MATH-ESE 4 ALL!

Promoting Equity and Excellence in Mathematics

OKLAHOMA STATE REGENTS FOR HIGHER EDUCATION
IMPROVING TEACHER QUALITY PROGRAM
2009 NCLB GRANT
Oklahoma Panhandle State University
Goodwell, OK

May 26-30 and June 6, 2009
with follow-up dates of November 7 and November 14, 2009

INTRODUCTIONS
- Shawna Lyle
- Jana Peterson
- Jerry Mihelic
- Elaina Stewart
- Pauline Hodges
- Nancy Roberts
- Dave O’Sullivan
- Maggie Cline

BACKGROUND

The National Council of Teachers of Mathematics
Principles and Standards for School Mathematics
asserts that
“All students regardless of their personal characteristics, backgrounds, or physical challenges, must have opportunities to study, and support to learn, mathematics.”

BACKGROUND

To achieve equity in mathematics education, traditionally underserved students (i.e., students of color, students who live in poverty, females, students who are not native speakers of English, students with disabilities) in preschool through college must have access to a coherent, challenging curriculum that is taught by highly qualified, effective mathematics teachers.

BACKGROUND

**As agents of change, teachers must challenge the pervasive societal belief that only some students are capable of learning mathematics.**

Teachers, school leaders, and teacher educators must hold high expectations for all students.

BACKGROUND

**Simply put,**

“All means ALL.”
FOCUS OF THIS WORKSHOP

- Math:
  - Knowledge
  - Equity
  - Vocabulary
  - Reading Comprehension
  - Differentiating Instruction via Learning Centers
  - Technology
  - Assessment

OBJECTIVES

1. Participants in the workshop will develop higher-level knowledge of math content.
2. Participants in the workshop will identify troublesome mathematics vocabulary as it applies to mathematical concepts, and develop strategies to help all students assimilate new vocabulary.

OBJECTIVES

3. Participants will develop strategies for teaching reading comprehension of math problems as they relate to equity issues.
4. Participants will develop strategies for providing equity in mathematics instruction for all students.
5. Participants will create assessment instruments to measure the increase of student mathematical knowledge.

OBJECTIVES

6. Participants will analyze student achievement data and increase their reflective practices to improve instructional strategies that address equity issues.
7. Participants will develop presentations and learning centers using technology to communicate mathematical concepts in their classrooms that they will share with peers.

OBJECTIVES

8. Students in the participants’ LEA schools will show improvement in their ability to comprehend mathematical concepts appropriate to their grade level as measured by a teacher made pre-post test
9. Professional development strategies, specific workshop activities, and participant findings will be shared with other Oklahoma school districts.

BENEFITS OF THE WORKSHOP

- Lesson plans aligned to P.A.S.S.
- Creation of learning centers to help ALL students learn
- Advancement of the use of technology in teaching mathematics
- Increased ability to analyze students’ achievement data.
BENEFITS OF THE WORKSHOP
- Laptop computer
- Document camera
- Manipulatives
- Networking
- Stipends!

NECESSARY INFORMATION & REQUIREMENTS
- Lunch
- Breaks
- Bathrooms
- Copies
- Printing

NECESSARY INFORMATION & REQUIREMENTS
- Attendance
- Daily Reflection
- Lesson Plan
- Learning Centers
- Pre/Post Tests
- TWS report
- Presentations

SCHEDULE
- May 26th-30th and June 6th
- Follow up dates: Nov. 7th and Nov. 14th
- May 26-29 meetings—9:00AM-5:00PM
- May 30 and June 6 meetings—9:00AM-4:00PM
- All sessions will be held on OPSU Campus
- Saturday, May 30th meeting will start in the OPSU Library

DETAILED SCHEDULE
- Today—Tuesday, May 26th
- Orientation
- Concept Map Pre-Test
- Math-ESE 4 ALL Pre-Test
- Lunch
- Orientation of Laptop and Document Camera
- Dyslexia / Dyscalculia
- Daily Evaluation and Journaling

“Books

Yes, we have Chicken Soup for the Math Teacher’s Soul. The price is $475 ÷ 23 x .018− Y + 4X ÷ $73.99999 + 2.”
DETAILED SCHEDULE

- **Wednesday—May 27th**
  - Dictionaries & Orientation to other online math information
  - Reading Vocabulary and Comprehension
  - Lunch
  - FAT City DVD and Discussion
  - Education & Math—Adapting mathematics instruction for all learners
  - Daily Evaluation and Journaling

