Stanford Summer Teaching Institute

August 4th–7th
Old Union Building
Stanford University

Lead Teach Matter
**Program Highlights**

**Special Session August 4, 8:30–2:00**

**Administrator's Forum**

*Session facilitator, Ruth Ann Costanzo*

In this session, administrators are invited to investigate topics related to student and teacher retention, professional development, and sustainable school reform. This will be a powerful opportunity for leaders from a range of large and small schools to come together and learn from both external experts and each other.

Ruth Ann Costanzo, a former principal and assistant superintendent, is the Director of Clinical Practice at STEP.

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**Keynote Speakers**

**Dr. Larry Cuban**

Dr. Larry Cuban is Professor Emeritus of Education at Stanford University. With his fourteen years of teaching social studies in inner city high schools, his seven years as a district superintendent of the Arlington, Virginia Public Schools, and his ongoing scholarly work on the history of US education, Cuban is uniquely prepared to offer students at the School of Education and teachers in the field a broad and real-world perspective on what works and what doesn’t work in K–12 teaching.

At Stanford Cuban has taught courses in the methods of teaching social studies, the history of school reform, curriculum, and instruction, and leadership. He has also been the faculty sponsor of the Stanford Schools Collaborative and Stanford’s Teacher Education Program. Students in the School of Education selected Cuban for an award in excellence in teaching seven times. He continues to work with Bay Area teachers and administrators through the Stanford Educational Collaborative.

His major research interests focus on the history of curriculum and instruction, educational leadership, school reform and the uses of technology in classrooms. His most recent books are: *Partners in Literacy: Schools and Libraries Building Communities through Technology*, 2007 (with Sondra Cuban); *Cutting Through The Hype: A Taxpayer’s Guide to School Reform* 2006 (with Jane David); *The Blackboard and the Bottom Line: Why Schools Can’t Be Businesses* (2004); *Powerful Reforms with Shallow Roots: Improving Urban Schools* 2003 (edited with Michael Usdan); and *Why Is It So Hard To Get Good Schools?* (2003).

**Dr. Keith Devlin**

Dr. Keith Devlin is a Senior Researcher at CSLI and its Executive Director, a Consulting Professor in the Stanford Department of Mathematics, and a co-founder of the Stanford Media X research network and of the university’s H-STAR institute. He is a World Economic Forum Fellow and a Fellow of the American Association for the Advancement of Science. His current research is focused on the use of different media to teach and communicate mathematics to diverse audiences. He also works on the design of information/reasoning systems for intelligence analysis. Other research interests include: theory of information, models of reasoning, applications of mathematical techniques in the study of communication, and mathematical cognition.

Devlin has written over 26 books, including his most recent: *The Numbers Behind Numbers: Solving Crime with Mathematics* 2007 (with Gary Lorden). A companion volume to the hit CBS television series for which Devlin is a consultant, the book explains the real-life mathematical techniques used by law enforcement agencies to help catch and convict criminals. Devlin also wrote *The Math Instinct: Why You’re a Mathematical Genius (Along with Lobsters, Birds, Cats, and Dogs)* (2006), where he explores how humans can improve our math skills by learning from dogs, cats, and other creatures that "do maths". Devlin has published over 75 research articles and is a monthly regular on National Public Radio’s Weekend Edition, where he is known widely as “The Math Guy”.

Dear Colleagues,

As we cheer the finale of another successful school year, we at the Stanford Teacher Education Program (STEP) and the Teachers for a New Era (TNE) project enthusiastically invite you to join us for the third annual Stanford Summer Teaching Institute.

Building upon the success of our earlier Institutes, this year’s program offers a constellation of courses that will delve deeply into issues of powerful teaching, mentoring, and school leadership. They also bring together as instructors expert educators from a range of institutions, from K-12 schools and the Santa Cruz New Teacher Center to departments from across Stanford University. Through the lens of our organizing theme, “Content Matters”, the Institute courses will invite you to collaborate with colleagues as you inquire into the pedagogical issues that are at the heart of each discipline.

The Institute is organized into morning and afternoon sessions. The morning sessions focus on cross-disciplinary and grade-level themes such as teaching English language learners, developing authentic assessments, differentiating instruction, and ways of bringing art into the classroom. The afternoon sessions break out into content area topics such as the science of global warming, the teaching of humanities, and elementary mathematics instruction. Over the four days of the Institute, these exciting courses will help you make connections between current research and theory and your own classroom practice.

