

**The HumAn Learning Project:**

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

Jennifer Meta Robinson, PhD

Departments of Communication & Culture and Anthropology

[jenmetar@indiana.edu](mailto:jenmetar@indiana.edu)

## **Abstract.**

The HumAn Learning Project (Humanities, Analytics, & Learning in a Multi-Section General-Education Course) uses learning analytics to triangulate on student success in a multi-section freshman course. 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 the variability of student success across sections of a single course –seeking patterns in demographics, teaching methods, and learning outcomes that can be used to gain greater student success in future iterations of this course. Moreover, it will identify insights to transfer to other multi-section courses. The investigation of this particular course, Communication and Culture CMCL C122 that enrolls 1000 students and employs 10 AI per year, is timely because, as a result of the creation of the new Media School, the course will move to a new department in the College of Arts and Sciences beginning Summer 2015. In its new home in Anthropology, the course will serve as the prerequisite course for the new certificate in Culture in Communication (under review) and will be cross-listed with the Media School. Thus, the study will assist a smooth transition and improved fit for this course as it undergoes revision for its new position in Anthropology, the certificate, and Media. The project will also act as a necessary first step toward further research. It will lay the groundwork for a second, extended study (with additional funding, later) that pilots an integrative, humanistically-informed portrait of teaching/learning that marries qualitative and quantitative elements so that they can be shared meaningfully with instructors in the humanities. This effort toward humanizing “big data” represents an important conceptual development of this resource that will allow its ethical and efficacious use in the future.

### **Project Description (3 page maximum):**

- **Purpose of the investigation.** The purpose of the HumAn Learning Project is to triangulate on student success by compiling and analyzing numerous baseline factors that can be gathered in quantitative form and begin to flesh those out with qualitative information. In the short term, the goal of the project is to establish with evidence the common knowledge that variations in student learning exist across sections of a large course, identify factors that contribute to the variability of success among student cohorts, and begin to address points of opportunity that will improve the experience of both students and instructors. In addition, the project seeks to pilot an integrative model of analysis, one that combines quantitative and qualitative data to create a humanistically-informed portrait of teaching/learning that can be shared meaningfully with instructors in the humanities as well as others.
- **Research objectives.** The primary objectives of the research are to improve student success and instructor experience in a multi-section, general education course in the humanities. Specifically, it seeks to improve these elements in Communication and Culture C122 Interpersonal Communication.

Research questions informing the study include:

- Which student cohorts succeed in Interpersonal Communication?
- What courses do students take the following semester, and what majors do they enter?
- What variations in student and instructor experience occur across sections?
- What opportunities may improve student engagement and success?
- What opportunities may improve instructor satisfaction and success?
- How do the “high impact practices” used in this course (i.e., undergraduate research, collaborative assignments, diversity and global learning, social connections) correlate with student success and instructor experience?
- What narrative descriptions of student success and instructor work can be developed to speak meaningfully to other humanities instructors?

Overall, the research design makes four major moves:

1. It documents the performance of students and instructors through important markers of their experience.
  2. It seeks patterns in any variability across sections (in terms of instructional design, grade point average, course evaluations, time of day, etc.)
  3. It identifies opportunities for leveraging change.
  4. It proposes a richer model for describing the teaching and learning experience by integrating quantitative and qualitative data.
- **The data** gathered to address these objectives will include:
    - Student demographic data (e.g., Registrar data on year, gender, citizenship, transfer status)
    - Student success data (e.g., Registrar data on course grade, GPA, major, retention)
    - Instructor performance data [e.g., midterm and final examination design, evaluation of exam questions according to Bloom’s taxonomy, survey data from the Center for

Postsecondary Research's pilot "Faculty Survey of Student Engagement for Graduate Student Instructors" (FSSE-G, which I'm in touch with), course evaluations, and section time and day of week]

- Instructors' reflective data (e.g., focus group data from the FSSE-G and reflective narratives that build on my prior research with/on graduate student teachers)
- ***Significance and impact on undergraduate learning.*** Interpersonal Communication (CMCL C122 now and ANTH A122 beginning Summer 2015) enrolls 500 students per semester and supports 10 graduate student teaching assistantships per semester. As such a large course, it represents an important investment by the sponsoring department, the College of Arts and Sciences, and, not least, first-year students who hope for a good launch to their college career. This project proposes to use learning analytics to understand the learning experience of students and instructors across all sections of the course in coordinated ways that heretofore have not been possible. The primary goals are undergraduate retention and success.

Although there are limits to revising a large course that provides financial support and professional development for graduate students, we are still ethically obliged to seek the course design that best fosters success for both undergraduates. The timing of this study is particularly apt because, as a result of the creation of the new Media School, this heavily enrolled course will move from Communication and Culture to its new home in Anthropology as of Summer 2015. Moreover, in Anthropology, the course will serve as the prerequisite course for the new certificate in Culture in Communication (currently under review) and will be cross-listed with the Media School. So, not only will this study uncover the functioning of a mega-course it will also provide baseline data so the course makes a smooth transition to new obligations in Anthropology, the certificate, and Media.