DETAILED SCHEDULE

- **Thursday, May 28th**
  - ESL DVDs (Raising the Literacy Achievement of ESL/ELL students) and Discussion – HMH 127
  - Lunch
  - 1:00-3:00pm—Fractions!
    - (K-6 in HMH 108 and 7-12 in HMH 109)
  - 3:00-4:30pm—SmartBoard Training in HMH 127 and Virtual Manipulatives in HMH 119 (K-6 will start in HMH 119, 7-12 will start in HMH 127) (will swap @ 3:45pm)
  - 4:30pm—Daily Evaluation and Journaling in HMH 127

DETAILED SCHEDULE

- **Friday, May 29th Make it and Take it-Fractions!**
  - **K-3 Teachers:**
    - 9:00-10:30—HMH 119—Dave O’Sullivan—computers, websites, virtual manipulatives, document cameras
    - 10:30-Noon—HMH 108—Nancy Roberts—SmartBoards
  - Lunch
    - 1:00-2:30—HMH 109—Jana Peterson—hands-on manipulatives, fraction bars, foldables, dice, games, parental involvement
    - 2:30-3:30—HMH 127—Shawna Lyle—activities and games, applications, literature, dice, parental involvement
  - 3:30-4:30—Post Test—HMH 127
  - 4:30-5:00—Evaluation and Journaling

DETAILED SCHEDULE

- **Friday, May 29th Make it and Take it-Fractions!**
  - **4-8 Teachers:**
    - 9:00-10:30—HMH 108—Nancy Roberts—SmartBoards
    - 10:30-Noon—HMH 109—Jana Peterson—hands-on manipulatives, fraction bars, foldables, dice, games, parental involvement
  - Lunch
    - 1:00-2:30—HMH 127—Shawna Lyle—activities and games, applications, literature, dice, parental involvement
    - 2:30-3:30—HMH 119—Dave O’Sullivan—computers, websites, virtual manipulatives, document cameras
  - 3:30-4:30—Post Test—HMH 127
  - 4:30-5:00—Evaluation and Journaling
DETAILED SCHEDULE

Saturday, May 30th Make it and Take it—Participant’s Math Choice

K-3 Teachers:
- 9:00-10:00—OPSU Library Visit
- 10:00-11:00—HMH 119—Dave O’Sullivan—computers, websites, virtual manipulatives, document cameras
- 11:00-Noon HMH 108—Nancy Roberts—SmartBoards
Lunch
- 1:00-2:30—HMH 109—Jana Peterson—hands-on manipulatives, fraction bars, foldables, dice, games, parental involvement
- 2:30-3:30—HMH 127—Shawna Lyle—activities and games, applications, literature, dice, parental involvement
- 3:30-4:00—Evaluation and Journaling—HMH 127

DETAILED SCHEDULE

Saturday, May 30th Make it and Take it—Participant’s Math Choice

4-8 Teachers:
- 9:00-10:00—OPSU Library Visit
- 10:00-11:00—HMH 108—Nancy Roberts—SmartBoards
- 11:00-Noon HMH 109—Jana Peterson—hands-on manipulatives, fraction bars, foldables, dice, games, parental involvement
Lunch
- 1:00-2:30—HMH 127—Shawna Lyle—activities and games, applications, literature, dice, parental involvement
- 2:30-3:30—HMH 119—Dave O’Sullivan—computers, websites, virtual manipulatives, document cameras
- 3:30-4:00—Evaluation and Journaling—HMH 127

DETAILED SCHEDULE

Saturday, May 30th Make it and Take it—Participant’s Math Choice

9-12 Teachers:
- 9:00-10:00—OPSU Library Visit
- 10:00-11:00—HMH 109—Jana Peterson—hands-on manipulatives, fraction bars, foldables, dice, games, parental involvement
- 11:00-Noon HMH 127—Shawna Lyle—activities and games, applications, literature, dice, parental involvement
Lunch
- 1:00-2:30—HMH 119—Dave O’Sullivan—computers, websites, virtual manipulatives, document cameras
- 2:30-3:30—HMH 108—Nancy Roberts—SmartBoards
- 3:30-4:00—Evaluation and Journaling—HMH 127

DETAILED SCHEDULE

Saturday, June 6th

Everyone—HMH 127
- 9:00-Noon—Participants’ presentation of their proposed math lesson including learning centers, pre/post test, etc.
LUNCH
- 1:00-3:30—Participants’ presentation of their proposed math lesson including learning centers, pre/post test, etc. (continued)
- 3:30-4:00—Evaluation and Journaling

FOLLOW-UP DATES

November 7th and November 14th—OPSU Ballroom
- Presentation of Lesson Plan, learning centers, pre/post test, data, and TWS material for “non-fractions” lesson
- All materials must be submitted one week prior to date of presentation
  - Including Lesson Plan (following prescribed format), pictures of learning centers in action, pre/post tests, pre/post test scores (on excel form), TWS data (submitted on-line to OTCA)
CONTACT INFORMATION

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