We are also pleased to offer a chance for school administrators to come together for half-day Forum to investigate topics related to student and teacher retention, professional development, and sustainable school reform. This will be a powerful opportunity for leaders from both large and small schools to come together and learn from our own collective wisdom as well as external experts.

Above all, the Institute is a chance for the teachers and schools in the STEP community to stay connected with each other and with STEP as a way to continue to grow and learn. We look forward to seeing you this summer!

Warm regards,

Peter Williamson
Director, Teachers for a New Era
MORNING SESSIONS

Institute courses are organized into morning and afternoon sessions. Morning sessions are interdisciplinary and appropriate for those teaching any grade, elementary through secondary. Afternoon sessions are content specific, and are identified as appropriate for either secondary or elementary teachers. All courses will meet each day, for each of the four days. Make sure you sign up for both a morning and an afternoon session!

Building English Learners’ Academic Language and Literacy
This session will help teachers to fortify teaching and assessment practices in ways that build English learners’ academic oral language, reading comprehension, and writing skills. Participants will experience, reflect on, design, and adapt a core set of content and language teaching strategies, with a focus on the linguistic and cognitive demands of listening, talking, reading, and writing in school.

Jeff Zwiers is a Stanford lecturer and an induction mentor who conducts professional development for teachers around the world. He has written several books and articles on academic language and literacy development.

Groupwork in Heterogeneous Classrooms: Creating Groupworthy Tasks
This session will focus on the theory and practice of groupwork in heterogeneous classrooms. Participants will learn strategies for making groupwork truly collaborative while increasing the participation, and therefore the learning, of all students. Time will be set aside for development of projects for classroom use.

Paige Price is an English teacher and WASC Coordinator at Mountain View High School. She is also a STEP Cooperating Teacher and co-instructs the Heterogeneous Classrooms course at STEP.

Moving All Students Forward! Leveraging Differentiated Instruction to Increase Academic Success
Differentiation modules will take teachers through a process of applying five basic components of differentiated instruction to content area instruction: pre-assessment, differentiating environment, differentiating content, differentiating process, differentiating product. Teachers will learn how to apply content-based, differentiated tools and strategies in order to meet the diverse learning needs of students.

Laura Gschwend is a Secondary Specialist at the New Teacher Center at University of California, Santa Cruz. She develops professional development curricula and sessions for mentors in the areas of differentiated instruction and literacy.

Using Open Educational Resources and Web 2.0 Tools for Curriculum Development
Open Educational Resources (OER) offer teachers an in-depth learning process around finding, creating, modifying, reviewing, and discussing curriculum and other materials that are free to use and share. Using these online resources—as well as web-based applications and multimedia tools—participants in this session will become familiar with “open content”, engage in authoring, finding, and adapting resources, and apply inquiry-based learning and web 2.0 tools to new models for peer production and collaborative sharing of curriculum.

Mark Basnage develops and teaches technology-focused educational programs at the Institute for the Study of Knowledge Management in Education (ISKME). He works with educators in public and private schools as well as teacher preparation programs and museums.
Learning to Talk and Talking to Learn
In this session we will examine how classroom conversations can be powerful tools for helping students understand and explore new ideas. While nearly every kind of learning activity involves some kind of talk, facilitating interactive, responsive conversations that build on students’ ideas and strengths can be daunting. This session will examine the potential of classroom talk and the role that teachers can play in helping students become questioners, listeners, and interpreters. We will explore the theory of how people learn through discourse, as well as strategies that K-12 teachers can use to foster deep curricular conversations in the classroom.

Heather Hebard is a doctoral student in Curriculum and Teacher Education at Stanford. A former elementary school teacher, Heather currently teaches elementary literacy courses at STEP and studies teacher learning.

Peter Williamson is the Director of Stanford’s Teachers for a New Era initiative. He also instructs the English Curriculum and Instruction course at STEP.

Teaching and Learning with Art
We will begin this session by considering what contemporary research has to say about the benefits of bringing art into teaching and the classroom, paying particular attention to the current debate over teaching art for art’s sake versus using art as curricular enhancement. Considering arts for art’s sake, we’ll practice specific ways to speak to children and teens about art, to teach critique and appreciation skills, and to display, record and chronicle student artwork. Considering how art can enhance the curriculum, we’ll explore guidelines for designing art into lesson plans, and also discuss how to evaluate student art and learning. Teachers will role play art and learning conversations, create group art projects and displays of them, and spend time creating lesson plans for their own classrooms. No artistic expertise is required for this session!

