Annual Assessment Report 2015

The Economics and Business (EB) department mission statement, Program Learning Outcomes (PLO's), curricular map and multi-year action plan are posted on the EB department website.

Department: Economics and Business
Date: September 19, 2016
Department Chair: Rick Ifland

I. Program Learning Outcome (PLO) Assessment

Program Learning Outcome	Students employ and analyze complex economics and business processes and policies.
Who is in Charge	Edd Noell and Enrico Manlapig
Direct Assessment Methods	Comprehensive exam covering baseline and advanced microeconomic (Exam A) and macroeconomic concepts (Exam B). Previously, Paul Morgan performed a detailed item analysis regarding the reliability of the exam and specific exam questions. After analysis, 11 questions were altered to better reflect reliability and accuracy.
Indirect Assessment Methods	Embedded assessment utilizing exam questions and assignments in EB 11 Principles of Macroeconomics (Noell) and EB 12 Principles of Microeconomics (Manlapig, Asher)
Major Findings	The student average for both Exams A and B for the years 2012 and 2013 hit a plateau at 67. Disaggregation of results by professor indicates the need for Noell to revise 5 test items, Morgan to revise 3 test items, and Noell and Morgan jointly to revise 3 test items. All 11 items were revised for the 2014 examination. Eleven test items were revised for the 2014 version of the test. Items that were used on both the microeconomics and macroeconomics portions of the test were numbers 15, 48/50 (micro/macro), and 63/64. All three of these questions discriminated at 20% and their difficulty levels were 0.76, 0.64, and 0.94 and so they should all be judged as effective items. Again in 2014, 34 students took the macroeconomics version of the test. Three items, numbers 22, 31, and 38 were revised. Number 22 had a difficulty level of 32 percent and discriminated at 0.11 and so could still be improved. Number 31 had a reasonable difficulty level at 0.58 but did not discriminate and so it should be reviewed again. Test item number 38 had a difficulty of 0.62 and discriminated at 0.44 and so it should be included on future tests. Overall scores on the microeconomics version of the field exam yielded a mean of 64 percent, a median of 66.6 percent with a test reliability of 38.4 percent in a small sample of 16 students. The macroeconomic version of the test

	also had a mean of 64 percent, a median of 63.3 with a higher reliability of 64.2 percent in a larger section of 34 students. Mistaken filing and disposal of item analysis data disallowed an analysis of the microeconomics version of the test for 13 students.
Closing the Loop Activities	Reviewed and then either improved or replaced 11 items on 2014 economics field exam to be administered in Senior Seminar in Fall 2013 and Spring 2014 (to improve exam reliability) and pursue measures to raise student performance level in principles of economics courses. Mean scores are slightly higher.

Discussion

Noell and Morgan engaged in detailed item analysis to determine which particular concepts students need to improve their understanding and performance on the comprehensive economics exam. Beginning in 2014, Noell revised 5 test items, Morgan revised 3 test items, and Noell and Morgan jointly revised an additional 3 test items for the comprehensive economics exam that was administered in Fall 2013 and Spring 2014. Paul Morgan pursued measures to raise the performance level in principles of microeconomics and principles of macroeconomics in Spring 2014.

II. Follow-Ups

Program Learning Outcome	Students exhibit effective writing skills in economics and business documents.
Who is in Charge	David MacCulloch/Rick Ifland
Major Findings	In Spring 2014, for EB 180 MacCulloch developed benchmarks and a rubric for assessing student's writing performance and reported the results to the department. Since MacCulloch retired as an Adjunct Professor in Spring 2014, Ifland gathered the data as presented here and will perform any necessary follow-up.
Closing the Loop Activities	MacCulloch assessed EB student writing skills in EB 180 in Spring 2014. A report is provided in Appendix B that includes a detailed description of the writing performance criteria, details as to what is expected at benchmark points, a particular rubric employed, and presentation alongside interpretation of the results of student writing performance

Discussion

MacCulloch stopped teaching EB 180 in Spring 2014 so continued assessment will continue with another professor in a writing intensive course, either EB 180 or similar.

