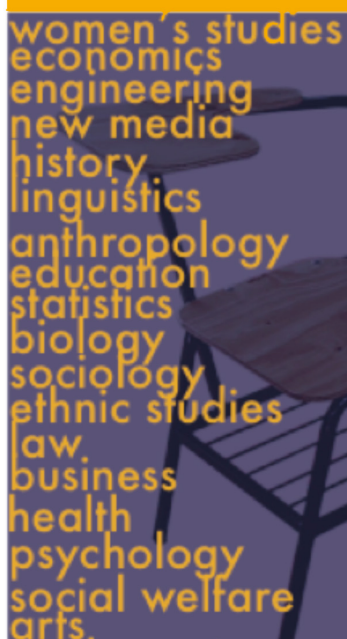University of California, Berkeley

15th Annual

Education Research Day

Friday, April 3rd, 2015, 9am-6pm

Sponsored by the Graduate School of Education and the Berkeley Review of Education

women's studies
economics
engineering
new media
history
linguistics
anthropology
education
statistics
biology
sociology
ethnic studies
law
business
health
psychology
social welfare
arts

Public education continues to be a contested arena in which individual dreams, national needs, and the common good coalesce or collide. Today, efforts to understand, improve, and reform K-12 education and beyond are engaged in by educators, lawyers, policy makers, community activists, business entrepreneurs, parents, and others.

The Graduate School of Education and the Berkeley Review of Education are pleased to highlight the tremendous diversity of education-related research projects and initiatives that students, faculty, and professionals engage in across the Berkeley campus.

Program Overview

9:00 – 9:30	**Sign-in and Morning Refreshments:** *Education Psychology Library*

9:30 – 10:40	**Opening Plenary & Welcome:** *Education-Psychology Library*
	Teaching in the 21st Century:
	Where We Are and Where We Want To Go
	    Anthony Cody, Host of livingindialogue.com & Public School Advocate
	    Kris Gutiérrez, Professor of Language, Literacy, and Culture
	    Jabari Mahiri, Professor of Language, Literacy, and Culture
	    Gia Truong, Superintendent, Envision Education

10:45 – 12:00	**Session I:** *Tolman Hall*
12:00 – 1:00	**Lunch:** *Education Psychology Library*
1:00– 1:40	**Fireside Chats:** *Education-Psychology Library* Join us for Conversations on the GSE Dean's Search, Research Day, Best Assessment Practices, Sex-Ed, Tutoring, and other exciting education topics
1:45 – 3:00	Session II: *Tolman Hall*
3:05 – 4:40	Session III: *Tolman Hall*
4:45 – 6:00	Poster Session, *Education-Psychology Library, Children's Room* Reception and Celebration, *Education-Psychology Library*

Presentation Formats

Short Papers	These sessions provide authors an opportunity to present an abbreviated version of their work. The 'paper' presented may be a finished product or a work in progress.
Group Presentations	Presentations are grouped according to a common theme, with each presentation adding a complementary or supplementary perspective on the topic.
Workshops	These are presentations in which others can learn from the presenters' experiences with a tool, technique, or process of graduate school, of research, or of writing.
Interactive Session	Presenters pilot or receive feedback on a designed artifact, e.g., a computer simulation, robot, questionnaire, or group activity etc. Attendees are invited to work with the artifact or data as directed by the presenter/researcher.
Consultations	Consultations allow maximum interaction with the presenters. Individual presenters are assigned tables in a large meeting room where interested persons may gather for a discussion with the presenter about his or her paper or project, or they may move among a variety of tables.
Posters	Poster sessions combine graphic display of materials with the opportunity for individualized, informal discussion of the presenter's research. Attendees are welcome to move among the posters to see the breadth of research taking place in the Graduate School of Education.

Welcome & Opening Plenary Session – 9:30-10:40

Education-Psychology Library

Teaching in the 21st Century: Where We Are and Where We Want To Go
Anthony Cody, Host of livingindialogue.com & Public School Advocate
Kris Gutiérrez, Professor of Language, Literacy, and Culture
Jabari Mahiri, Professor of Language, Literacy, and Culture
Gia Truong, Superintendent, Envision Education

Teachers are critical to the success of the US educational system. The pendulum of discourse on teachers swings wildly from hailing teachers as noble heroes to criticizing them as recalcitrant bureaucrats. Of course, the story is more complicated than any stark metaphor. Teaching and teachers are part of a complex system, demanding thoughtful attention, deliberate research, and engaged dialogue.

We begin Education Research Day with a conversation that we hope will leave you with more questions than answers. Our panelists bring together a range of experiences and backgrounds to query the conditions shaping the role of teachers and the horizon ahead. Join us for what promises to be an exciting conversation informed by research, theory, and practice.

Session I – 10:45-12:00

Session I.A, Consultation Roundtables, 2515 Tolman

Renee Starowicz, Special Education
AAC Adolescent Identity

This presentation will discuss a secondary qualitative data analysis of dialogue samples from an adolescent student that uses Augmentative and Alternative Communication (AAC) with a peer and Speech Language Pathology student. Trends in comments related to identity will be collected and coded for themes. This presentation will situate itself in the current literature related to adolescent identity, Disability Studies and AAC. This project seeks to bring forward the words of a student through her dialogue and interview responses. I will discuss the limitations and other possible data sources for this project.

