

Using Analytics to Compare Student Demographics
For Different Delivery Methods (Face to Face, Hybrid, Online) of
AMST-A 100 What is America?

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Abstract

Vivian Nun Halloran will use both archived and current student data from the introductory course offered by the department of American Studies, AMST-A 100 What is America? to determine what impact the introduction of online and hybrid instructional methods for the class in 2015-16 has had in terms of student learning outcomes and performance. Since 2006, the department has been offering this course in various different configurations of face to face instruction (35 person class, 60 person lecture, 120 person lecture, 240 person lecture); we are about to scale it down to 150 people lectures. Dr. Halloran first taught the course online in the summer of 2015 and the hybrid version was first offered in the fall of 2015. As we prepare to scale the course down to a 150 person lecture, the department wants to make informed decisions about how the course's size and format have impacted student learning. We would also like to ascertain what impact online instruction is having on student learning, and determine whether specific elements of the online or hybrid environment might hold promise for integration into face to face dynamics, etc. Dr. Halloran's faculty colleagues in the department are willing to share their student data for Face to Face instructional versions of A1001; we will also archive data on AI taught sections offered in the Spring of 2016 for purposes of comparison. The overall goal for this project is to determine who takes online versions of A100 and how their learning differs or parallels that of students who enroll in face to face versions of the same.

Project Description

1. Purpose of the investigation along with specific research objectives the type of data that will be analyzed

The Department of American Studies has offered its introductory course, AMST-A 100 What is America?, since 2006 and all its faculty members have agreed to teach it on rotation. The course had been taught in a face to face format, whether as a small course (35 student) up to a large lecture format with Friday section (240 students). Thanks to an online teaching grant from the College of Arts and Sciences, Dr. Vivian Halloran taught the course as a 107 person fully-online summer course (first 6 weeks summer session) and a hybrid course with Friday sections (216 students) during fall 2015. In Spring 2016, the department will be offering the course in two formats: one large face to face lecture course with Friday sections, and four AI-taught self-contained sections capped at 40 students apiece. Finally, the department plans to offer 150 student large lectures as both face to face and hybrid formats during academic year 2016-17.

As a unit, the department wants to use learning analytics to evaluate the **impact of these different formats in student learning** and also to determine to what extent the **online or hybrid format attracts a different demographic** of student from the face to face versions.

Our research objectives are as follows:

1. Determine impact of instructional method on one A&H Gen Ed learning outcome common to all versions
2. Determine impact of instructional method on one WLC Gen Ed learning outcome common to all versions
3. Ascertain the demographics of students who enroll in the different versions of the course (historical snapshot)
4. Determine whether any aspects of the hybrid or online pedagogy may be successfully adapted to face to face courses to enhance learning outcomes with respect to A&H or WLC Gen Ed criteria.

2. Significance and impact the study may have upon undergraduate learning

The results of this project will empower AMST faculty, both new and returning, to tailor their teaching practices to accomplish one of two primary tasks in different degrees: to recruit freshmen and sophomore students to the major and/or minor in AMST by highlighting the interdisciplinary's flexibility and its use value as a way to encourage more informed citizenship both in the United States and in the university; and to satisfy the Gen Ed learning outcomes by highlighting how various different aspects of the idea of "America" entail regional, national, and even global interconnections.

If there is a demonstrable difference in the student demographics attracted to either face to face formats or hybrid or online, this information will inform the department's decision to restrict online or hybrid versions to upper classmen only or to reserve face to face sections for underclassmen.

The results of this assessment will help the department of American Studies scaffold learning outcomes appropriately for the rest of our courses. The key determination we hope to make is to figure out whether AMST-A 100 in any format attracts any future majors/minors or if we should concentrate all of our recruitment efforts at the 200 level courses.

3. Anticipated outcomes from the work and how they will contribute to the success of student learning at Indiana University, whether that be within a course, a curriculum, a program, or institutionally

We anticipate that the outcome of this use of learning analytics will help the department of American Studies better **align the delivery method** of its signature introductory course in order to **maximize student learning of the different demographics** we suspect the course attracts: those upperclassmen who need the Gen Ed credit before graduating (summer online and fall hybrid courses) and those freshman and sophomores who are fulfilling Gen Ed but might find AMST an interesting area of study and could thus be recruited towards the major or minor.

4. Research methodology

Dr. Halloran proposes to look over the student data generated by various AMST-A 100 instructors during AY 2015-16, the year when the online and hybrid versions of the course were introduced. She'll compare the semester long fall hybrid data to student data from the Spring 2016 lecture course offered by Dr. Paul Anderson. Dr. Halloran will compare student data from the summer 2015 6 week student data with Dr. Karen Inouye's student data from the 2nd 8 weeks face to face version of A100 offered in fall 2015. She will determine an A&H and WLC learning outcome to compare against, and deploy the power of the learning analytic software she'll learn as part of the Learning Community to determine the relevance of demographics and the impact of the learning outcomes per instructional method.

5. Means by which you will measure the success of your project

The department of American Studies will consider the project successful if we generate enough data to better understand which student demographic is drawn to what kind of course we offer. We will also consider it successful if we determine which learning outcomes to use as valid measures of student learning.