

# SoTL Grant Application Form

(2017-2018)

To be considered for funding, your research proposal must align with the following definition of the Scholarship of Teaching and Learning, SoTL, endorsed by the University Faculty Council in January of 2014:

*"The rigorous investigation of student learning, with the purpose of developing novel teaching methodologies and practices that can lead to the measurable enhancement of student learning. The results of the investigation are made public through quality scholarly outlets and widely-accepted conferences and general or discipline-specific journals."*

Proposals are due to the Office for Teaching, Learning, and Assessment by **Thursday, September 10<sup>th</sup>, 2017** and should be [submitted online](#). Award recipients will be notified by Tuesday October 6<sup>th</sup>, 2017. Funded recipients will need to submit a final report for the grant project to TLA by September 1<sup>st</sup>, 2018.

## I. Basic Information

Title of Project: **Embracing Student-Centered Learning: Using Asynchronous Technology within a Co-Curricular Program**

### Investigator(s) Information

#### Principal Investigator:

Name: Terry Vaughan III  
College: N/A  
Department: Enrollment Management and Marketing (EM&M)  
Phone Number: 773.325.4719  
Email Address: t.vaughan@depaul.edu

#### Other Investigators (Co-Pi):

Name	College	Department

For each investigator, please include an abbreviated CV using the SoTL grant CV template.

Will your project involve human subjects?  Yes  No

If Yes, you must include evidence of IRB approval or exemption, or of having applied for IRB approval or exemption. Please note that before any granted funding can be made available, you will be required to provide evidence of IRB approval or exemption.

## Requested Funds

Amount Requested (up to \$2,500): \$2,400

## **II. Project Abstract (250 words or less)**

The Arnold L. Mitchem Fellowship Program, also known as the Mitchem Fellows Program, is a co-curricular DePaul program aimed at providing underrepresented undergraduate students an undergraduate research experience in preparation for doctoral study. The program serves as a pathway for future undergraduate research experiences, such as the McNair Scholars Program. Each academic year, the program serves 10-15 students and aims to help students develop critical thinking and writing skills through completing a research project. Students' research projects often come in the form of literature reviews but may come in the form of empirical studies depending on their level of research interest and academic preparedness. Toward making program services more student-centered, this project seeks to understand the influence asynchronous technology has on student learning as they complete a research project within a co-curricular context.

## **III. Project Description (1000 words or less)**

### Purpose of Project

A teaching issue that emerged during previous years in the Mitchem Fellows Program was that the pedagogy was more teacher-centered than student-centered. For example, the Mitchem Fellows Program teaches students how to complete meaningful literature reviews; however, these lessons are primarily taught through a top-down, lecture format. After listening to students' feedback about the program through one-on-one meetings, it became clear that this top-down, teacher-centered approach might not complement students' ability to learn within a co-curricular context. As such, this project considers how incorporating asynchronous technology, in addition to face-to-face interactions, may be pedagogically beneficial for student learning.

**Research question:** How does implementing asynchronous technology within the Mitchem Fellows Program influence students' ability to brainstorm, design, and complete a research project within a co-curricular context?

### Theoretical Framework

I approach this project from a student-centered, constructivist approach with the awareness that learning starts with students "formulating ideas into words and building on these ideas through discussion, reactions, and responses [from] their peers" (Arbaugh & Benbunan-Fich, 2005, p. 128). Accordingly, my use of asynchronous technology will consist of learning opportunities where students have time and space to engage and interact with online videos and discussions in a student-driven and

collaborative manner. To develop and support these learning opportunities, three fundamental concepts inform the design of this project:

**1. Blended learning**, also known as hybrid learning, is a student-centered approach to learning that combines face-to-face interactions with online interactions. An example of a blended learning experience is a course that posts course content online where students can watch videos at their own pace, and then meet with their teacher and peers during meetings, seminars, or events. Previous studies show that through a blended learning approach, students have more flexibility to learn and can develop a deep sense of ownership when it comes to their education (Smyth, Houghton, Cooney, & Casey, 2012, p. 467).

**2. Teacher as facilitator** consists of viewing student learning as a product of guiding students through lessons, discussion, and assignments without limiting students' ability to engage, interact with, and challenge such content. While the teacher is an authority that can support students' learning, and thus able to spark ideas and challenge students' ways of thinking, ultimately learning depends on students' willingness to apply their ideas and skills to a subject. For example, while a teacher has the responsibility to shape topics, questions, and interactions with students through online discussions, students have an equal responsibility to think with, respond to, and challenge themselves and their peers towards making these interactions meaningful. This teacher-student relationship is demanding for both teachers and students, where the teacher has to be a reliable guide and students have to be responsible for their learning (Coppola, Hiltz, & Rotter, 2002; Kochtanek & Hein, 2000, p. 87).

**3. Collaborative learning environments** entail that students participate in lessons and contribute to discussions by sharing their ideas and skills with peers. Asynchronous technology helps to develop this environment by allowing students to interact with peers through text, audio, and video formats. Thus, through these online modes of collaborative interactions, students can participate in lessons and discussions "at the times, places, and pace that is most convenient for him or her" (Hiltz & Goldman, 2005, p. 6). This ability to learn anytime, anywhere, also known as ubiquitous learning, allows students to engage content at their own pace while communicating with teachers and peers.

