

Implementing Learning Outcomes Assessment in Education Abroad: Program-level Assessment for Instructional Improvement versus Systemic Assessment for Decision-Making*

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The following document discusses learning outcomes assessment in education abroad in three sections. First, it presents some rationale and some best practices for the kinds of assessments that study abroad program directors might undertake in order to improve their instructional practices in the specific programs they run. Next, it presents some rationale and best practices for more systemic assessments of learning outcomes that accrue from education abroad. The presumption here is that stakeholders like university administrators and funders find that kind of systemic evaluation most compelling in making the case for the value-added benefits of studying abroad. The final section is a detailed account of the steps that comprise an effort to assess the impact of studying abroad on college graduation rate. This final section draws on the experience of the GLOSSARI project which tabulated institutional data for nearly 20,000 education-abroad students and 17,000 domestic-only students.

Program-level learning outcomes assessment

Program directors who are committed to quality improvement know the value of systematic evaluation. Say you are teaching a class in art history in Florence, and you add a new course objective emphasizing the political functions of public art for state buildings. So you deliberately devote time to explicitly framing Donatello's bronze *David* and Michelangelo's marble *David* within that political context. How do you know if this program innovation has helped you achieve your broader objective of sensitizing students to art as politics? Perhaps for the past several years you have been assigning students to analyze architectural adornment on the exterior of the Cathedral of Florence. If you have been saving copies of these essays, you can see how many of your students mentioned political themes when describing the bas-reliefs of the Campanile or the bronze doors of the main portal. After "tweaking" the class by emphasizing the political context of the *David* statues, you give that same assignment to your current cohort of students and assess whether students have assimilated that political analysis in describing the Cathedral. When conducting such program-level outcomes assessment you can keep yourself honest by adopting the following practices:

1. Choose outcome indicators that map closely onto your pre-stated course objectives.
 - a. Thus program assessment starts with careful articulation of intended learning outcomes

* Adapted from Donald L. Rubin and Paul Matthews, "Learning Outcomes Assessment: Extrapolating from Study Abroad to International Service Learning"

- b. Published commercial or research instruments may or may not match your objectives. Never select an instrument just because it has been “validated” or it is convenient to administer/score.
 - c. In most cases, individual program evaluation requires at least some “home grown” assessment tools. Very often it requires a systematic lens to use in examining student learning artifacts (student papers, projects, portfolios).
 2. Before you begin this year’s “teaching experiment,” describe in detail how you will operationalize indicators of student learning (e.g., what will count as a “mention of a political theme” in a student response?)
 3. Consider whether any factors other than your course modification might have wrought any change you notice (e.g., a local exhibit of political graffiti which students have attended and discussed).
 4. Be careful of confusing normal year-to-year variation in student performance with evidence of an effective (or failed) teaching innovation. Meaningful evaluation of an instructional practice can require multiple administrations...and lots of patience.

Systemic learning outcomes assessment

As valuable as is program-level learning outcomes assessment for quality improvement, the audience for such studies is limited mainly to the program directors, instructors, and perhaps colleagues who are working on similar programs. Other stakeholders—such as university administrators, donors and funders, and legislators--will find the learning outcomes story compelling only if data represent broader education abroad enterprises. Students and parents (very important stakeholders, indeed) likewise want education abroad advocates to prove that studying abroad generally adds true value to a college education.

Convincing systemic demonstrations of value-added in this domain require two conditions.

1. Conclusions about systemic learning outcomes need to be based on the experience of numerous education abroad classes over many iterations, that is, when data are aggregated.
 - a. Data may be aggregated across (i) various programs, (ii) across several years, (iii) across several institutions, or (iv) all of the above.
 - b. Data aggregation in learning outcomes assessment for education abroad is important for another reason. Some college populations—e.g., African Americans, STEM majors, nontraditional students—tend to be under-represented in education abroad. It is only by compiling data from many study abroad programs that we can obtain a large enough sample to draw meaningful conclusions about the effects of studying abroad on learning outcomes for these groups.
2. Conclusions about systemic learning outcomes require comparisons between students who have experienced education abroad and peers who have not.
 - a. All students mature and learn throughout their college careers (we hope). If you detect growth in a learning outcome indicator observed just prior to study

abroad departure, compared with just upon return, how do you know that growth was due to the study abroad experience? Students who studied domestically during that same time span might very well evince a similar increment in learning. To demonstrate value added attributable to studying abroad, those students must evince a greater increment than domestic students do.