Dorothea Taube, Educational sciences & Sociology: Global education
Teacher professionalization in the field of global education – Exploring individual learning processes and the development of beliefs about the global society

Global education, which aims at strengthening people's awareness for sustainability, teaching knowledge on global complexities and skills to critically engage in a global society, is increasingly incorporated in school curricula worldwide. To that end, teachers' training in global education is of particular importance as they are responsible to apply a global perspective and connect global complexities to students' everyday lives. The planned research project explores teachers' learning processes and the development of epistemological beliefs and views about the global society in formal and informal settings of professionalization. The study follows a qualitative, hypothesis generating approach, based on biographical interviews. Data will be analyzed using the Documentary Method, which provides insight into implicit knowledge teachers develop to make sense of the world as a global society. Tracing back those beliefs to learning processes and individual experiences will enrich the discussion on teachers' professionalization on a theoretical and practical level.

Natalee Kēhaulani Bauer, Social & Cultural Studies (SCS)
(En)gendering Whiteness: A Historical Analysis of White Womanhood, Colonial Anxieties, and "Tender Violence" in US Schools

By asking, "How and why has the role of the white female teacher developed over time and in varying geographic locales?" this study provides a gendered historical analysis of the reinforcing relationship between settler colonialism and anti-Blackness as manifested in schools. Thus, this dissertation offers a critical link between past and present as a way through which teachers and researchers can consider the over-disciplining of students of color, a task largely performed by white females in an institution haunted by the specter of an imagined benevolent whiteness, as expressions of contemporary "colonial anxieties" (Stoler, 2009). Further, I anticipate this analysis will provide insights about how we might train teachers to recognize the historical and structural forces behind their implicit bias, to divest from the ideology of benevolent whiteness, and to think more critically about their roles in relation to youth of color.

Session I.B, Paper Presentations, 3635 Tolman

Zehlia Babaci-Wihite, Language, Literacy and Culture (LLC)
Local Languages in Science Literacy as a Human Right in Education.

This paper will address how to incorporate global and local learning and sustain local languages in education through science literacy, arguing that learning in local languages in schooling based in local knowledge ought to be defined as a human right in education. I will frame my argument with the theories that draw on history compiled from the perspectives of both the dominant and non-dominant cultures in several part of the world with a focus on Africa. I first examine key assumptions about knowledge that inform mainstream educational research and practice. I then argue for an emphasis on the contextualized dimension of learning as a human right in education. I introduce alternative assumptions about the value of local knowledge and languages in the teaching and learning of science subjects using the Seeds of Science/Roots of Reading model. This will form a platform for teaching and learning science as a human right.

Jody Siker, Special Education
An Arranged Marriage: General and Special Educators Preliminary Co-teaching Attitudes

Co-teaching is a much lauded and underutilized model that has potential to provide students differentiated instruction in the least restrictive environment possible. However, most studies focus on the attitudes and preferences of current, successful co-teachers. The purpose of this study is to develop a measure of openness to co-teaching using the Rasch model and to compare attitudes and preferences of general and special educators.

Session I.C, Group Presentation, 5509 Tolman

Rebecca Cheung, Viet Nguyen, Kristin Alvarez, & Kristin Tavernetti, Principal Leadership Institute (PLI)
Developing equity-centered professional learning communities in the online space

An Equity Centered Professional Learning Community (ECPLC) is commonly defined as an ongoing process in which educators work collaboratively in recurring cycles of collective inquiry and action research to achieve more equitable results for the underserved students. What does it take to develop an ECPLC in the online space? What is different about facilitating online? What unique challenges arise? What assumptions do skilled facilitators make about the online space? What participant assumptions arise?

In this session, staff from the Principal Leadership Institute's (PLI) Leadership Support Program (LSP) and Leadership Connection Online (LCO) Program discuss these questions in a moderated format. Both programs have used the ECPLC format for their online offerings with success. The session will leave time for participant questions and feedback.

Session I.D, Group Presentation, 3515 Tolman

Angela Dosalmas & Research in Cognition and Mathematics Education (RCME) Group
How "not working hard" = "naturally gifted" for White students, but "lazy" for Black students and the role other identities play

This narrative inquiry implicates socio-historical, cultural, political narratives and their associated binaries in the (re)production of inequities in mathematics. The stories 44 high school students told about mathematics, the narratives their stories were situated in and the positions these made available to the students as learners were explored. Students negotiated their relationships to mathematics through two particular competing meta-narratives – the Intellectual Development Discourse and the Schooling Discourse. These meta-narratives allowed students to read the same behavior differentially based on perceived or actual identities. For example, "not working hard" was read as natural giftedness for White students, but as laziness for Black students. Gender, class and athlete status also played a role.

Session I.E, Paper Presentations, 3507A Tolman

Oliver Arnold, Manya Teschke, Lee N. Lamprey, Florian G. Kaiser, & Michael A. Ranney, Cognition & Development (CD)
Increasing Global Warming Knowledge and Acceptance by Directly Web-Disseminating Scientific Information

Some suggest that climate science information is futile (Kahan, 2013). Disconfirming this idea, knowledge about global warming's chemical/physical mechanism is found to correlate with people's climate-change acceptance (e.g., Ranney et al., 2012). Public mechanistic knowledge is virtually nonexistent, but can be increased through short written explications. The present research aimed to replicate/extend these results, transmitting the information via web-video. Randomly assigned participants (N = 205) watched videos explaining either the (a) mechanism or (b) consequences of global warming. A control group viewed no video. Global warming knowledge and acceptance were assessed with short-answer and rating-scale questions. Viewing the mechanistic video tripled participants' knowledge ($t(202) = 11.0^{**}$). Furthermore, acceptance increased both in the mechanistic and the consequences video groups ($t(202) = 2.8^*$ and 3.2^*, respectively). Acquiring mechanistic knowledge increases global warming acceptance. To widely disseminate this powerful scientific information, mechanistic videos and texts, etc., are disseminated in various languages through www.HowGlobalWarmingWorks.org.