III. Other Assessment Projects

Project	Review Curricular Map, Multi-Year Action Plan, and Student Learning Outcomes from EB Website (as recommended by PRC response to 2012 report); Present assessment results for PLOS and Senior Student Satisfaction Survey to EB faculty
Who is in Charge	Rick Ifland
Major Findings	Curricular Map, Multi-Year Action Plan, and Student Learning Outcomes from EB Website have been revised and can be viewed on the website.
Action	We revised the Curricular Map and Multi-Year Action Plan on the EB website; We discussed PLO assessment reports with EB faculty along with Senior Student Satisfaction Survey results.

Discussion

Student Learning Outcomes are needed for specific courses but do not need to be included in the Curricular Map nor posted on the website. Since two full-time EB faculty members departing in 2012-13, the addition of Rick Ifland to the EB faculty beginning Fall of 2013, the addition of Enrico Manlapig beginning in Fall 2014, and the addition of Martin Asher beginning in the Spring of 2016, additional revisions of particular assessment items and responsibilities may need to be made in the Multi-year Action Plan. Some of these changes have been made and the adjustments are indicated in section IV. Additional changes will be made during the course of the year.

Assessment results for PLOS and senior student satisfaction survey are presented in EB department meetings and shared with EB faculty (full-time and part-time). Specific benchmarks for success in senior student satisfaction survey items will be developed in the 2016-2017 school year.

IV. Adjustments to the Multi-year Action Plan

Proposed adjustment	Rationale	Timing
Assessment of Core Knowledge Competence in Economics Assessment of Effective Written Communication (EB 180)	Aim to achieve 70% competence benchmark for comprehensive economics exam performance See reported benchmarks, rubric, and presentation and interpretation of results in Appendix B.	2013-14 through 2015-16 2013-14
Assessment of Effective Oral Communication (EB 105, 191) Research Competence in Economics and Business (EB 103, 135)	Follow-up on results previously reported with specific steps taken to improve EB student oral communication Move assessment of this PLO forward in light of newness of Enrico Manlapig to our program	2014-15 2015-16

V. Appendix

A. Table of Department Economics Field Exam Content and Discussion of Item Analysis

B. Writing Intensive benchmark and rubric

Appendix A

Table of Department of Economics Field Exam Content and Discussion

The economics field test that is administered in the Senior Seminar course. This exam represents an attempt to establish a baseline of understanding for the economics portion of the major. The content and style of the test was patterned after the Council for Economic Education's, TUCE (Test of Understanding in College Economics), a nationally normed test for Principles of Economics courses. Content on the TUCE covers the concepts of scarcity, opportunity cost, choice, supply and demand, utility, elasticity, price ceilings and floors, theory of the firm including revenues, costs, marginal analysis, market structures, wages, rents, interest, profits, income distribution, the microeconomic role of government including public goods, maintaining competition, externalities, taxation, income redistribution, public choice, comparative advantage, trade, and exchange rates. These are all topics that are part of the Principles of Economics sequence and are examined more deeply in the upper division courses. Content coverage on the department was similar to the TUCE with the additional feature of coverage of Econometrics and upper division Microeconomics and Macroeconomics. The department believes that the content distribution for the test was true to the goal of economic literacy for our EB majors. Percentages on the TUCE include those for both their Microeconomics and Macroeconomics tests.

The field test revealed that many of the foundational economic concepts are well understood by the end of the last semester of the senior year. Test scores were 90% or above on the benefits of trade, opportunity cost, markets and equilibrium price, economic incentive, statistical correlation, comparative advantage, basic public choice theory, measurement of net exports, prices and economic incentive, and property rights among others. Excluding two questions that were unreliable, scores ranged from 52% down to 12% on the concepts of external costs, the CPI, demand vs. quantity demanded, nominal GDP, cost calculation, monopolistic competition, calculation of the Keynesian multiplier, and functions of money. Over the breadth of the field test, we were reasonably satisfied with the results given that students did not do any refreshing on the concepts tested. However, we would like to see improvement in the overall performance and particularly on the lower scoring concepts.