### Research Methodology

In pursuing the research question regarding how asynchronous technology influences students' ability to brainstorm, design, and complete a research project within a co-curricular context, a graduate research assistant and I will document and analyze quantitative and qualitative data of students' involvement using asynchronous technology within the program. We will seek to understand the connection between lessons taught and student outcomes. The study will consist of 10 students during the 2017-2018 academic year, which is an ideal population given that it allows for fruitful online

interactions without overwhelming students and the instructor(s) throughout the academic year (Rovai, 2000, p. 289). Data will come in the form of:

- i) Student Responses to educational videos and group discussion posted online in Desire2Learn (these responses will include students' reflections on weekly themes)
- ii) Monthly student progress reports based on one-on-one meetings between students and Mitchem Fellows Program staff (these reports are a summary of how students incorporate program lessons into their academic habits, which would now include discussions of technology use)
- iii) Designing and using a rubric to evaluate students' final assignments – literature reviews (evaluating literature reviews through a rubric will allow us to assess student learning gains within the concern of using asynchronous technology)

By collecting and triangulating these forms of data, the graduate research assistant and I will be able to generate codes and create themes about how the implementation of asynchronous technology influences students' ability to brainstorm, design, and complete a research project throughout the academic year within a co-curricular context.

#### Impact of Project:

This project will inform future practices for implementing and assessing the use of asynchronous technology within the Mitchem Fellows Program. For example, these findings will influence how the program plans its curriculum and pedagogy, explores the possibility of using various online learning formats, trains staff in the delivery and assessment of online learning, in addition to how the program incorporates student feedback to guide the use of asynchronous technology. Furthermore, these findings may contribute to broader discussions about the relationships between online learning and pedagogy within a co-curricular context and be beneficial for similar co-curricular programs concerned about improving student learning through student-centered practices.

#### Dissemination of Results

Based on the project's findings, I plan to present a report to the Center for Access and Attainment (CAA) about the use of asynchronous technology in hopes of supporting more student-centered pedagogies within co-curricular programs through online learning. Equally important, I will submit a manuscript based about these findings to the *Council on Undergraduate Research Quarterly* to showcase how online learning can inform pedagogy in co-curricular / undergraduate research programs within higher education.

## IV. Project Plan and Timeline

Academic Year 2017 -2018	
August 4 <sup>h</sup> , 2017	Received IRB Approval (Completed)
September 15 <sup>th</sup> , 2017	Finalize the design of online content using asynchronous technology
October 9 <sup>th</sup> , 2017	Implement online content into the program curriculum
October 13 <sup>th</sup> 2017	Continuously document one-on-one meetings, seminars, and events while tracking online content from Desire2Learn
March 21 <sup>st</sup> , 2018	Complete hire of graduate research assistant and update IRB approval with the addition of a co-investigator
May 18 <sup>th</sup> , 2018	Finalize assessment rubric design to evaluate final assignments (used for evaluating students' literature reviews)
May 25 <sup>th</sup> , 2018	Present project (in progress) to Center for Access and Attainment (CAA; Monthly meeting includes the following program audience: CAA Research Lab, Student Support Services (SSS), McNair Scholars Program, College Connect, and Mitchem Fellows Program.
June 1 <sup>st</sup> , 2018	Collect and analyze data form Desire2Learn, final assignments, and student progress summaries: coding and generating themes
June 29 <sup>th</sup> , 2018	Complete data analysis and a project narrative report draft
July 26 <sup>th</sup> , 2018	Review, edit, and finalize project narrative report
August 31 <sup>st</sup> , 2018	Submit manuscript to the <i>Council on Undergraduate Research Quarterly</i> and submit project narrative report to SoTL

## V. Budget

**Student Research Assistant:** The Mitchem Fellows Program will use the \$2,400 for hiring a graduate research assistant that will support the collection, organization, and analysis of data in addition to helping create presentation material to disseminate results and findings (i.e. a project narrative report and a PowerPoint presentation). We will hire the graduate research assistant from April 2018 - June 2018 (12 weeks) at \$20 per hour for 10 hours per week.

## VI. References

- Arbaugh, J. B., & Benbunan-Fich, R. (2005). Contextual Factors that Influence ALN Effectiveness. In S. R. Hiltz & R. Goldman (Eds.), *Learning Together Online: Research on Asynchronous Learning Networks* (pp. 123–144). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Coppola, N. W., Hiltz, S. R., & Rotter, N. G. (2002). Becoming a Virtual Professor: Pedagogical Roles and Asynchronous Learning Networks. *Journal of Management Information Systems*, 18(4), 169–189.
- Hiltz, S. R., & Goldman, R. (2005). What are Asynchronous Learning Networks? In S. R. Hiltz & R. Goldman (Eds.), *Learning Together Online: Research on Asynchronous Learning Networks* (pp. 3–18). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Kochtanek, T., & Hein, K. (2000). Creating and nurturing distributed asynchronous learning environments. *Online Information Review*, 24(4), 280–293.
- Rovai, A. (2000). Building and sustaining community in asynchronous learning networks. *Internet and Higher Education*, 3, 285–297.
- Smyth, S., Houghton, C., Cooney, A., & Casey, D. (2012). Students' experiences of blended learning across a range of postgraduate programmes. *Nurse Education Today*, 32, 464–468.