Michael Singh, Social and Cultural Studies (SCS)
Frantz Fanon and Education

For decades the writing of Black Caribbean thinker Frantz Fanon (1925-1961) has been iconic for those colonized and formerly colonized peoples struggling to make sense of their world. It is the goal of this paper to utilize Fanonian discursive frameworks to understand the issues of colonialism and colonial relationships in schooling, as well as, offer theories of decolonial processes that may take place in the realm of education. To do this, I shall perform a close reading of the work of Frantz Fanon, with special emphasis given to his texts Black Skin, White Masks (1967, 2008) and The Wretched of the Earth (2004). This paper also engages the work of several thinkers, including Sandoval (2000) and Maldonado-Torres (2008) among others, who have looked to Fanon for decolonial possibilities.

Session I.F, Paper Presentations, 5634 Tolman

Alexander Blum, Literacy & Cognition
Comic Strips at Reasoning

This study used a comic-strip assessment (Based on Item Response Theory) designed to elicit inferential thinking on adults. The participants read a series of comic-strips on everyday social events and were asked to provide their answer and reasoning as to why a character performed a certain action and what the moral of

the story is. There were two types of inferential thinking investigated - script-implicit inferences (inferences based on background knowledge and experiences - global processing) and text-implicit inferences (inferences based on details explicitly found in the story - local processing). Results suggest that these two types of inferential thinking are leveled and that script-implicit inferences are leveled above text-implicit inferences.

Marialena Rivera, Policy, Organization, Measurement & Evaluation (POME)
Consequences of Privatization: School Districts and their Relationships with Private Financial Consultants

This paper describes the consequences of privatization when school districts enter into contracts with private financial consultants. Through closely investigating the contractual relationships between districts and the private organizations they hire or partner with to conduct debt financing transactions in the state of California, this work reveals the extent to which realities on the ground reflect theorists' predictions about the consequences of contracting and educational privatization. This paper situates school district debt financing within the broader educational privatization movement. This movement redirects educational decision-making from the public to the private realm and is comprised of an increasingly powerful and growing body of private organizations that profit from contracts with school districts. Through analyzing the nuances of how districts enter into and maintain contractual relationships with private financial consultants over time, this research helps us better understand the consequences of contracting and the implications for democratic accountability.

Session I.G, Paper Presentations, 2319 Tolman

Virginia Flood, Education in Math, Science, and Technology (EMST)
Multimodal Revoicing Interactions: Two New Forms

How do learners come to connect embodied experience with cultural-historical definitions? We compare two cases of a learner-instructor dyad negotiating the meaning of "faster" to investigate the role embodied, multimodal discourse plays in processes of collaborative semiosis within a technology enhanced discovery-based mathematics learning context (the Mathematical Imagery Trainer for Proportion). We implicate and characterize two new forms of multimodal revoicing interactions: (a) Selective gestural repetition with co-timed elaborated verbal content and (b) Elaborated gestural content with co-timed repeated verbal content in this process. Closer investigation of these forms may lead to deeper understanding of how responsive teaching supports embodied learning.

Lakshmi Balasubramanian, Murriel Evans, & Julie Kelly Special Education & Principal, Fremont USD
Making Inclusion Work - A Learning Center Model

According to the National center for Inclusive Education (2011), effective inclusive practices constitute presumed competence, authentic membership, full participation and reciprocal social relationships for all children with disabilities in age appropriate general education classrooms. The Center also stresses the need for appropriate supports to be provided for teachers and students for them to be successful. The growth in the number of students at risk for school failure has made it difficult for general education in itself to address the needs and respond with effective service delivery options that address the intensive requirements of these students. In the process of providing assistance, they get identified for special education in the hope that they can get "caught up." This has led to an increase in special education referrals and identification. The increased need also means that services are provided only after a student is significantly behind. Although the goal of special education is to ameliorate the gap, statewide data shows that 65% to 80% of students with learning disabilities do not exit. We are proposing a "Learning Center" model at Hirsch Elementary at the Fremont Unified School District to a) include more students with special needs in the general education setting and b) provide assistance and intervention to general education students who are at risk (academic, social or functional).

This model will, we hope, be a pilot and serve as an example for successful implementation of inclusive services (as determined by the IEP) district wide. The theoretical framework for the model and the central tenets of it will be elaborated upon. Plan for roll out and implementation will be reviewed.

