

## **Cognitively Guided Instruction**

Number, Operations and Algebra in Grades K-5



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







#### **About This Session**

Cognitively Guided Instruction (CGI) is a teacher professional development program based on over 20 years of research by university professors and elementary school teachers from across the country. During this 5-day Symposium Session, participants will explore the CGI framework for how children learn concepts of number, operations and early algebra. They will also consider possibilities for professional learning in their workplaces and for developing local CGI leadership.

While exploring the CGI framework and research, participants will learn to: (1) analyze story problems and number sentences to determine their mathematical demands and recognize student responses in terms of cognitive development; (2) assess students' thinking and design problems that will develop understanding of concepts and skills; (3) facilitate discussions that provide a window into children's thinking and strengthen children's ability to reason arithmetically and algebraically; and (4) develop students' relational understanding of equality, understanding of the fundamental principles of arithmetic, and use of efficient and accurate invented algorithms for computation and number facts. Classroom artifacts including video and students' written work will be central elements of this CGI professional learning.

## **Participants**

Participants are strongly encouraged to attend CGI in teams, and it is recommended that each team have at least one classroom teacher. Other team members could include: additional classroom teachers, mathematics coaches and other teacher leaders; building or district curriculum directors and other school administrators; and university math educators/researchers who are responsible for selecting, designing, or leading mathematics professional development.

### **Cost & Registration**

\$895 per person if registration and payment or purchase order are received by May 20, 2007

\$945 per person if received after May 20, 2007

Register online at <u>www.teachersdg.org</u> or using the attached form.

#### **Instructors**

Megan Loef Franke and Rebecca Ambrose each began their careers as classroom teachers. Megan Franke is now an associate professor in the Graduate School of Education and Information Studies at UCLA, where she studies teacher and student learning in the context of mathematics professional development. She is co-author of Children's Mathematics: Cognitively Guided Instruction (Carpenter, Fennema, Franke, Levi, and Empson, 1999) and Thinking Mathematically: Integrating Arithmetic and Algebra in Elementary School (Carpenter, Franke, and Levi, 2003). Rebecca Ambrose is an assistant professor of mathematics education at UC-Davis, where her work includes supporting CGI instruction at a K-6 school serving economically disadvantaged students. She has been a member of the CGI Research Team since 1993.

#### **Schedule**

#### Reception

#### Opening Keynote by Megan Loef Franke

Sunday, June 17, 6:30 pm

#### Sessions

Monday-Thursday, June 18-21, 8 am - 4 pm Friday, June 22, 8 am - 2 pm

Note: the Wednesday afternoon session will include a special cross-project activity to re-focus on the guiding principles for effective professional development framed during the opening keynote

#### **Closing Keynote and Reception**

Friday, June 22, 2 pm - 5 pm

### Site & Lodging

#### Portland State University (PSU) Campus

Opening Keynote: University Place Hotel All other sessions: PSU Neuberger Hall

PSU is located in the heart of downtown Portland, Oregon, within walking distance of shopping, parks, waterfront, restaurants, and theatres.

Symposium lodging rate, \$99, available at: University Place Hotel 310 SW Lincoln Street, Portland, OR 97201 http://www.pdx.edu/cegs/uplace.html



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#### Registration Information

**ENROLLMENT** is limited to assure quality. Registrations accepted on first-come, first-served basis. Late registrations accepted if space is available.

#### **REGISTRATION FEE**

\$895 if payment or PO received by May 20, 2007. \$945 if received after May 20. Includes all instruction, materials, receptions, and daily continental breakfasts and lunches.

**REGISTER ONLINE** or by **FAX** with credit card or purchase order information by June 5, 2007—

Online: www.teachersdg.org Fax: 503-650-1575

**OR MAIL** this form with check, credit card payment, or purchase order information by June 5, 2007 –

Teachers Development Group 1715 Willamette Falls Drive Suite 200

West Linn, Oregon, 97068

#### **CANCELLATIONS**

If you must cancel, a substitute participant is always welcomed. Otherwise, \$50 is nonrefundable. All additional payments fully refundable up to 20 days before the event, nonrefundable thereafter:

## OPTIONAL GRADUATE CREDIT

3 quarter-hours of Portland State University grad credit, MTH 8I0, available for total cost of \$150. Register and pay onsite for credit. Grades are Pass/No Pass or A-F, available at www.pdx.edu after September 2007.

	Each team member must complete a separate registration form.			
NAME			POSITION/TITLE	
PREFERRED MAILING ADDRESS			HOME OR WORK?	
CITY	STATE	ZIP	WORK PHONE	
GRADE LEVEL FOCUS OF WORK		E-MAIL ADDRESS		
SCHOOL DISTRICT/UNIVERSITY/AGEN	CY			
NAMES OF ALL OTHER TEAM MEMBER	S WHO WILL AT	TEND		
PAYMENT BY (CHECK ONE):				
CHECK OR MONEY ORDER			OVAZINIO DO INIEOV	
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An e-mail confirmation of this registration will be sent to you within 5 working days of its receipt by TDG.

TO REGISTER ONLINE: <a href="www.teachersdg.org">www.teachersdg.org</a>
QUESTIONS: 503-650-1914, 877-650-1914 (toll free), emily.canady@teachersdg.org