

Reflective Assessment and the Program Review Process

Laura Bracken Ed Miller

Lewis-Clark State College, Lewiston, ID.

Resources on Guidelines for Reflective Assessment

- Beyond Crossroads, Chapter 5, www.beyondcrossroads.com/doc/CH5.html
- CUPM Curriculum Guide, 2004, www.maa.org/CUPM/curr_guide.html
- Northwest Commission on Colleges and Universities, www.nwccu.org
- Idaho State Board of Education Strategic Plan and Policies
- Lewis-Clark State College Strategic Plan, Presidential Strategic Plan Guidance Items

Bottom Line for Accreditation: Standard 2.B.3. The institution provides evidence that its assessment activities lead to the improvement of teaching and learning.

- What evidence is there that the skills improved or declined as a result of the program?
- How are these judgments rendered?
- Does the improvement appear permanent or transitory?
- **How has the program been changed as a result of the assessment program?**

Elements of program review. Program self-study; Academic Dean report; External Reviewer report; Internal Reviewer report; Academic Dean summary; Provost response.

Self-Study: Narrative portion \leq 10 pages.

- How well is the program meeting the goals and objectives of the institution?
- Is the program in compliance with the accreditation guidelines of NWCCU?
- How well is the program meeting the goals and objectives published for the program?
- How effective and efficient is the program?
- How does the program compare with programs at similar institutions?

Required Documents.

- Unit mission statement and strategic plan.
- Annual program review summaries.
- Faculty/staff curriculum vitae.
- Student learning outcomes, means of assessing outcomes, and program changes based on assessment of outcomes.

Mathematics Component of General Education Goal.

- To understand mathematics and quantitative methods as logical constructs and employ this understanding to solve problems and manipulate associated abstract symbols.
- Courses which fulfill this requirement will introduce students to the axiomatic nature of mathematics, ensure a minimum level of algebraic competency, help students understand how mathematics both reflects and models the observable world, give students the ability to generalize these ideas and modify them to solve quantitative problems in a changing world.

"Core" Math at LCSC. Same textbook, no common finals, syllabi, or objectives, informal discussions about topics/pace. Course assessment is at discretion of instructor. Use of course assessment is at discretion of instructor. Gen. Ed Core Goals assessed by College BASE test.

Faculty do not currently receive results of College BASE test.

College Base Test: <http://arc.missouri.edu/index.php?p=/CB/CBhome.htm>

Development Math at LCSC. Same textbook, common objectives, common final exams with group grading, common mastery skill quizzes. Faculty meetings every six weeks.

Self Study Proposal

- With Division Chair and Accreditation pressure, lead faculty member received course (3 credits) release time.
- Lead Faculty sends e-mail with CUPM Sample Questions to faculty.
- Short meeting to discuss these and identify other questions.
- Proposal for Self Study sent to micromanaging dean. Finally approved.

Self Study Questions

Who is taking our courses?

- What are the intended majors of the students enrolled in our courses?
- When do students being taking mathematics?
- When do students complete the math portion of the Gen. Ed curriculum?

Are we using the right curriculum?

- Does every gen. ed. and service course have examinations or assignments *that affect a student's grade* requiring students to explain their reasoning, solve multi-step problems, generalize from examples, solve a problem two different ways,

read new material and use it in some way, and use a mathematical tool to solve a problem in another discipline?

- Does the syllabus of every gen. ed. course we offer include an application to at least one discipline outside mathematics that is less than 50 years old?
- Are there other niche courses that we could feasibly offer that combine the service and gen. ed. role for majors other than el. ed. and radiography?

Is our curriculum internally and externally consistent?

- Do students follow the prerequisite/successor pathways in a streamlined and timely fashion?
- Are successful students also successful in their next course?
- Are our prerequisites sound and effective?
- Do the answers to the previous two questions change with lapsed time or by semester?
- Do we make effective use of advising, placement tests and/or consultation with colleagues in other disciplines to ensure that students take appropriate introductory courses?
- Do the syllabi of sequential courses make sense together? Do the objectives flow logically?
- How does the content of developmental and gen. ed. courses compare to our sister institutions in Idaho and to our major "trade partners" in other states?
- Do we talk with the faculty from other disciplines our courses, new courses, applications, or team-teaching/guest lecturing?
- Can we see progress in our majors' abilities to reason, solve problems, think abstractly, read and write mathematics, and present their ideas orally as they move through our program? How do we gauge their progress?
- Are math courses a barrier to graduation?
- How do students perform in their other courses as compared to their math courses?

Self Study Dean/Provost Questions

- **5-yr overview of frequency of math course offerings** with 10th-day enrollment, directed studies, program requirements
- **Budget** for last 5 years of adjunct funding by category
- How are **developmental math programs** best administered?

Self Study: Data Collection

- 5 years of enrolled students in math classes and their grades.
- Program information of student (major/minor)

- Credits completed when taking course
- Grades for all classes enrolled in when taking math course.

Recommendations: Assessment

A1: Continue College BASE test to assess Gen Ed core curriculum.

A2: Implement common assessment in developmental, gen ed and key service courses.

Recommendations: Curriculum

C1: Prototype syllabi for each course including catalog descriptions, goals and objectives, mandatory or suggested grading schema, current or recent textbooks with required coverage

C2: Review of catalog descriptions.

C3: Add courses in Euclidean geometry (2xx) and elementary linear algebra/matrix theory (2xx) to support teacher education and engineering.

C4: Explore feasibility of developing and offering gen ed. courses for targeted populations.

C5: Review list of elective mathematics courses.

Recommendations: Curriculum

C6: Change requirements in the math major. Require a second semester of abstract algebra or real analysis. Delete language requirement.

C7, C8: Change requirements in the math minor and in the math minor for elementary teaching.

C9: Delete Applied Calculus course.

Recommendations: Resources

R1: Create a new tenure track faculty line to take a leadership role in the preparation of prospective elementary and secondary teachers.

Where We Are Now. Program review to division chair; Finding internal/external reviewers; Faculty assigned to write common finals; E-mail discussion of technology; Piloting of common finals and group grading in December; Curriculum changes sent to curriculum committee.

Next Steps

- Reflection on external and internal reviewer recommendations.
- Write course objectives.
- Develop new gen. ed. core class targeted at low success populations.
- Develop lab component for el. ed. course
- Align final exams and objectives.

- Item analysis of final exams/workload.
- Continue informal discussions with other faculty in partner disciplines, especially engineering and computer science.
- Continue to build case for new faculty despite probable budget cuts and hiring freeze.
- Think about assessing performance in mathematics in partner disciplines.
- Determine how we will react to and use further assessment information at course and program level, including College BASE test. This is a critical step to be completed before accreditors arrive on campus in October.

Faculty Reaction

- Frustration with workload.
- Too soon to tell – group grading of finals is going to be a shock for some.

Questions?

bracken@lcsc.edu edmillier@lcsc.edu

Documents:

www.lcsc.edu/edmillier