Three additional, longer-term areas of impact are anticipated. First, I assume the study will uncover workings of this multi-section, general education course that will bear on other such courses in other fields, some of which may be online. Second, because "learning analytics" suggests a quantitative approach to understanding teaching and learning, I wish to extend the study's impact by reporting its results in accord with the language, priorities, and methods of the humanities, as well as other fields, possibly extending powerful teaching innovations to that large segment of the faculty. Finally, I will seek additional funding, later, to develop the potential for "filling out" the baseline data collected here with stories—creating an integrative description/analysis of the relationships between teaching and learning that expresses the richness of the human experience of teaching and learning in a particular course with both quantitative and qualitative information. In this way, the project in the long term seeks will not only make quantifiable gains on learning and teaching but also triangulate on a complex, humanistic portrait of them in action.

- ***Anticipated outcomes and their contribution to the success of student learning at IU.*** Anticipated outcomes include a more refined understanding student and instructor experiences, their intersections, and their leverage points for improvement. With a clearer understanding, we will be able to refine this course and others in the future to serve

contemporary students better and to extend learning in purposeful ways, including through better deployment of “high impact practices,” which are not magic bullets but must be used well. The course already includes several high impact practices identified by the National Survey of Student Engagement to enhance student engagement in college (i.e., undergraduate research, collaborative assignments, diversity and global learning, social connections), but we have not investigated student and instructor experience of them in this course for the purposes of refining teaching preparation, for example. Moreover, we can not only identify and protect the positive experiences students have been having in Interpersonal Communication as it moves departments but also improve it to better fit its role in new curricula and in the pathways students create as they move into subsequent courses and majors. In short, we can fine-tune this course as a foundation for undergraduate success, levelling the playing field across sections and across student cohort groups. Finally, developing a model for marrying quantitative “learning analytics” with humanistic descriptions about teaching and learning quality could open new conversations and collaborations among faculty engaged in undergraduate teaching.

- **Research methodology.** If funded, this research will require IRB approval. This is a mixed method study. It will rely on quantitative data—from the Registrar, the FSSE-G (a new, 2014 pilot study of the Faculty Survey of Student Engagement designed especially for graduate-student instructors), course evaluations, and examinations—to group and compare cohorts of students, instructors, teaching methods, and class sections. This quantitative analysis will help identify points of action for improving learning and serve as a framework for identifying points at which a richer description would be useful in understanding the teaching and learning experience. So, for example, a trend that identified nation of origin as factor in learning and teaching might signal a good place to supplement the quantitative data with reflections from instructors and students. Reflections could be solicited by email from instructors or appended to course evaluations for students. The goal would be for the methods and data types to complement and inform each other, creating a robust explanation of complex phenomena, providing finely-grained behavioral components for an expansive (i.e., realistic and field-based) understanding of teaching and learning. While quantitative data would provide easily viewed, assembled, and parsed information, the qualitative data piloted would supplement that picture with instructional insights, affective factors, decision-making, and meaning-making. I will seek assistance for manipulation of quantitative data.
- **Measures of success.** Success will mean we have assembled information that describes patterns in learning and teaching in CMCL C122/ANTH A122, identifies areas of concern that can be remedied in future iterations of the course, and transfers to other contexts.
- **Previous research results.** Previous assessments of this course were based on enrollment, course evaluations, and teaching observations. A more sophisticated evaluation can draw on the data and methods described and prior mixed method research funded by the Teagle Foundation to prepare graduate students to teach with intention toward certain student learning outcomes (Robinson et al, 2013; Robinson et al forthcoming 2014).

- Short CV - maximum of 4 pages, see attached.
- Nominating letter - from Professor Jane Goodman, Chair of the Department of Communication and Culture, under separate cover.
- Bibliography
  - Bloom, Benjamin S., Krathwohl, David R., Masia, Bertram B. "Excerpts from the 'Taxonomy of Educational Objectives, the Classification of Educational Goals, Handbook I: Cognitive Domain'." In *Bloom's Taxonomy: A Forty-Year Retrospective*. Lorin W. Anderson and Lauren A. Sosniak, eds. Chicago: University of Chicago Press, 1994. 9-27.
  - Indiana University. "Faculty Survey of Student Engagement for Graduate Student Instructors 2014." December 17, 2013. <http://fsse.iub.edu/FSSE-G/pdf/FSSEG14SurveyInstrument.pdf>
  - Robinson, J. M., K. Kearns, M. Gresalfi, A. Sievert, and T. Christensen, "Teaching on Purpose: A Collegium Community Model for Supporting Intentional Teaching." *Journal on Excellence in College Teaching*. Forthcoming 2014.
  - Robinson, J. M., M. Gresalfi, A. K. Sievert, T. B. Christensen, M. K. D. Kearns, and M. E. Zolan. "Talking Across the Disciplines: Building Communicative Competence in a Multidisciplinary Graduate-Student Seminar on Inquiry in Teaching and Learning." In *The Scholarship of Teaching and Learning In and Across the Disciplines*, K. McKinney, ed., Bloomington: Indiana University Press, 2013. 186-199.