Lunch – 12:00-1:00

Education Psychology Library, Tolman Hall, 2nd Floor

Lunchtime Fireside Chats – 1:00-1:40

Education-Psychology Library

Join us for Conversations on the GSE Dean's Search, Research Day, Best Assessment Practices, Sex-Ed, Tutoring, and other exciting education topics

Session II – 1:45-3:00

Session II.A, Workshop, 2515 Tolman

Seenae Chong & Laura Hernandez, Berkeley Review of Education (BRE)
BRE Demystifying the Publications Process: Submitting Manuscripts and Engaging in Peer Reviews

While publications are a critical component of the academic portfolio, writing for publication and the publication process itself are not often made explicit to graduate students. As a result, stepping into the world of journals can be overwhelming. This session offers insights and advice in writing specifically for journals. Sponsored by the Berkeley Review of Education (BRE), an interdisciplinary peer-reviewed journal run by graduate students at UC Berkeley, this session will focus on how to select journals, an overview of the publication process, and an overview of the peer review process (including how to interpret feedback), with ample time for extended discussion in which participants can share their knowledge and experiences about publishing in academia.

Session II.B, Paper Presentation & Interactive Session, 3635 Tolman

Joshua Sussman, Educational Measurement
Outcome Assessment in Evaluation of Math and Science Interventions: Large-Scale Assessments and the Concept of Alignment

How does one select an outcome measure for impact evaluation of a math or science intervention designed to improve student achievement? Evidence from the literature shows that investigators use large-scale assessments, such as state assessments, for experimental and quasi-experimental evaluation of math and science interventions. However, scholars have questioned the validity of large-scale assessments for impact evaluation of educational interventions. In this study we apply an analytical method based on alignment to uncover potential problems with the use of large-scale assessments as outcome measures in Institute of Education Sciences (IES)-funded math and science education program research. Analysis of the IES database shows that 49% of funded projects list a large-scale assessment as a key measure; 47% of those are potentially problematic. We present three example projects that illustrate misalignment between large-scale assessment and intervention. The results raise questions about the validity of IES-funded evaluations requiring greater attention from educational leaders.

Pierre Tchetgen, Language, Literacy and Culture (LLC)
Digital Talking Drum

This presentation is part of the research on digital orality systems in association with artists, educators and youth to gain insight on the factors that can improve computer-mediated learning experiences among students and teachers of color in both school and out-of-school settings that engage students' language development using culturally-relevant modalities of communication and self-expression.

In this interactive session, we will explore and discuss different modes of communication, from the old talking drums of Africa's griots to the modern tools of today's digital youth, and reflect on their affordances in terms of the educational and socialization objectives of schooling.

Session II.C, Group Presentation, 5509 Tolman

Andrew Phuong, Judy Nguyen, & Audrey Tsai, Educational Equity and Access in Higher Education Classrooms
Creating an Optimal Learning Environment: The Impacts of Democratic, Multimodal, Assessment-Driven, and Gamified Pedagogies on Equity and Access

This study examines whether and how democratic, multimodal, assessment-driven, and gamified pedagogies serve diverse students' needs and preferred modes of learning, in order to increase equity and access in the classroom. We operationalized equity and access as serving all students' needs so that they have access to equal opportunities and outcomes for academic achievement. For our methods, we evaluated our pedagogies' impact by coding and analyzing anonymous, numeric-course evaluations, surveys, interviews, observation notes, final projects, and weekly diagnostic and summative assessments. Our findings reveal how we incorporated student feedback and observed increasing student-engagement levels: every student spoke aloud, collaborated with classmates, and improved their performance on summative assessments. We also noticed positive psycho-social variables (e.g., resilience, hope) as students were motivated to overcome adversity, develop a strong growth mindset, and take creative risks in a safe space. We achieved 7/7 average course ratings and A-level final projects from all student— suggesting that we have reduced barriers to equity and access.

Session II.D, Interactive Session, 2320 Tolman

Wenqian Bai, Anna Zarkh, & Dana Rosen, Embodied Design Research Laboratory (EDRL)
Understanding What Are Process And Object In Algebraic Expression Of Polynomial Factorization

This presentation is a research problem of Design Based Research class. It is about that how to perceive process and object in mathematical understanding learning. It is a kind of deepgoing thinking. This research problem proves there exist in process and object in algebraic expression of polynomial factorization with the help of algebra tiles' context.

Session II.E, Paper Presentations, 3507A Tolman

Abram Jones, Language, Literacy, & Culture (LLC)
Integrated Versus Isolated Form-Focused Instruction in the L2 French Classroom

Form-Focused Instruction (FFI) is a teaching method that is demonstrably effective at instructing morphosyntax at beginning and intermediate levels. FFI is deployed within the communicative syllabus. With an eye for providing an authentic instructional context, FFI practitioners attempt to teach grammar points in-line with communicative activities, but this is not always the most effective way to teach grammar. This study reviews recent research and incorporates a case study on learner preferences on integrated vs. isolated FFI.

Charissa Tansomboon, Human Development & Education (HDE)
Choosing Between Person- and Process-Praise: Exploring Students' Preferences for Feedback in Success Versus Failure Conditions

Whereas many existing studies on person- and process-praise expose children to one type of feedback at a time, the current study exposes children to two teachers -- one endorsing person-praise and one endorsing process-praise -- thus allowing us to examine children's preferences between the two while manipulating their feeling of success or failure. Children told that they were failing on a task were significantly more likely to report that they preferred the process feedback teacher, while those led to believe that they were succeeding showed equal preferences for both teachers. Results were more highly significant for boys than girls, and for children who endorsed permanent labels of goodness. Implications for help-seeking and applications of theories of intelligence are also discussed.