On the more advanced portions of the test covering concepts from the Intermediate Microeconomics and Intermediate Macroeconomics courses, test averages were lower than on the overall test. For the Intermediate Microeconomics portion, form A, the average on 13 questions was 54%, and for form B on Intermediate Macroeconomics portion of 13 questions, the average was 46%. Among those questions, concepts for which scores were above 60% included the law of one price, constrained optimization, cost minimization, game theory, indifference curve analysis, the Coase theorem, the Solow growth model, and Monetarism and stable velocity. Items that scored below 50% and which were regarded as reliable covered concepts of consumer surplus, returns to scale, the basis for Keynesian versus Classical policy for unemployment, IS-LM and Keynesian expansionary policy, vertical aggregate supply an Monetarism, New Keynesians and price rigidity, and New Classicals and costless deflation. The Intermediate Macroeconomics questions did not include graphic cues and perhaps would be improved with more supplied graphics.

We are somewhat encouraged by the results from the field Test. In regards to test reliability, the department test proved to perform reasonably well. Sixteen students, who had taken the Intermediate Microeconomics course, took form A with its heavier emphasis on microeconomics. Form A had a test reliability of 80 percent, a mean of 63.4 percent, a top score of 90 percent, and a bottom score of 48 percent. Thirty-four students, who had taken the Intermediate Macroeconomics course, took form B with its heavier emphasis on macroeconomics. Form B had a test reliability of 82%, a mean of 62.9 percent, a median of 65%, a top score of 85 percent, and a bottom score of 27 percent. Students were not given any preparation prior to the test.

An item analysis of the test showed that most test items were within a reasonable difficulty range and discriminated between the better and worse performing students. Of the 58 test items, 10 should be reviewed for difficulty or clarity and two should clearly be replaced on future test versions. Items with averages above 90 percent and discrimination below 20 percent should be reviewed and perhaps replaced with items that discriminate more. Other items that were more difficult but did not discriminate above 20 percent should also be reviewed.

Eleven test items were revised for the 2014 version of the test. Items that were used on both the microeconomics and macroeconomics portions of the test were numbers 15, 48/50 (micro/macro), and 63/64. All three of these questions discriminated at 20% and their difficulty levels were 0.76, 0.64, and 0.94 and so they should all be judged as effective items.

Again in 2014, 34 students took the macroeconomics version of the test. Three items, numbers 22, 31, and 38 were revised. Number 22 had a difficulty level of 32 percent and discriminated at 0.11 and so could still be improved. Number 31 had a reasonable difficulty level at 0.58 but did not discriminate and so it should be reviewed again. Test item number 38 had a difficulty of 0.62 and discriminated at 0.44 and so it should be included on future tests.

Overall scores on the microeconomics version of the field exam yielded a mean of 64 percent, a median of 66.6 percent with a test reliability of 38.4 percent in a small sample of 16 students. The macroeconomic version of the test also had a mean of 64 percent, a median of 63.3 with a higher reliability of 64.2 percent in a larger section of 34 students. Mistaken filing and disposal of item analysis data disallowed an analysis of the microeconomics version of the test for 13 students.

