ECB Department Quantitative Literacy Assessment Project Design
July 6, 2012

Outcome Being Assessed:

In 2012-13, the ECB department will assess the following outcome:

Upon completion of the major, students will demonstrate the ability to organize, analyze, and interpret quantitative information.

Assessment Question:

We want to know if ECB majors show evidence of quantitative literacy. We wish to know if students are able to organize, analyze, and interpret quantitative information.

Intended Use of the Assessment:

Quantitative literacy is one of the main goals of our department. Obtaining information on students' abilities will let us know the extent to which that goal is being fulfilled. It will also enable us to pinpoint specific areas requiring greater emphasis or clarity. If we find our students have made satisfactory progress on this outcome, we will not change how we teach for quantitative literacy. If student progress falls below our expectations, we will improve our teaching techniques accordingly.

Method of Collecting and Analyzing Evidence:

Each faculty member will adapt the **QL Assessment Instrument** below to a 200 or 300 level course that involves significant quantitative content.[1] The adaptation will be verified *ex ante* with at least one other faculty member to ensure consistency with the assessment objectives. Faculty will adjust references to specific data sources and concepts to the specific course being taught. However, the QL techniques being assessed will be consistent throughout. The QL assessment questions will be integrated to one or more home assignments in each course. The integration into regular class assignments incentivizes students to complete the assessment question earnestly. The assessments will not be timed. Students may work collectively but will submit individual answer sheets. They will also submit the output from all statistical software. Faculty administering the assessment will make copies of student answer sheets and will keep these aside for later analysis. The originals will be graded and returned to the student. Indeed, students need not be informed that their assignments will serve a secondary purpose of curricular assessment.

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[1] In 200 level courses, QL techniques are *developed* through clear, prescriptive instruction. In 300 level courses, there is less direct instruction of QL techniques. Instead, we expect student to *master* the techniques through more broadly-based applications.

The QL assessment will take place according to the following schedule:

Block	Course Number and Name	Instructor
2	ECB243 – Investments	Conrad
4	ECB225 – Money and Banking	Knoop
5	ECB320 – Women, Men, and Labor Seminar	Savitsky
7	ECB354 – Business Analytics	Hejeebu

Interpreting Evidence:

What strategy will we use to make meaning of the results? How will we ensure we use the information?
The method of analyzing the evidence will be determined as year three approaches.

Involvement:

Four of five tenure track members of the ECB department will participate in this project. Each participating faculty member will follow the method specified above.

ECB Department
2012-13 QL Assessment Instrument

Students will be given or be expected to collect an appropriate dataset to demonstrate their ability to describe, analyze, and interpret data. As we are not assessing the method of data collection, the questions below assume that a viable dataset is in hand.

I. **Describing data**

    a) Can students find central tendencies and variations in the data?

    b) Can they represent these central tendencies and variations in an appropriate quantitative format?

II. **Analyzing data**

    a) Can students formulate a statistical model that is informed by economic theory and that links the variable of interest to one or more explanatory variables?

    b) Can students estimate this model using appropriate statistical techniques?

III. **Interpreting data**

    a) Can students identify the statistical strengths and weaknesses of the model?

    b) Can students draw appropriate inferences can students from their estimated model?

    c) Can students identify weaknesses in the underlying model?