Jennifer Lynn Wolf, a former high school English teacher, is a lecturer in the Stanford School of Education. Her interests include the role of literature and the arts in learning.

Authentic Assessment
Using formative assessment in a deliberate and well-coordinated fashion is a powerful practice that helps teachers direct and refine instruction day by day. We will explore tools that teachers can use to help them examine their own formative assessment practice. Guided conversations that focus on actual work in classrooms will help them uncover existing opportunities for assessment and devise new ones. Finally, participants will learn how to use these tools as the basis for engaging in inquiry with colleagues around changing assessment practices among groups of teachers or in a whole school.

Vicki Baker is a National Board certified middle school science teacher who also works on curriculum and assessment at West Ed and the CAPITAL project at Stanford.

Sandy Dean is the Director of the National Board Resource Center at Stanford, where she supports experienced teachers through the process of understanding the National Board standards, and identifying and demonstrating them in actual classroom practice.

Principles and Practices of Effective Mentoring
This session focuses on the development of productive mentoring relationships. It explores the various roles that mentors serve—coach, colleague, observer, model, and evaluator. Participants will practice approaches that support the professional growth of novice teachers, including the use of individualized observation protocols, the delivery of targeted feedback, and strategies for effective conferences. Anyone interested in guiding the work of new teachers is welcome to attend.

Kelly Bikle is a Clinical Associate for STEP Elementary. She supervises teacher candidates, mentors beginning teachers, and provides support for cooperating teachers and supervisors.

Christa Compton is a Postdoctoral Fellow and instructor for STEP, where she supervises teacher candidates and conducts research related to supervision and mentoring.
Teaching Historical Thinking, Reading and Writing: Problems of Practice  
*For High School Teachers*  
This session will focus on engaging students of varied abilities and interests in challenging, literacy-based, history/social science tasks. We will use sample standards-based lessons to identify and discuss common teaching problems related to this goal. Participants will also have the opportunity to share and discuss classroom artifacts. Throughout our time together, we will draw on the expertise of the group. Additionally, the session will include a demonstration of new digital resources for teaching World and U.S. History and Civics.

**Brad Fogo**, a former middle school and high school history teacher, is a PhD candidate in Curriculum and Teacher Education at Stanford. He co-instructs the History/ Social Science Curriculum and Instruction course at STEP.

**Daisy Martin**, a former high school history and civics teacher, is currently the Co-Director of the National Clearinghouse for History Education and a post-doctoral scholar in the Stanford History Education Group. She works with teacher candidates, undergraduates, and experienced teachers.

Science Explorations Through the Lens of Global Climate Change  
*For High School Teachers*  
Global climate change is a scientific, social, and political issue that is as prevalent in news headlines as it is in your classroom. This session will include lectures from Stanford faculty interwoven with hands-on multidisciplinary activities for middle and high school science classrooms. These lectures and activities will help you answer several questions: How does climate work? How does human activity affect climate? What are the impacts on the planet from large-scale rapid climate change? Can technology help minimize those effects? In addition to answering these questions, the session focuses on tools scientists use to advance research. In discipline-specific breakout groups, you will have the opportunity to reflect on how to implement the session content into lessons for your classroom.

**Kyle Cole** draws on seventeen years of teaching chemistry, biology and nanoscience to connect cutting-edge research with K-12 science in his role as the Associate Director of an NSF-funded Center at Stanford.

**Paul Grossi**, Associate Director of Stanford’s Office of Science Outreach, is a former high school physics and astronomy teacher. Before coming to Stanford, he led teacher development programs as Director of Education at Resource Area for Teaching (RAFT).

**Jennifer Saltzman** develops and manages educational opportunities for school kids, teachers, science journalists, and the broader public as the Educational Outreach Coordinator for Stanford’s School of Earth Sciences.

