



ONLINE



**TEACHERS
DEVELOPMENT GROUP**

A non-profit organization
dedicated to improving
all students' mathematical
understanding and achievement
through meaningful, effective
professional development

Proportional Reasoning

ABOUT THIS ONLINE WORKSHOP

This workshop provides an opportunity for middle grades educators to learn about different components and levels of proportional reasoning. Participants will complete classroom tasks that illustrate ways to help their students develop stronger conceptual understanding about the components of proportional reasoning, explore video and written examples of student work, and will conduct a student interview in order to reflect on how students approach proportional reasoning and to learn how to identify evidence of proportional reasoning among students. This course will enable participants to:

- Understand and identify different components of and levels of proportional reasoning;
- Broaden their repertoire of classroom tasks to use to develop students' conceptual understanding of proportionality;
- Develop skills and tools for analyzing students' thinking about proportionality;

For the final project, participants will create a lesson that targets a component of proportional reasoning and that incorporates questioning techniques learned in the course.

PARTICIPANTS

Middle grades teachers of mathematics, math coaches, curriculum and professional development specialists, special educators, and instructional assistants. Participation by school/district teams is encouraged. To complement the online work, teams may wish to meet face-to-face to explore course math tasks and/or readings and assignments.

SITE

Online

INSTRUCTORS

MARIE FRANZOSA AND DIANNE HART both teach mathematics at Oregon State University, and have a special interest in mathematics for elementary teachers and the development of online professional community. Both were faculty members for the highly successful Oregon Mathematics Leadership Institute, a 5-year National Science Foundation project to deepen K-12 teachers' knowledge of mathematics and school leadership.

DATES

January 13 - March 2, 2010

OPTIONAL UNIVERSITY CREDIT

Mth 810, Portland State University, 3 quarter-hours graduate credit. Pay \$165 for optional PSU credit at first institute session.

QUESTIONS

Contact Julie Fredericks
Email, julie.fredericks@teachersdg.org
Local Phone, 503-650-1914
Toll-free, 877-650-1914

COST AND REGISTRATION

\$300 per person if registration received on or before December 30, 2009.

\$350 per person for registrations received after December 30, 2009.

Register online, www.teachersdg.org, prior to January 13, 2010.

Cancellations: If you must cancel, a substitute is welcomed. Otherwise, \$50 is nonrefundable; all additional payments are fully refundable prior to the workshop start date, non refundable thereafter.