Appendix B
Writing Intensive Student Learning Outcome

EB 180-1 Principles of Management Spring 2014
Final Draft May 18, 2014

1. Summarize the assessment methods used and data collected:
   a. EB 180-1 Principles of Management had 37 enrolled students.
   b. Submitted Assignments:
      i. One Personal Management Philosophy Paper: 8 pages per student – 37 submissions;
      ii. Group Case Study: approximately 15-20 pages per group (six group submissions), three individual progress memos of one to two pages each (37 students x 3 = 111 submissions), and individual student's written contribution to group case study –approximately 3 pages each (37 submissions); and
      iii. Weekly Chapter Executive Summaries: approximately 1 page per student (37 students x 15 Weekly Chapter Executive Summaries = 555 individual submissions).
   c. Total Written Samples:
      i. Group Submissions: 6 total.
      ii. Individual Student Submissions: 740 total.
2. Benchmarks Utilized
   a. The following benchmarks were communicated to students in the Class Syllabus and Assignment Criteria Documents and employed in grading of assignments:
      i. Syllabus: Class assignments include an emphasis on the development of the student's written communication skills. The evaluation and grading criteria are as follows:
         1. Clarity and style, *in addition* to content;
         2. Ability to construct a clear central message that includes purposeful and inviting ideas, insightful arguments and reasons to accept your arguments, relevant and substantive supporting material, and various audience centered-appeals;
         3. Organization of your message, providing appropriate creative introductions, compelling and strategic structure, smooth transitions, and an effective conclusion; and
         4. Communication style that engages your audience with discipline-appropriate language and artfully constructed sentences.

ii. Assignment Criteria Documents:
    1. Each Assignment Criteria Document provided grading criteria for the Weekly Chapter Executive Summaries, Management Case Study, and Personal Management Philosophy Paper.

b. Syllabus and Assignment Criteria Documents are included with this assessment document.

3. Describe where in the EB department's Assessment Archive the data are stored. Scanned pdf files are recommended.
   a. Class Syllabus and Assignment Criteria Documents attached.
   b. All assignments submitted on Google Docs to the instructor's email account.

4. Interpret the Results:
   a. Start of Semester:
      i. Approximately 4 to 5 students from the start of the semester demonstrated strong and effective writing skills, and consistently met the four writing criteria benchmarks specified in 2.a.i above.
      ii. The balance of the class were either unable to write in an organized fashion, unable to construct a clear central message that was supported with relevant material and discussion, or a student did in fact have a clear central message, but poor grammar, punctuation, or the use of conversational vernacular detracted from the effective communication of their message.
      iii. Students who excelled took the time to proof read their work rather than rely on spell check and grammar check, and prepared more than one draft before submission of their final work product.
      iv. Students who graded poorly submitted work that was not proof read, riddled with errors, lacked and coherent and clear message, and unorganized.
      v. Average grades: at the beginning of the semester, based on the work product submitted my impressions was that overall (a) student's did not proof read their work, (b) have not had proper instruction if how to write a paper, or (c) have not been held to any standard in the grading of past written work that took into the four criteria outlined in 2.a.i above. Top 10% of class earned a B+. Bottom 10% of the class earned on average a C-. Remaining 80% of the class fell in the B- to C range.
   b. Mid-Term:
      i. Noticeable improvement made by the time of mid-term grades.
      ii. The instructor noticed overall improvement on the quality of the writing submitted. This can be attributed to: (a) the students were aware of instructor expectations; (b) students understood the requirements communicated in the Assignment Criteria Documents; (c) students budgeted their time more efficiently; (d) students took the time to work on multiple drafts; and (e) proof-read their work.
      iii. Noticeable improvement in the ability to provide a clear central message, well organized writing with a clear and compelling introduction, supportive arguments, and strong conclusion.

iv. Areas of weakness that continued was a lack of proof-reading of their final draft, continued use of the passive voice, and incorrect use of punctuation – many issues that should not appear in the work of an upper division class.

v. As for grades at mid-term, 15% of the class earned an A- on their written work, 30% of the class earned a B on their written work, 55% of the class earned a B- on their written work.

c. End of Semester:

i. By the end of the semester, the majority of the students met the four writing criteria benchmarks listed in 2.a.i above.

ii. For those students who did not improve, they continued to demonstrate an inability to write in an organized fashion, were unable to construct a clear central message that was supported with relevant material and discussion, continued to use poor grammar, numerous basic punctuation errors, continued use of the passive voice, and use of conversational style and vernacular in their writing.

iii. As for their grades for their final paper (Personal Management Philosophy Paper), 0.5% received an A+ (2 students), 50% received an A grade, 15% received an A-, 20% received a B grade, 0.5% received a B-, and 14% received a C grade.

