NEW LIFE PROJECT: THE COURSES

Workshop at AMATYC conference November 9, 2012 session W08

Jack Rotman, and DMC team (DMC ⇔ Developmental Mathematics Committee)

OUTLINE OF WORKSHOP

- Introductions (who we are)
- Overview of New Life Model
- Mathematical Literacy for College Students (MLCS): Purposes; List of learning outcomes; Sample Lessons
- Algebraic Literacy (AL): Purposes; List of learning outcomes; Sample lesson
 Wrap-up

INTRODUCTIONS

- Jack Rotman, New Life Project Leader
- "New Life" is a Subcommittee of the DMC
- Subcommittee members helping today:
 Julie Phelps* Janet Teeguarden*
 Kathy Almy* Robert Cantin
 Brian Mercer
 - * indicates part of original design team *
- Friends helping today
 Dayna Ford Billye Cheek (from Grayson County College, TX)

OVERVIEW OF NEW LIFE MODEL

- Grounded in four legacies: (1) both AMATYC Crossroads (2) College Algebra reform (MAA); (3) Partner discipline needs (MAA); (4) Numeracy & QL movements
- Focused on needs of community college students
- Important mathematics for all students
- Fewer math courses for almost all students

OVERVIEW OF NEW LIFE MODEL: VISUAL

New Vision of Mathematics Pathways: Fewer non-credit math courses for most students

from the New Life Project College Algebra STEM: Calculus-Algebraic and Pre-Calculus based courses Literacy Students can place (AL) directly into STEM: Non-Reform College Algebraic Literacy Bridge to Some Calculus-based Algebra (gen ed) courses **College Mathematics** Math for Elementary **Education Teachers** Liberal Arts and Mathematical Literacy Finite Mathematics Numerical for College Students Sense (few (MLCS) start here) Quantitative Reasoning College-level Intro Statistics Business Math & Occupational Math Basic Science and New Life Project, AMATYC Developmental Mathematics Committee Technology Courses [Does not reliect official AWATYC positions or actions]

Updated October 2012

MORE THAN NEW CONTENT

- This workshop will focus on the content of MLCS and AL
- The New Life model calls for diverse and deliberate methods of teaching ...
- and the model calls for us to build student success capabilities concurrently ...
- along with building the profession (networking, validating, researching, etc)

COURSE OUTCOMES

- Documents from New Life work teams
- Each course has 4 goal areas connected to student needs
- Course structure is not intended to be based on the 4 goal areas
- Each course has more outcomes than would normally fit in a class: local adaptations are needed
- Publishers are involved with book projects

MLCS: PURPOSES

- Alternative to Beginning Algebra
 Very limited prerequisites to MLCS
 Focus on general education
- Prepares students for gen ed math courses such as quantitative reasoning, intro statistics, and liberal arts math; and ...
- Prepares students for Algebraic Literacy (2nd course) or intermediate algebra
- << Get MLCS goals & outcomes document>>

SMALL GROUP ACTIVITY 1 (12 MINUTES)

- Select one goal (such as Functions)
- Look at outcome statements in detail for 5 minutes (individually or group)
- Identify as a group how these outcomes differ in general ways from your beginning algebra course
- List two questions your group has about the general intent of the outcomes in this goal

REPORTING OUT: MLCS OUTCOMES

• How do the MLCS outcomes differ from beginning algebra?

• Questions on general intent?

SMALL GROUP ACTIVITY 2 (12 MINUTES)

- Sample of MLCS curriculum Math Lit
- See lesson 2.12
 - 3 copies at each table; also available online at
- http://dm-live.wikispaces.com/workshop2012
- Read through the lessons 5 minutes
- Discuss how this differs from traditional class

REPORTING OUT: MATH LIT SAMPLES

•How do the Math Lit lessons differ from traditional algebra course?

• Questions which arose in conversation?

SMALL GROUP ACTIVITY 3 (12 MINUTES)

- Sample of MLCS curriculum Quantway
- See lesson 4.1.3
 - 3 copies at each table; also available online at
- http://dm-live.wikispaces.com/workshop2012
- Read through the lesson 5 minutes
- Discuss how this differs from traditional class

REPORTING OUT: QUANTWAY SAMPLE

•How does the Quantway lesson differ from traditional algebra course?

•Questions which arose in conversation?

AL: PURPOSES

- Alternative to Intermediate Algebra
- Prerequisite: from MLCS or beginning algebra
- Blend of general education and STEM
 Prepares students for STEM-type math courses and general science; and ...
 Bridge to pre-calculus courses
- << Get AL goals & outcomes document>>

SMALL GROUP ACTIVITY 4 (12 MINUTES)

- Select one goal (such as Functions)
- Look at outcome statements in detail for 5 minutes (individually or group)
- Identify as a group how these outcomes differ in general ways from your intermediate algebra course
- List two questions your group has about the general intent of the outcomes in this goal

REPORTING OUT: AL OUTCOMES

Output How do the AL outcomes differ from intermediate algebra?

• Questions on general intent?

SMALL GROUP ACTIVITY 5 (12 MINUTES)

- Sample of AL curriculum draft document
- •See lesson 4.x
 - 3 copies at each table; also available online at
- http://dm-live.wikispaces.com/workshop2012
- Read through the lessons 5 minutes
- Discuss how this differs from traditional class

REPORTING OUT: AL SAMPLE (DRAFT)

•How does the AL lesson differ from traditional algebra course?

Other questions that arose?

WRAPPING UP

- Talk with one of us about doing New Life at your college
- Join the online community
 (<u>http://dm-live.wikispaces.com</u>)
- Network with other faculty and colleges in your state and region
 Email Jack Rotman at

rotmanj@lcc.edu