Modular Approach to Math and English Courses
What is it and what are the benefits?

A discussion of what it means to modularize content and facilitate self-paced learning.

Moderators

Karen Wyrick – Math, Cleveland State, Tennessee

Tennessee Board of Regents mandated redesign in Spring 2008 for their math courses. Department piloted the redesign in order to have input into the final model. There was some reluctance to switch but it wasn’t an option so we created a series of basic math videos to replace traditional lectures.

11 courses were taught with the same redesigned model:
- Hour-long course in a computer classroom with the same types of activities as a traditional math lab: videos, exercises, tests, quizzes, etc. Points were assigned during class, up to 10 a day. Students wanted those points.
- Coursework redesigned into 10-12 mini-modules, depending on specific math class. One module = approximately one week of material
- Mastering of material, attendance, and participation all contributed to final grade.
- Students worked at their own pace to achieve success with each skill before moving forward.

Betty Frost – Math, Jackson State Community College, Tennessee

Redesigned three developmental math courses into 12 modules. Do not have an overall module, but some of the modules act as capstones of previous modules. There isn’t a midterm or final exam in the traditional definition.

- Generic work textbook = 5% credit
- Offers participation points – students must stay in lab for full period to be eligible for daily point.
- Use Accutracker to track attendance and give credit (can be expensive for the school)
- 50% success rate with modules; 25% of students would succeed regardless of course delivery method.

Xiaoping Wang – Developmental Reading, Northeast State, Tennessee

Doesn’t modularize content but asks students to work on individual modules based on a pre-test. Students must complete one module per week and must take study skills modules at the beginning of the semester. Students work at their own pace so some test out by mid-semester and some don’t finish all of the modules. Currently, the redesign is being redesigned so students can start up next semester where they left off at the end of this course.
Q & A
When possible, the panel member who answered the question is indicated by their initials.

The Modular Structure
Q: What are the challenges as far as modular structure and student response?
A (BF): Students weren’t uncomfortable, they liked the “pieces.”

Q: What if a student doesn’t want a modular course? How do you accommodate them?
A (KW): They don’t have an option. The state of Tennessee mandated this format and we have had great success with the approach.

Q: How do you manage students who have no completed all modules and then go to another professor in the next term?
A: We just keep a record
A (KW): We ask students to print the grade book.

Q: How does it affect faculty workload if students do not complete all modules?
A: Students enroll in a shell course, not a particular module so they can easily pick up where they left off if needed. Their course isn’t tied to one particular instructor.

Q: Is it boring for students to sit in front of the computer without interaction?
A (BF): Students are not just sitting in front of the computer. Books are out and students are working problems with pencil and paper, doing the math. Students, especially older students, love this class. One student said, “This is my therapy.”
A (KW): Our students some to class ready. They have watched the videos, taken notes, and have their cup up on top of the computer indicated they have questions. They’re more active than in a lecture class, I have to kick them out of the lab.
A (XW): We have a lab and live meetings once a week. Our students also have various activities they must do in the lab.

Q: What do you do when the students hit the wall with a module?
A (BF): Students work in MyMathLab first then come to in-lab instructors and tutors with questions. This averts student problems.

Q: What emphasis is put on students learning to write mathematics?
A (BF): We ask to see their work in our work textbook. We don’t require them to do all their homework on paper.
A (KW): We do not check pencil and paper work at all. We feel if they answer in MyMathLab they’ve already done the work.

Q: What’s the best way to teach using real-life applications?
A: Teach the value of the applications along with critical thinking skills which are needed for credit courses.

Testing/Assessment
Q: What types of assessments are given in modular approach? All online or pencil and paper?
A (BF): When our students take a test we use a test template. Students show their work on paper so if the computer marks something wrong erroneously we can see what they have on their paper and adjust the grade if need be.

Q: Do students even take exams over all the material?
A (KW): At Cleveland State we do a mid-term and final exam and chapter tests. Mid-terms and finals are fixed and students must pass both.

Q: Do you have exit exams? Are you having students take mid-terms/finals online or with pencil/paper? What about academic integrity?
A: No, we don’t have exit exams. We do proctored tests and hide the assessments.
A (XW): We proctor pre-diagnostic and final exams because their entire plan depends exclusively on their diagnostic.
A (KW): All tests/quizzes are password protected.
A (BF): Online students must come to campus and take classes.

Q: Why do you give an F for non-completion?
A: We made the decision that this would push students harder to complete or take up again where they left off next semester.
**Student Success**

**Q:** What is the success rate of students who move on to college credit courses or following cases? Did you collect baseline data to compare?

**A (BF):** We have got some data, but many students do not automatically go into the next class. Or, they go into special programs like Allied Health so we are tracking if they are accepted into these programs.

**A (KW):** Reports showed a strong indication that redesign course students performed better. We tracked students who went from redesign course to non-redesign courses. Those students who came from a redesign outperformed those who did not.

**A (XW):** We have three years of data and we tracked students into comp and history. Redesigned students were 2-3% more successful than traditional reading students.

**MyMathLab-specific Questions**

**Q:** Is there anything built in MyMathLab so students can review past skills or generate previous exercise to easily study for a midterm or final?

**A:** You can customize and choose review questions.

**Q:** How long does a MyMathLab student access code last?

**A:** One year, but some instructors said they negotiated two-year access.

**Q:** Did you look at systems other than MyMathLab?

**A:** Several faculty tested other systems. We all decided MyMathLab was the best system for us.

**Cost Savings**

**Q:** How many teacher jobs have you saved or lost?

**A:** None. Our enrollments are increasing.

**A (BF):** At Jackson State we had three professors retire and the school opted not to rehire, but nobody lost their job because of the redesign.

**A (XW):** We have two full-time reading faculty, reading instructor assistants, and fewer adjuncts but our adjuncts earn more money.

**Q:** If you are not replacing faculty where do you reap cost savings?

**A:** Our teaching load is up. We teach 170-220 students so more students per instructor.