5. Provide evidence of *collectively* interpreting data that have been gathered:

a. All written submissions on Google Docs to instructor email account.

b. No grade sheets.

i. Based on class size, College requirements for a Writing Intensive Course, and lack of availability and time to locate and indoctrinate a viable teacher's aide to assist with grading, it was determined with collaboration of Ms. Skripsky and Ms. Mullen that the Instructor utilize the Google Docs Tool as a means to manage the volume of submissions.

ii. The Comments function of Google Docs tool allowed the instructor to provide relevant critique, highlight areas of strength, highlight areas that needed correction, and provide examples of how to improve the writing and meet the standards required in the assignment.

6. What have we learned about what our students are learning and how they are developing? What evidence is there that our curriculum design and teaching strategies result in desired student learning and development? How effective are the assessment methods that were used?

a. 37 students are too many for a writing intensive course.

b. Writing intensive courses should be taught by full-time, tenure-track professors and not an adjunct instructor with regular full-time employment commitments outside of Westmont College.

c. This course was taught by an adjunct instructor with no access/availability of a teacher's aide to assist with the grading since said instructor had no history with students to identify a candidate who could properly serve as a teacher's aid and efficiently and effectively grade said assignments. This comment is based on the number of students enrolled in EB 180-1 this past term. This may not be an issue if the course is limited to say 20 students.

d. Adjunct Instructor was not notified until November 2013 that the course was to be a Writing Intensive Course and thus required an assessment for accreditation.
e. Adjunct Instructor had less than two months to prepare course syllabus, locate suitable text book, design course and assignments, identify and meet with appropriate faculty and library staff to learn the requirements necessary for a course to qualify as Writing Intensive and meet college accreditation/assessment standards, and design the curriculum accordingly.
f. Adjunct Instructor reached out to Sarah Skripsky and Jana Mayfield Mullen to learn about the required Writing Intensive Criteria and determine how to best design a feasible structure, based on 37 students and the volume of writing required for a course to meet the College standards for a Writing Intensive Course.
g. It was determined students would submit their written work via Google Docs in the college intranet system. This would allow instructor to efficiently and effectively provide legible and valuable feedback as to areas the students need to focus and grades earned for the assignment.
h. It appears most students in EB 180-1 had not had a writing intensive course in the E+B Department prior to this past term.
i. For those students who have had courses in the department that contain a component of their grade based on submission of essays/research papers/case studies, their writing was not graded from the perspective of clean grammar, proper punctuation, spelling, proper sentence structure, use of proper tense, avoidance of "passive voice," not writing in a "conversational style of voice," avoidance of nonprofessional vernacular and slang, not using acronyms without a parenthetical that explains what the acronym stands for, use of truncated words, font consistency, consistent formatting of their papers, how to properly cite a source from their research.
j. Instead, the focus of the grading had been on the content, and reflection and synthesis of course material as spelled out in the assignment - *which is critical and important*. But we cannot ignore equal emphasis on style and the technical aspects of the submitted document.
k. This instructor found it difficult to read many of the written submissions, as inability to meet the benchmark criteria as outlined in 2.a.i above proved to be a great distraction that would take away from otherwise interesting and fascinating papers.

7. Close the Loop- What should our department plan to do or in response to what you have learned?
   a. Limit number of students in a writing intensive class. 20 maximum.
   b. General Education/Lower Division requirement of a basic research and writing course.
   c. Department Consistency as to Grading Criteria:

i. Each instructor has his or her own unique approach to teaching/communicating material, as well as interpreting and grading submitted work based on that particular course. *This needs to be honored, and not "commoditized."*

ii. However, on a department-wide basis there can be a rubric devised that covers the basics such as spelling, grammar, sentence structure, and organization of thought.