Session II.F, Paper Presentations, 5634 Tolman

Alyse Schneider, Education in Math, Science, and Technology
The Invisible Hand of Whiteness and the Common Sense of Mathematics Education Reform

Through a conceptual analysis of mathematics education research documents and personal observations, I argue that a trio of ideas has become "common sense" (Gramsci, 1971) within the white institutional space of mathematics education research (Martin, 2011), facilitating consent to top-down and corporate-style reform initiatives. First is the imaginary of a raced, classed, and geographically located "urban child" apart from the imagined "white social body" and deemed in need of reform by way of school mathematics (Martin, 2009; Popkewitz, 2006; Leonardo & Hunter, 2007). Second is the scientific and moral authority of mathematics education researchers to administer reform. Third is that mathematics education reform should be linked to broader (and profitable) structures for top-down administration. Links to Mills' (1997) theory of The Racial Contract and Said's (1979) theory of Orientalism are considered in order to better understand the workings of mathematics education reform in relation to broader projects on "the urban."

Kiera Chase, Special Education
Giant Steps Towards a New Approach to Learning Algebra

Despite numerous re-design efforts, algebra continues to be a challenge for many students. This design-based research study explored the conjecture that learners can mentally construct the technical properties of algebraic systems by manually constructing models. Drawing on the theory of subjective transparency, the design seeks to "level transparency" using a technological environment where students must discover and build each technical property, e.g., the uniform size of variable quantities. After manual construction, the interface then automatizes that specific property (the "reverse-scaffolding" principle). In a comparison study with forty Grade 4 and 9 participants, the study group outperformed a control group, for whom the technical features were fully pre-automatized.

Session II.G, Workshop, 4635 Tolman

Alejandra Ojeda-Beck, School Psychology
Piloting Dissertation Research In Incidental Vocabulary Learning

This presentation will outline my experience getting my dissertation pilot off the ground. This will include interaction with assessment publishing companies, IRB, and school districts.

Session III – 3:05-4:20

Session III.A, Workshop, 2515 Tolman

Andrew Galpern, POME/QME, Measurement, Formative Assessment, Test Design
How To Measure Anything: A Gentle Introduction For New Graduate Students

This workshop is designed for graduate students who are searching for thesis projects or starting to engage in research. In this workshop you will be introduced to a framework to guide your research ideas and to improve the quality of your research by examining your assumptions, and helping you to plan for the entire research cycle. This workshop will examine both qualitative and quantitative methods. So, bring your ideas and questions, and/or any data you would like to share about what you're trying to measure in your research! No prior knowledge is necessary. Everyone is welcome!

Session III.B, Consultation Roundtables, 3635 Tolman

Jaren Haber, Sciology
Moral Education and State Regulation: How Compliance Changes the Mission of the Waldorf Educational Movement

In the context of mounting state requirements for testing and specific curricula, how does state regulation shape moral education in publically funded schools? I approach this question by way of contrast: by investigating how an educational movement with a particular vision of "moral education" contorts that vision in response to state regulation. Specifically, I look at how the vision of moral education in the Waldorf movement (cultivating integrity, moral originality and responsibility, and community connection) is adjusted through curricular and cultural compliance with state standards (e.g., omitting mythology, "teaching to the test", and introducing hierarchical authority). Through (upcoming) interviews and classroom observation of the 19 publically funded Waldorf-inspired charter schools in California, this project addresses the specific question of how these schools compromise the original Waldorf moral mission and come to align with the same secular norms and values instilled in mainstream public education (e.g., universalism, individualism).

Juliet Kunkel, Language, Literacy, & Culture (LLC)
Terms Of Inclusion: Social Justice, Volunteer Tutoring, And White Supremacy

Despite a stated purpose of social justice work, well-intentioned people can still circulate longstanding discourses of deficit and pathology. This qualitative study examines a discourse community of wealthy, middle-aged, white tutor volunteers who live in an affluent part of the Bay Area. These tutors volunteer to work with low income, junior high students of color living in a nearby economically-depressed community. The students are enrolled in a scholarship program that espouses social justice intentions, and the architects and participants in the program articulate aims of equity. Through a qualitative analysis of interviews, I look at the language these tutors use in trying to make sense of their role, their students, and the end goal of the program. I address how the tutors see themselves in contrast with their students, and the evasions, contradictions, and assumptions about race, class, and language.

Sandra Song
Can Graphing Promote Students' Generation of Links Between Molecular and Symbolic Representations of Chemical Reactions with Limiting Reagents?

This study illustrates the advantages of using graphing to promote knowledge integration about chemical reactions. One hundred fourteen high school students generated drawings of their molecular ideas about chemical reactions with limiting reagents. The graphing group linked significantly more molecular and symbolic representations than the typical group on the posttest. All the students participated in the same number of limiting reagent activities. Classroom observations revealed that students used the graphs to resolve disagreements. For example, student dyads frequently linked the slopes of the graphs to the reaction coefficients. Students in the typical dyad groups infrequently linked the reaction coefficients to the drawings. The drawings for the typical group were less valuable for revealing or resolving disagreements than the graphs were for the graphing group. This study suggests that graphing is a promising way to help students integrate information on limiting reagents.