- b. Students who study abroad are a select group on several dimensions—e.g., choice of major, SES, GPA, prior cosmopolitanism, and progress toward degree. To ascertain the value-added dimension of studying abroad, research designs must minimize these “confounding” factors as possible explanations for learning outcomes.
 - i. One strategy for minimizing the impact of confounding factors is to match samples of education-abroad students with domestic-only students. Thus for example, one ought to compare students who studied abroad as juniors with students who were juniors at the same time, but never studied abroad. Studies which simply compare graduation rates between first-year cohorts who studied abroad and those who did not study abroad are unconvincing. How meaningful is it to compare students who have survived two years of college with those just starting out? (Across all U.S. institutions, 33% of college students stop at the end of their first year.)
 - ii. Another strategy for more meaningful comparisons between education-abroad students and domestic-only students is to statistically control for differences. Thus, for example, if education-abroad students enjoy the advantage of high GPA before they ever study abroad, you can use the variable *GPA semester prior* as a covariate to control away that “nuisance variance.”
3. Stakeholders are impressed by “hard” indicators of learning outcomes. Attitudinal and dispositional outcomes like world-mindedness or cultural relativism are key values for education abroad. But the meaning of these constructs is often abstruse, and in practice they are tied closely to the particular instruments used to measure them.
 - a. The most convincing indicators of learning derive from institutional data such as graduation rate, graduation GPA, pass rates on professional certification and accreditation processes, and career attainment for alumni.
 - b. Certain disciplines also offer relatively standardized ways to demonstrate subject matter mastery. One example is ACTFL oral interview scores for proficiency in world languages.

A practical application: Conducting systemic assessment of graduation rate attributable to studying abroad.

This illustration draws on the work of the Georgia Learning Outcomes of Students Studying Abroad Research Initiative (GLOSSARI).[†] The GLOSSARI data base began with 31,000 students who had studied abroad over a period of 10 years. It added institutional records of 17,000 domestic-only students. It found a 17.8% advantage for studying abroad on 4-year graduation rates and a 6.4% advantage for 6-year graduation rates. Controlling for prior GPA, prior credit-taking, and incoming SAT, a student who studies abroad has roughly a 10% greater chance of graduating in 4 years than a student who does not. Some advantages for African American students are roughly twice as great.

What follows are some concrete steps that need to be undertaken in order to determine whether studying abroad leads to higher graduation rates.

1. Secure buy-in and collaboration with institutional research/data warehousing at onset of the project.
 - a. It is crucial that institutional data managers understand the objectives of the learning outcomes assessment, and not merely provide data retrieval midway through the project.
 - b. Likewise it is important that the principal investigators understand the capabilities and limitations of the data managers. In the case of GLOSSARI, for example, it was not technically possible for the data warehouse to draw a stratified random sample for purposes of constructing the domestic-only comparison group. The random sampling therefore consumed months of unanticipated effort.
2. Decide who will be included and who will be excluded in calculating graduation rates. The most widely accepted convention for calculating graduation rate is the Integrated Postsecondary Education Data System Graduation Rate Survey (IPEDS/GRS).[‡] Its methodology considers only full-time students enrolled for the first time during fall semester. No doubt many of your students who have studied abroad will be excluded from the graduation rate analysis on the basis of the IPEDS/GRS methodology.
3. Determine how you will know who has studied abroad and who has never studied abroad.
 - a. Are study abroad courses notated in some specific way on students' records?
 - b. Or do you have a separate database of students who have studied abroad, in which case you will need to figure out how to merge this separate database so as to properly classify students with respect to studying abroad? (Making sure that

[†] Richard Sutton, PI; Don Rubin, Research Director; funding provided by the University System of Georgia and the US Department of Education Division of International Research Studies. Documentation is available at www.glossari.uga.edu

