The HumAn Learning Project: Humanities, Analytics, & Learning in a Multi-Section General-Education Course

Principal Investigator: Jennifer Meta Robinson, Anthropology
Year/Semester Awarded: Spring 2015
Number of undergraduate students who were subjects of your study: 2719
Number of graduate students who were subjects of your study: 30

Executive Summary
The HumAn Learning Project uses learning analytics to defamiliarize a multi-section freshman course on ethnography in order to triangulate on the student experience and revise the course for greater learning opportunities. All big courses represent significant investments by the sponsoring departments, their schools, the graduate-student section leaders, and the undergraduate students who hope they auger a successful college career. This project investigates student success in a single course that enrolls 800-1000 students per year, taught in small sections by 10 graduate-student instructors per year. It establishes, with evidence, that variations in student learning exist across sections of a large course, identifies factors that contribute to the variability of success among student cohorts, and highlights opportunities to improve the experience of both students and instructors. Leverage points among the patterns in demographics, teaching methods, and learning outcomes can be used to revise this course, and others, so that they foster greater student success in learning, retention, and selection of major.

Phase 1 of the study was conducted during 2015. Using institutional demographic and registration data, we make several significant findings: lower success rates for African-American, first-generation students, and white male students in addition to a higher percentage of withdrawals by international students. Although all of these findings recapitulate campus-wide trends, it is important to seek ways to disrupt them in this particular course. The actions under consideration are as follows:

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<thead>
<tr>
<th>Opportunity</th>
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<tr>
<td>Because international students are at higher risk of withdrawing…</td>
<td>• Offer sections for international students</td>
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<tr>
<td>Because withdrawals happen clusters (deadlines, exams)…</td>
<td>• Provide timely course-wide interventions</td>
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<tr>
<td>Because students may need additional help than the classroom or office hours can provide…</td>
<td>• Work more closely with athletics and writing center tutors on how to coach our classroom assignments</td>
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While primarily structural revisions are logical places to initiate large-scale impact given the size of the course, the challenges presented by content should also be considered. To what extent are those inherent and to what extent are they mutable. We need to consider, for example, how to

1. address under-preparation in skills of reading, writing, studying, class participation that disadvantage some groups of students more than others.
2. make course content accessible. For example:
The comparative, interpretive, and relativistic nature of the content will be more challenging to dualistic thinkers (e.g., freshmen/sophomores).

Examples from American and popular middle-class culture may exclude some other groups of students.

The notion of a “performative self” may be new to certain groups of students (perhaps some white men) in ways that it is not for others (perhaps some women and some men of color or international status).

If addressed adequately, the revised course could improve student retention and success in the first two years as well as increase learning of important anthropological ideas among a broad sample of undergraduates.

**Narrative**

The HumAn Learning Project uses learning analytics to defamiliarize a multi-section freshman course on ethnography in order to triangulate on the student experience and revise the course for greater learning opportunities. All big courses represent significant investments by the sponsoring departments, their schools, the graduate-student section leaders, and the undergraduate students who hope they auger a successful college career. This project investigates student success in a single course that enrolls 800-1000 students per year, taught in small sections by 10 graduate-student instructors per year. It establishes, with evidence, that variations in student learning exist across sections of a large course, identifies factors that contribute to the variability of success among student cohorts, and highlights opportunities to improve the experience of both students and instructors. Leverage points among the patterns in demographics, teaching methods, and learning outcomes can be used to revise this course, and others, so that they foster greater student success in learning, retention, and selection of major. Phase 1 of the study was conducted during 2015.

**Initial Findings**

To date, the most significant findings of the study use institutional demographic and registration data to determine: lower success rates for African-American, first-generation students, and white male students in addition to a higher percentage of withdrawals by international students.

**Reflection about the Process**

Although all of our findings recapitulate campus-wide trends, it is important to seek ways to disrupt them in this particular course (or indeed in any course in which they can be discerned). The learning analytics data provides us with a baseline from which to measure the success of innovations for at risk groups.

Accessing and working with the student learning analytical data was slower and more fiddly than anticipated. It was not until May that the initial data was received, and into July we were still uncovering problems with its completeness. (E.g., initially it erroneously indicated that only 100 of 2700 students in the course were first generation students.)

