University of Hawaii
Maui College

Math Discipline Meeting
April 2, 2011
Honolulu CC
From Then To Now...Our Developmental Math Redesign

• 1 computer classroom → 2 computer classrooms + a math computer lab

• 4 levels of Dev. Math → 2 levels

• 2 years to get through Dev. Math → 1 year to get through
  » + extra if needed!
How Does It Work?

• All homework assignments, all quizzes, and all exams are done on the computer in a program called MyMathLab

• Students must attend their class which meets once per week for 1hr. 15min.

• Students must spend at least one hour/week in the Math Lab

• Course Calendar to follow to stay on pace

• Only deadline is the last day of the semester
How Does It Work?

• Each HW assignment must be passed with at least 90%
• Quizzes, tests must be passed with at least 70% and are password protected so are proctored!
• Videos are pre-requisites for homework
  – Students MUST WATCH videos BEFORE they gain access to homework questions
• Unlimited opportunities to achieve mastery
• We give no incompletes
• Student Organizer - Due before the exam
• 24 hr/day ability to communicate with
Obstacles We’ve Encountered

• 15-20% of students are not participating
• Some do not come to class or lab (We take attendance.)
• Some do not sign up for My Math Lab access to do the work immediately
• Many do not put in time (We see the amount of time they are working)
• Students do not respond (Or even read??) the many e-mails that instructors send.
• Students blame financial aid for late access to My Math Lab (we are working on a solution for this)
Our Head Start Math Class

- MATH82 class for students who finish MATH18 before the end of the semester.
  - They can begin working on MATH82 coursework without registering/paying for the class or a new book.
  - Their work will be imported next semester!
Changes We Are Actively Discussing

• Increasing the homework minimum percentage to 90%
• Pre-requisite reading/computer literacy level
• MyLabsPlus
Results and Impact on Student Success Data
Historical Completion
MATH 1 and 22 vs. MATH18 and
MATH 23 and 25 vs. MATH82

• Each course took 1 semester, so sequence took at least 2 semesters

• The % of students completing the redesign course (18/82) in one semester is as good or better than the % completing comparable courses (1&22 or 23&25) in 2 or more semesters.
What Lessons Have We Learned and What Advice Would We Give?

• Be on top of students
• Constant communication with students and each other
• Keep a list of things to improve as they pop up
• YOU NEED A STRONG TEAM!
  – team decisions
  – listen to others’ input
  – share ideas
What Lessons Have We Learned and What Advice Would We Give?

- Always be open to change for the good
- We’ve seen a vast improvement from last semester (our first try with the redesign) to this semester in:
  - apparent student success
  - clarity of day 1 directions, policies, & procedures aids in getting off to a smooth start
  - Word of Mouth among students goes a long way
What Lessons Have We Learned and What Advice Would We Give?

• Think hard about what book to use as you will stick with it for years.
  – Same book for all developmental levels to cut cost for students
• Must have a STRONG syllabus agreement
• Send an email about 1 week prior to the first day of classes including:
Beginning of Semester Email

• Student must attend day 1
• must have textbook and access code day 1
• syllabus and syllabus agreement
• course calendar (a pacing guide)
• post all of the above in Laulima
Added Benefits

• Students become self-motivated learners
• Students take responsibility for own success
• Students realize the negative effects of procrastination and challenge themselves to stay on pace
• Many students discovered that they can learn math when they never thought they could
How Does MyMathLab Work?

• Unlimited opportunities to gain mastery of each topic
• 45+ hours/wk. access to the UHMC Math Computer Lab!
• Not only can students ask their instructors questions in class, they can also access help in a variety of ways when from home!
• What are those ways? (Click the links below)
  – Help Me Solve This - Animations
  – Videos - Textbook
  – Student Organizer - Ask My Instructor
The Math Lab - Kupa’a 203

• There will always be AT LEAST 2 math instructors in the lab, ready to help you, at all times!

• 48 computers

• Open more than 45 hours per week! (M-Th from 9:00-7:30, F from 9-1:30)

• Air Conditioned and quiet
Help Me Solve This

Solve \( W = 2rg^4 - 3rz \) for \( z \).

(Use integers or fractions for any numbers in the expression)

Solving Equations for a Specified Variable

Step 1: Clear the equation of fractions by multiplying each side of the equation by the least common denominator.

Step 2: Use the distributive property to remove grouping symbols such as parentheses.

Step 3: Combine like terms on each side of the equation.

Step 4: Use the addition property of equality to rewrite the equation as an equivalent equation with terms containing the specified variable on one
Solve \( W = 2rg^4 - 3rz \) for \( z \).

\[
\begin{align*}
z &= \quad \\
(\text{Use integers or fractions for any numbers in the expression})
\end{align*}
\]
Animations

Example
Solve each formula for the specified variable.
a.) \( V = \frac{1}{3} \ ah \) for \( h \).   
b.) \( A=P + PRT \) for \( R \).

Approach
To solve an equation or formula for a specified variable, use the same 5-step process for solving a linear equation.
Solve \( W = 2rg^4 - 3rz \) for \( z \).

\( z = \) (Use integers or fractions for any numbers in the expression)
Student Organizer

• The Student Organizer which came with the textbook has:
  – Examples
  – “You Try”
  – Chapter study guides

• This Student Organizer counts toward students’ grades...what a great tool for success!
Solve $W = 2rg^4 - 3rz$ for $z$.

$z =$

(Use integers or fractions for any numbers in the expression)

**Ask My Instructor**

To: instructor@hawaii.edu

From:

Section 9.4, Question: 9.4.51

Solve problems involving relationships among unknown quantities.
Enter a question or comment to send. (A link to the question will be included with your message.)