[‡] See <http://www.acenet.edu/>

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- study abroad students are excluded from the comparison domestic-only group is also important.)
- c. How will you deal with students who have studied abroad outside your institution or through third-party providers? Can those experiences be ascertained from your institutional records?
4. Obtain a copy of your institutional research/data warehouse data dictionary and carefully identify data fields that you will want to capture in your analysis.
 - a. Might you want to compare the impact of studying abroad on graduation rate among certain majors? (It is often asserted that studying abroad is disruptive for certain majors that require highly sequenced course-taking.) If so, will you request the student's major code at graduation, at the semester of study abroad, or both?
 - b. Are you interested in the interactive effect of financial aid and studying abroad on graduation? If so, determine whether you are able to obtain data fields like *unmet financial need* from FAFSA filers.
 - c. Do you have a commitment to understanding the impact of studying abroad on graduation for particular populations? If so, be sure to include data fields for such categories as race, ethnicity, home language, rural/urban high school, and first-in-family college student status.
 - d. If your institution produces large numbers of outbound transfer students, how can these be identified so that they are excluded from graduation rate statistics?
 - e. Consider the range of covariates for which you might want to control in studying your graduation rates.
 - i. Collect high school predictors of college success such as high school GPA and SAT scores
 - ii. Collect college indicators of achievement up to the point of the study abroad semester. For example, obtain GPA and credits earned during the semester prior to study abroad.
 5. After you draft a detailed request for data fields, discuss each field with the institutional researchers/data warehouse users on your team. You may discover that they consider some data fields less reliable than others. For example, some institutions may not report change of major in a timely fashion. The GLOSSARI project discovered that grade reporting for the semester in which students studied abroad was so lax that we never utilized data from that semester at all.
 6. Specify inclusion/exclusion factors for the education abroad sample.
 - a. Will you include all students who had an educational experience abroad (if they can be identified), or only those who studied abroad for credit? If the net is cast widely, you may discover quite a few unclear cases. For example, do students who participate on a school-building mission to Guatemala sponsored by the Baptist Student Center get included in the education abroad group? What about the anthropology student who spends a month in Guatemala collecting data for her senior thesis?

- b. Graduation rate calculations require that students have at least the possibility of graduating in four years. Therefore students who matriculated less than 4 years prior to your data “snapshot” need not be included.
7. Draw the education abroad sample and ascertain frequencies of students in relevant stratification categories.
 - a. At minimum determine how many education-abroad students fall into each class status (first-year, sophomore, etc) during each semester (fall, winter, summer) during each year of the study (2001, 2002, etc) at each institution.
 - b. If you know that you will want to stratify on other variables such as major or race, obtain frequencies for those categories as well.
8. Draw the domestic-only comparison group sample.
 - a. With certain outstanding exceptions, there are likely to be at least 5 times as many students who have never studied abroad as have. If the sampling frame of domestic-only students is too massive to be manageable, you can take a first swipe at cutting it down to size by some arbitrary criterion such as downloading files only for students whose student ID numbers end in the digit 4.
 - b. Filter the domestic-only sample by using study abroad student ID numbers as exclusion criteria.
 - c. Sample the domestic-only sampling frame in correspondence with the frequencies within each stratum of the education abroad sample. Thus, for example, if you found 20 sophomores studying abroad during the fall semester of 2002 at Moonpie University, sample 20 domestic-only Moonpie sophomores who were enrolled in the fall of 2002. In the likely case that the size of the stratum of domestic-only students greatly exceeds the corresponding group of education-abroad students, randomly select domestic-only students to fill the necessary number of slots. The resulting comparison group will be a stratified random sample that will yield credible graduation rate comparisons.
9. Ascertain the percentages of education abroad and of domestic-only students who have graduated 4, 5, or 6 years following their first semester of matriculation.
 - a. Results will enable you to compare the percentage of study abroad students who graduated, say, in 4 years with the percentage of true comparison group students who graduated within that same time frame. One can then make claims such as, “Studying abroad offers an 18% boost in the percentage of students who graduate within four years.”
 - b. These figures can be compared with the institution’s or system’s overall 4-, 5-, and 6-year graduation rates. Note that even the domestic-only comparison group will exceed the institution’s overall rates, since these students will have survived at least to the same point as the education-abroad students elected to go overseas.
 - c. Graduation rates can also be calculated for subpopulations of interest (e.g., racial minorities, STEM majors, or students admitted at-risk)
10. To complement the calculation of graduation rates as described in #9 above, use logistic regression to statistically control for precursor variables such as *high school GPA*

or for college achievement variables such as *GPA prior to the semester of study abroad* (assuming these covariates have been collected). For the logistic regressions, the dichotomous dependent variables will be *yes/no graduated in 4 years, yes/no graduated in 6 years*, etc. The selected precursor and achievement variables will serve as covariates. One can then make such claims as, "Even taking into account differences in high school preparation and prior college success, students who study abroad are 10% more likely to graduate in four years than are students who never study abroad."