As a result, progress on the study was slower than expected and no interventions could be deployed in time for Fall 2015. However, we now have a better handle on the form the data may come in, and initial findings will impact subsequent phases of the study.
Connections to the Field and Disseminating the Findings

Several interventions in the structure and teaching of the course are planned, based on the results of the study. The interventions in the course that are under consideration include:

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While primarily structural revisions are logical places to initiate large-scale impact given the size of the course, the challenges presented by content should also be considered. To what extent are those inherent and to what extent are they mutable. While we are not going to change the course content or water down standards, we need to consider, for example, how to

1. address under-preparation in skills of reading, writing, studying, class participation that disadvantage some groups of students more than others.
2. make course content accessible. For example:
   - The comparative, interpretive, and relativistic nature of the content will be more challenging to dualistic thinkers (e.g., freshmen/sophomores).
   - Examples from American and popular middle-class culture may exclude some other groups of students.
   - The core course notion of a “performative self” may be new to certain groups of students (perhaps some white men) in ways that it is not for others (perhaps some women and some men of color or international status).

If addressed adequately, the revised course could improve student retention and success in the first two years as well as increase learning of important anthropological ideas among a broad sample of undergraduates.

Phase 1 of the study, now completed, uses statistical markers of learning in the form of demographics and registration data to describe student movement into, through, and beyond the course. In addition, we piloted research with AIs through a small focus group and survey. Phase 2 (2016) will include investigation into longitudinal issues such as withdrawals, retention rates to second semester and sophomore year, 4- and 5-year graduation rates, and declared major. In addition, we will make comparisons among sections (which was begun with GPA in Phase 1). Phase 3 (2017) will involve interviews with graduate student instructors and their students in order to pilot integrative, humanistically-informed case studies of teaching/learning that that can be shared meaningfully with instructors in A122 and other courses.

This effort toward bringing the human element to “big data” represents an important emerging development of how learning analytics can be used and will propose ethical and efficacious uses of them in the future throughout the field.
Dissemination of the study findings is already underway. In addition to an on-campus presentation sponsored by the Center for Innovative Teaching and Learning on November 19, 2015, a peer-reviewed conference paper will be presented at the American Anthropological Association meetings in Denver on November 18, 2015. Furthermore, a journal article and other conference papers, including at the 2016 meeting of the International Society for the Scholarship of Teaching and Learning and the 2016 Lilly Conference at Miami University, are proposed.
The HumAn Learning Project

Humanities, Analytics, & Learning in a Multi-Section General-Education Course

Principal Investigator: Jennifer Meta Robinson, Anthropology
Graduate Student Research Team: Rebecca Butlerac, Communication and Culture; Maithreyi Gopalan, Public Policy; and Bridget Yuhua, School of Education

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INITIAL FINDINGS

To date, the most significant findings of the study use institutional demographic and registration data to determine: lower success rates for African-American, first-generation students, and white male students in addition to a higher percentage of withdrawals by international students.

CONNECTIONS

Although all of our findings recapitulate campus-wide trends, it is important to seek ways to disrupt them in this particular course (or indeed in any course in which they can be discerned). The learning analytics data provides us with a baseline from which to measure the success of innovations for at risk groups.

While primarily structural revisions are logical places to initiate large-scale impact given the size of the course, the challenges presented by content should also be considered. To what extent are those inherent and to what extent are they mutable?

If addressed adequately, the revised course could improve student retention and success in the first two years as well as increase learning of important anthropological ideas among a broad sample of undergraduates.

REFLECTIONS

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INTERVENTIONS

Because international students are at higher risk of withdrawing...

Because withdrawals happen in clusters (deadlines, exams)...

Because students may need additional help than the classroom or office hours can provide...

In addition to the above interventions, we will address course content. We will not change the content or lower standards, but will consider:

How to address under-preparation in reading, writing, studying, and class participation that disadvantage some groups of students more than others.

How to make course content more accessible for student groups, including

Dualistic thinkers (e.g. freshmen) who struggle with the course's comparative, interpretive, and relativistic nature.

Students excluded by examples drawn from American middle class culture.

Students who struggle with the core course concept of a "performative self" that may be more familiar to others.