Session III.C, Group Presentation, 5509 Tolman

Catherine Lipson & Renee Starowicz, Language, Literacy, & Culture (LLC)
Language Development and Social Identity for Adolescents Using Augmentative Communication

This study examines transcript data from Year 3 of an ongoing research project to support inquiry into language use and social identity for adolescents with severe disabilities of speech. In one case, a qualitative analysis of prompting techniques used by the adult conversation partner showed that the difficulty level of the prompts affected responses during intervention. The adolescent requested additional help with less-familiar technology and software applications, and also increased frequency of help requests for word finding during

intervention sessions. Discourse analysis revealed how language development contributed to a local version of identity shared by the participants (Wortham & Reyes, 2015). Help requests reflect an increase in self-efficacy as adolescents gain confidence in their ability to acquire help from adult partners, especially with longer messages or less-familiar technology. This study contributes to the literature concerning the transition of students with severe disabilities of speech to secondary education.

Session III.D, Consultation Roundtables, 2320 Tolman

Catherine Miller, Human Development
Digital Play As An Oral Language Scaffold For ELL Preschool Students

This study investigated the potential of a multi-touch table to enhance the oral language development of preschool students who are English-language learners (ELL). Socio-cognitive theories of language learning informed this study. I (the teacher) used verbal prompts and explicit vocabulary instruction based on the visual and conceptual activities in the multi-touch table app to support emergent academic language development as students' played in small groups at the table. Twelve students placed in small groups took part in the present study: six ELLs and six English-only students. The six English-only students provided social comparison data on quantity of academic language utterances. I used a single-case design using multiple baselines across participants. Video transcripts of all sessions were transcribed and coded for emergent academic language production. Pre-, during-, and post-measures documented change in oral language. Results show a positive effect for the intervention, specifically in expressive/receptive vocabulary and academic language.

Beth McBride, STEM Education (SESAME)
Graphing and Global Climate Change Understanding

We will examine how 6th grade students understand the difference between the ozone hole and global warming through their interactions with an online unit on climate change. The unit was enhanced to include scaffolding around graphing activities. The discussion will center around the unit, its affordances and constraints, and on developing rubrics to score student work.

Kim Seashore, Mathematics and Teacher Education
Shifting Teaching Practices In The Context Of Innovative Curricula

How can innovative curricular materials support teachers in shifting teaching practices to make student reasoning more central to classroom activity? In this multi-case study I explore the ways that teachers engage with lessons designed to promote cognitive conflict and resolution through discourse in secondary mathematics classrooms. My analysis reveal substantial differences in the reasons that teachers engaged in using the lesson, the ways that they planned and implemented the lessons and the experiences of students during the teaching of the lessons. They also demonstrate how some of the teachers leveraged their participation in the study to refine their goals for students and to develop new strategies for reaching those goals.

Session III.E, Paper Presentations, 3507A Tolman

Kirsten Hextrum, Social & Cultural Studies (SCS)
The Football Antidote: How School Sports Shape Race, Class, And Gender In American Society

Every American student is at some point an athlete, fan, or a proud couch potato; in all scenarios they participate in or react to the culture of sports. The ubiquity of sports in American education remains an under-explained phenomenon. Most historians believe capitalism brought sports into schools (Clotfelter, 2011; Smith, 2011; Thelin, 1994). But economic motivations cannot explain two modern problems in college sports: the overrepresentation/exploitation of men of color and gender inequality. This presentation will demonstrate how school sports is also a raced and gendered institution that legitimates unequal symbolic and material relationships. Using an intersectional lens, I will argue that the eugenics movement, militarism, and the rising role of women alongside capitalism, drove educational leaders to sponsor interscholastic athletics. In doing so,

I reveal why present day materialistic solutions to problems plaguing college sports are insufficient, and why reforming athletics is important for education more generally.

Noah Katznelson, Language, Literacy, & Culture (LLC)
Breaking The Habitus: Constructing Sober Identities Through Narrative Practice

Can learning to tell new stories about ourselves save lives? My research supports this idea by showing how newcomers to Alcoholics Anonymous (AA) are socialized through the stories of others and into ways of telling particular stories about their lives which enable them to negotiate new sober identities. The ability to develop a new identity appears to be a key component in achieving long-term sobriety. Using ethnographic field methods, I collected and transcribed numerous AA narratives. In this presentation, I apply a language socialization and discourse analytic framework to examine the narrative of one focal participant, Luke, demonstrating that a key feature of a sober identity is the ability to both enact and transmit notions of competence through narrative. This study highlights the various ways language is used in the process of identity construction and contributes to a deeper understanding of the relationship between language, identity, and learning.

Session III.F, Paper Presentations, 5634 Tolman

Rachel Prow, School Psychology
Education in California's Prisons; Two California Prisoners Resistance in Writing

Rafael Casique is currently imprisoned indefinitely in the Pelican Bay Security Housing Unit, a solitary confinement prison in California designed to hold prisoners incommunicado for their entire lifetimes. The conditions that have been institutionalized in the Pelican Bay SHU did not exist anywhere until that prison opened in 1989, though prisoners like George Jackson, and other politically active prisoners in the 1960s and 1970s experienced those conditions on an experimental ad-hoc basis forty years ago. In my paper I explore the writings of Casique and Jackson, who have, through self-directed education, been able to articulate their inner lives to people who matter to them, and to whom they matter, thereby fostering connections that forestall the dehumanization of imprisonment and isolation. I intend to connect my findings with the recently published report Degrees of Freedom, Expanding College Opportunities for Currently and Formerly Incarcerated Californians, by Berkeley and Stanford Law.

