

Quantitative Assessment Committee Review

For this Committee, a varied group of professors were assembled including professors from the psychology, history, business, and education schools on campus. Our stated directive, from the Associate Academic Vice-President for Assessment & Accreditation was as follows:

“The group is tasked to establish a way to measure quantitative reasoning at the associate- and bachelor-degree levels. This will mean finding an instrument or creating one, working with Kathy and myself in the stratification of the sample population and the gathering of the artifacts, piloting or norming the instrument within your group, and then conducting the evaluation of the artifacts. The analysis of the data will then take place which will lead into a report of the process and the findings. The report will also include the group’s recommendations.”

To begin our process, we explored a number of possible rubrics and decided to use the Quantitative Literacy Rubric from the Association of American Colleges & Universities, which can be found at <https://www.aacu.org/value/rubrics/quantitative-literacy>. This was chosen as it was widely cited and utilized, had a clear rubric, and contained, as we understood it, the needed framework that we felt we should follow.

Problems arose almost immediately, however, as it was difficult to see how the quantitative assessment which, as a university institutional learning outcome (ILO), was meant to show marked improvement in each major over time, could be implemented. For example, in the English major, if the goal was quantitative literacy improvement over time, could that major “outsource” that goal to the math department. Effectively, we determined, the General Electives could be the source for improvement in such quantitative outcomes. However, in consultation with our Assessment and Accreditation committees, it became clear that such “outsourcing” was not the most desirable outcome and that each major should have its own process in place to show improvement in quantitative reasoning.

Without dramatically changing the less quantitative focus of various majors on campus, our committee attempted to resolve the apparent logical conflict. On request, our committee was allowed to try to redefine the issue into one of being data driven and evidence based, where data could refer to both quantitative information, as well as texts, articles, etc. In the rubric, where “calculation” was a subsection, we had it coincide with description, broadening the kinds of information that could be brought to bear. This approach bore some fruit as shown in the norming phase where one committee member from psychology who was heavily statistical in background and the history professor’s scores were highly correlated (above 0.60). However, there was still the tension of how quantitative each major needed to be and how best to evaluate them in that light. This was shown in a fairly large number of needed third readings during the assessment phase of the project.

Our conclusion at this time is that the university institutional outcomes as found here: https://accreditation.byuh.edu/sites/accreditation.byuh.edu/files/ILO-11-19-2013_0.pdf may be better outcomes to apply campus-wide for our university. This is the result of the “Analysis” outcome including quantitative reasoning, as well as other kinds of logic and assessment, without having each major subsumed solely into a calculation heavy pedagogy. In discussions with some of the campus faculty, the Analysis ILO seems to be one which would be implementable campus-wide with measurable change possible across the diversity of majors at BYU-Hawaii.