. Compared to traditional paper-based peer reviewing, Google Docs provides a technologically-versatile and student-friendly online environment that permits anonymous and non-anonymous peer reviewing and constructive commentary (Cordell 2011). The software also allows for faculty to offer real-time and delayed feedback to student peer reviews, thereby enhancing the collaborative nature of the peer review experience.
- **Active Learning**: By making the reviewing process more engaging and real-time, there would be an enhanced level of active learning taking place for both the reviewer and the reviewee.
- **Interdisciplinary Pedagogical Transfer**: Our project furthers Nexus Learning by collaborating on pedagogical strategies across disciplines and will advance our understanding of how students can transfer skills between disciplines and classroom settings.

### **3. Specific Project Goals and Learning Outcomes**

Our goal is to use technology-assisted peer review to enhance active learning in more traditional classroom settings, as well as to develop students' confidence and skills to review globally-orientated work. Our use of technology for peer review is intended to overcome some of the hurdles currently faced in this process that limit the effectiveness of student peer reviews.

#### **Learning Outcomes:**

- Discover how a change in the peer-review process to a technology-assisted one can impact and improve student performance (feedback and learning) on non-major, globally-oriented assignments.
- Understand how anonymity in the review process (double-blind) impacts the nature and quality of student feedback and learning.
- Find new and innovative ways to model, track, and assess students' peer review work, in light of the limited success of traditional methods of peer review, especially those used in writing classes. Specifically, determine whether technology-supported peer review increases the students' involvement, depth of comments, and seriousness of critique.

### **4. Description of Activities and Timeframe**

#### **Overview:**

Summer 2015 - Course Design and Preparation; Fall 2015 - Project Implementation and Data Collection; Spring 2016 - Data Analysis and Dissemination of Results and Findings.

#### **Breakdown (2015-2016):**

July - August: Adapt syllabi and update course materials.

Fall Semester: Conduct peer reviews for various assignments in the designated courses.

September: Coordinate with partners for Fall roundtable on peer reviews in the classroom.

October: Hold roundtable on peer review in a Nexus Learning environment.

December: Survey student responses to peer review assignments. Compile data (students' work, instructor assessment, student progress towards learning outcomes, student evaluations) from peer review assignments in courses.

January: Analyze data from surveys and assignments.

February: Draft summary of findings and best practices. Prepare presentation for workshops for the PhilaU community and Penn's Center for Teaching and Learning. Prepare material for website.

March: Disseminate findings, promote best practices, and consult and advise interested faculty through workshops and website. Attend conferences to present results.

## **5. Project Assessment**

The project will adopt a social scientific research and analysis approach and follow the “control group vs. experimental group” framework to model the assessment of the project goals. Within this framework, we will conduct both longitudinal (across semesters) and cross-sectional (across sections and courses) analyses. This pedagogical tool (Google Docs) and the Nexus Learning exercise would be deemed successful if there is evidence of a statistically significant positive difference in student performance between groups and semesters. The project personnel are experienced researchers in social science research methods and in using content analysis as a research methodology.

## **6. Documentation and Dissemination**

In addition to a report narrating analyses and assessment, we will compile suggested best practices for implementing technology-assisted peer review to be disseminated in the following ways.

- Multimedia webpage on Philadelphia University site with project findings, best practices for educators, sample materials, and links to resources.
- Workshop at Philadelphia University to assist university community in applying what we have learned about peer review to improve their Nexus Learning curricula.
- Workshop at Penn’s Center for Teaching and Learning to share work with regional peers.
- Presentations at conferences (POD, AAS) to share research with educators in our field.

## **7. Project Personnel (Both Principal Investigators)**

Dr. Madeleine Wilcox: Part-time Faculty, CSHLA. Professor for AREAST 205: East Asia. Madeleine will implement new peer review assignments in her two sections of East Asia in Fall 2015. She will also apply her knowledge of pedagogy and programming as a former Graduate Fellow for Teaching Excellence at Penn’s Center for Teaching and Learning to analyze data as well as prepare and promote materials, web resources, and events for dissemination of project’s findings.

Raju Parakkal: Assistant Professor of International Relations, CSHLA. The project will be carried out in two sections of the Capstone Seminar class, Contemporary Perspectives, that I will teach in fall 2015. I will be responsible for data collection and undertaking the statistical analyses.

## **8. Budget Narrative and Worksheet**

Worksheet is attached. The budget (\$5000) includes the following items:

- Faculty stipends for course and project design, project implementation, data collection and analysis, and dissemination (approximately 250 hours of total work). \$3,000 (Raju Parakkal - \$1000; Madeleine Wilcox - \$2000).
- Funds covering expenses for the roundtable and two workshops. Includes food, honoraria, travel, and promotion. \$750 (\$250 per each)
- Funds for faculty personnel's participation at one national or regional conference each. Includes travel, lodging, and registration fees. \$1,250

## **9. Attachments**

### Works Cited

- Cordell, Ryan. "Using Google Docs Forms to Run a Peer-Review Writing Workshop." *The Chronicle of Higher Education*. May 4, 2011. Web.
- Messinger, Alex and Lisa Phillips. "Increasing Student Learning through Collaborative Online Methodologies." Presentation, February 23, 2015. Philadelphia University.