Ellen Lin, Social & Cultural Studies (SCS)
That's Inappropriate: The Discourse of Discipline and Punishment in the Elementary Classroom

A common admonishment heard and exchanged among young US school children and their socializing supervisors is the classification of "inappropriateness." Inappropriateness rarely seems, and in my experience as a public elementary school teacher—never was, attached to a formal school lesson or allowed an examination of its meaning. Yet due to its power and efficiency of influence, it is a pervasive regulator of physical behavior as well as of intellectual thought and emotional feeling. The silencing discourse of inappropriateness, then, vacuums space for critique, and strikes those who challenge it with choking embarrassment, verdicts of absurdity, or labels of extremism and irrationality. Though Michel Foucault's notions of power are not commonly a centerpiece of elementary teacher education programs, this author argues that consideration of texts such as Discipline and Punish (1975) have critical potential for understanding the concrete forms of school participation in the discourses of dominance enacted on a daily basis.

Session III.G, Paper Presentations, 4635 Tolman

Fithawee Tzeggai, Contemporary History of Urban School Reform
Desegregation, Racial Equity, and Urban School Reform: Legacies of Racial Contestation in Present Day Chicago

The Chicago Public Schools district is widely recognized as a pioneer of new approaches to urban school reform, approaches that have been widely adopted at all levels of government. The rapid transformation of

public education in Chicago is commonly associated with two parallel reform movements--standards-based accountability and school choice--each of which came to dominate school reform debates by the 1990's. While many historical accounts of contemporary developments in urban school reform start with a fundamental shift in the terms of debate during the 1980's, this paper contends that contemporary school reform has older roots. Many scholars treat accountability and choice as a departure from equity-oriented policy reforms of the post-Civil Rights Movement era, but I will draw on the history of desegregation and school reform in Chicago to argue that early efforts to address racial inequality prefigured the contemporary promotion of school choice and school improvement.

Steven Czifra, Ethnic Studies
Education in California's Prisons; Two California Prisoners Resistance in Writing

Rafael Casique is currently imprisoned indefinitely in the Pelican Bay Security Housing Unit, a solitary confinement prison in California designed to hold prisoners incommunicado for their entire lifetimes. The conditions that have been institutionalized in the Pelican Bay SHU did not exist anywhere until that prison opened in 1989, though prisoners like George Jackson, and other politically active prisoners in the 1960s and 1970s experienced those conditions on an experimental ad-hoc basis forty years ago. In my paper I explore the writings of Casique and Jackson, who have, through self-directed education, been able to articulate their inner lives to people who matter to them, and to whom they matter, thereby fostering connections that forestall the dehumanization of imprisonment and isolation. I intend to connect my findings with the recently published report Degrees of Freedom, Expanding College Opportunities for Currently and Formerly Incarcerated Californians, by Berkeley and Stanford Law.

Session III.H, Group Presentation, 5527 Tolman

G Reyes, Karen Salazar, J.R. Arimboanga, & Josette Neal de Stanton, Teacher Development
It's NOT Whatever: Dangerous Culturally Responsive Teacher Development Because Our Lives Depend On It

Ladson Billings (1999) argues for a "dangerous" teacher development that critiques systemic inequities as well as guides teaching practices to reform these issues, rather than accepting existing conditions as "it's whatever." This study examines the nature of teacher development in an urban high school that has social justice goals for its teachers to understand forces creating systemic inequities while transforming practices to contribute to teacher self-actualization and eliminating inequities. This critical participant qualitative research focuses on how teacher leaders and new teachers of color within each of the departments represented are facilitated to make sense of and develop their practices in conjunction with these goals. Rather than only naming WHAT teachers should know and do, the significance of this research for teacher development is that it will illuminate the structural and cultural conditions of HOW a school committed to social justice attempts to guide and support teachers towards these goals.

Session IV – 4:25-6:00

Session IV, Poster Session, Education-Psychology Library

Andrew Bartnof, Human Development
Towards a Correlation Between Educators' Backgrounds and Linguistic Policies

This study regards teachers' ethical stances on the role of dialects in their classrooms.

Giovanni Fonseca & Cristina Frade, Education: Agricultural Extension
Agricultural extension: an encounter of different realities in northern Minas Gerais, Brazil

Agricultural extension is an educational process involving farmers and extension workers, or extensionists, aiming at the improvement of rural life. This study investigates how agricultural extension changes the lives of small farmers in Brazil. For eight months, I observed the work of five extensionists at a public agency in a project that involved 260 families, totaling more than one thousand individuals. My hypothesis was that there

would be limited change because the interaction between farmers and extensionists did not involve mutual learning. The extensionists' role is to conventionally "deliver solutions", which often --inadvertently-- results in a

neglect of the farmers' experience. This hypothesis was supported by my findings. A typical point of tension was the farmers' decision-making processes, which seemed incomprehensible to the extensionists. It is difficult for extensionists to be truly effective without an understanding of the logic of small farmers.

Rose Cartwright, Cognition & Development (CD)
Adolescents' Coordination of Social-Cognitive Domains in Social Inclusion and Exclusion Judgments

Adolescents (ages 13 to 18) evaluated hypothetical scenarios involving exclusion of same-aged peers with Autism Spectrum Disorder (ASD) behavioral features in a variety of contexts (science project group selection, a game of soccer, playing a video game with a neighbor, and school policy of exclusion from mainstream classes). Findings showed that a majority of individuals judged exclusion as wrong across all four scenarios, but participants' levels of coordination of social-cognitive domains varied by age.