Building and Sustaining a Culture of Writing  
*For High School Teachers*  
Building and Sustaining a Culture of Writing will focus on concrete ways to bring more—and better—writing into the curriculum and to engage students in writing activities that will lead to deep learning. We will cover a range of topics, from crafting assignments and activities, to collaborative writing projects, multimedia writing and speaking, student writing exchanges, and responding to student writing. Throughout, we will be identifying ways to put the spotlight on student writing and to celebrate the achievements of young writers.

**Marvin Diogenes** is Associate Director of the Program in Writing and Rhetoric and Assistant Vice Provost for Undergraduate Education at Stanford.

**Andrea A. Lunsford** is the Louise Hewlett Nixon Professor of English at Stanford, Director of the Program in Writing and Rhetoric, and Co-Director of Ravenswood Writes and Project WRITE.

**Clyde Moneyhun** is Associate Director of the Program in Writing and Rhetoric, Director of Stanford’s Hume Writing Center, and co-Director of Ravenswood Writes.
Afternoon Sessions

Teaching Mathematics
For High School Teachers
With this session under your belt, you should be well placed to answer—in several different ways—that eternal student math question, “What is this good for?” Also, in addition to looking at ways to tie mathematics into the everyday world, including taking a look at some useful resources to help do this, we’ll investigate just what it is about mathematics that makes it so hard for so many people to learn, and try to understand why so many smart people seem to have such widely differing opinions as to how best to teach math. To top it off, we’ll speculate as to how new technologies may change the way we teach (some) mathematics. And finally, we’ll spend time incorporating these ideas into your existing classroom practices.

Keith J. Devlin, Executive Director of Stanford University’s Center for the Study of Language and Information and a Consulting Professor of Mathematics at Stanford, is a commentator on National Public Radio’s Weekend Edition, where he is known as “The Math Guy”.

Shoba Farrell teaches high school math in San Francisco. She got her Masters in Math Education from Stanford in 2006.

Megan W. Taylor is a National Board certified math teacher and a doctoral candidate at the Stanford School of Education. Her research focuses on helping teachers use their curricula more effectively.

Teaching Humanities
For Middle and High School Teachers
This session will investigate approaches to teaching the humanities in secondary school in ways that both respect disciplinary ways of reading and writing and allow for interdisciplinary explorations. We will focus on a core text that is commonly taught in high school humanities classes and look at ways of layering literary, historical, and artistic texts and images to create a truly interdisciplinary curriculum.

Pam Grossman, professor of education at Stanford University, is the co-editor of Interdisciplinary Curriculum: Challenges to Implementation. She teaches the English C&I course for STEP.

Nikole Richardson, a former high school history teacher, is a doctoral student in the Stanford School of Education.

Bryan Wolf is a professor of Art and Art History at Stanford University.

Teaching Elementary Math
For Elementary School Teachers
This session will focus our attention to key elementary mathematics and science topics and consider how best to teach and learn these topics in classrooms. Drawing upon research-based student learning trajectories, we will analyze different student work samples, examine instructional approaches (lessons), and try out mathematics and science activities together. Teachers are encouraged to bring their own experiences and questions to the session, and we will have an opportunity to develop plans for your own classroom teaching.

Aki Murata, a former elementary teacher, is an assistant professor of elementary mathematics education at Stanford.
Institute Information and Registration

Eligibility
The Stanford Summer Teaching Institute is designed by and for educators in the Stanford Teacher Education Program community. Eligible participants include:

- STEP graduates
- STEP Partner School educators
- STEP cooperating teachers
- STEP supervisors
- STEP instructors and faculty

Registration
The 2008 Stanford Summer Teaching Institute is a four-day symposium. Courses will meet each day, so participants are able to sign up for both one morning and one afternoon session.

- Early registration fee, on or before Sunday, June 1: $200
- Regular registration fee, on or after Monday, June 2: $250

The registration fee covers all Institute costs, including:

- Courses
- Meals
- Special events and speakers

Administrator’s Forum
A $50 registration fee includes the session, lunch, and that day’s special events and speakers.

Units
Participants are eligible to receive one Stanford Continuing Studies unit per Institute course, for a total of two units. An additional $50 fee will apply if you wish to register for units. Transcripts are included in the unit registration fee. Units can only be granted to participants who complete the courses.

Questions? Information?
If you have questions or need information about hotels where Stanford has negotiated rates, please contact Laura Burns Wood at redwood3@stanford.edu

Please visit the Summer Teaching Institute website to register:
https://www.stanford.edu/group/tne/ssti.html