Hannah Gogel, Policy, Organization, Measurement, & Evaluation (POME)
Using Bayesian Knowledge Tracing to Investigate MOOC Forum Use

Although technology has been shown to have the ability to foster social interactions in educational settings, a major obstacle preventing students from getting involved in online learning is the concern that it can be a socially isolating experience. Many online educational environments, including Massive Open Online Courses (MOOCs), have forums where students can and are often required to interact with other learners. Using data from Stat2.1:Introduction to Statistics, an open online course offered by BerkeleyX, we used Bayesian Knowledge Tracing (BKT) to estimate the probability that each student understood the material throughout the course. Using these probabilities, we are able to investigate at what probability of knowledge MOOC users are visiting the forum and when forum visits are most useful. Based upon conclusions from this research we may have increased evidence with which to better inform online course designers when to suggest forum visits to users.

Robin Irey, Special Education
Textual Morphological Decomposition Assessment

Relative to other areas of literacy, there are few morphological awareness assessment tools. Those that exist assess oral morphology or morphological spelling ability. However, the basic premise of understanding textual morphology assumes conscious awareness of morphemes. The only existing tool that measures this construct was designed by Apel, Diehm & Apel in 2013. Their tool measured K-2 students' ability to recognize printed affixes. Extending this, I crafted a tool utilizing item-response theory, which yields a more complete gauge of students' ability to decompose morphologically complex words. This instrument provides a nuanced measure of students' ability to decompose printed morphologically complex words, a foundational skill of morphological awareness.

Yinglian Jin,
Science Teachers' Utilization and Reconstruction of Teaching Resources in Junior High School in Shanghai

The current study investigates teachers' scheme of utilization of resources by using a mixed-method approach. The quantitative survey included 106 Shanghai teachers, examining their frequent utilization of usual resources. The case study, probes the way the teacher using resources. Quantitative results displays prescribed textbooks is the main resources teachers use. The qualitative results further shows teachers tend to reduce the complexity of the learning tasks designed by textbook.

Charissa Tansomboon, Human Development
Impact of Knowledge Integration and Simulated Teacher Guidance on Inquiry Science Learning

Most students need guidance to fully benefit from inquiry science instruction, yet teachers rarely have time to individually guide all students. This study contrasts two forms of automated guidance for student explanations of climate change based on scores generated using natural language processing tools. We randomly assigned students to receive either knowledge integration or simulated teacher guidance within a web-based inquiry unit. KI was more effective than ST guidance for helping students improve their explanation. Students who integrated a normative or non-normative idea based on guidance made significantly greater gains pre to posttest than students who made superficial changes. These findings suggest that automated, KI guidance can be used to strengthen explanations and free teachers to work directly with students.

Frank Worrell, School Psychology
Validating ATI-TA Scores in Samples from 10 Countries

In this poster, we report on the psychometric properties of scores on the time attitude subscales of the Adolescent Time Inventory (ATI-TA; Mello & Worrell, 2007) in 10 countries. The ATI-TA consists six five-item subscales named Past Positive, Past Negative, Present Positive, Present Negative, Future Positive, and Future Negative. We examined the structural validity of ATI-TA scores in Albania, China, Germany, Italy, Iran, New Zealand, Nigeria, and the United States, and internal consistency of the scores in the eight aforementioned countries as well as in Peru and Sweden. Results indicate generally strong support for the scores. However, in Albania, Italy, and Nigeria, Future Negative scores had low reliability, raising questions about the intricacies of translating this construct across cultures.

Bryant Ho & Jenny Tang, Medical Education
Two Sticks, One Flame: Simulation-Based Learning and Problem-Based Learning About Error Disclosure in Interprofessional Teams in Project IGNITE

A lack of adequate communication and collaboration amongst interprofessional health care team members results not only in increased medical errors but also in ineffective disclosures of those errors. These issues have significant, negative impacts on healthcare safety and quality and must be addressed through increased interprofessional collaboration to ensure ethical and patient-centered care. The UCB-UCSF Joint Medical Program (JMP), a five-year MD/MS dual degree program, has partnered with Samuel Merritt University (SMU) to educate students from MD, RN, FNP, and CRNA professional schools on the importance of interprofessional communication and teamwork during error disclosure to patients and families. This partnership is known as the Interprofessional Group Near-peer Integrated Team Education project (IGNITE), and its content is based on an interprofessional curriculum toolkit initially developed at the University of Washington Center for Health Sciences Interprofessional Education, Research and Practice.

Sarah Menanix, Anthony Cerna, & Elise Levin-Guracar, Education in Math, Science, and Technology (EMST)
Teaching for a Growth Mindset: How Contexts and Professional Identity Shift Decision-Making

What happens to pedagogy when a teacher's goals of supporting students' productive dispositions toward learning collide with her professional identity as a successful teacher whose students perform well on standardized tests? This mixed-methods case study shows how context shapes one teacher's identity and decision-making, such that she seems to be two drastically different teachers in two different instructional contexts. The different contexts offered the teacher identity resources about what was valued as good teaching, which led to distinct pedagogical decisions that aligned with the salient aspects of her professional identity in each context. Despite her commitment to growth mindset instruction in both contexts, this teacher implemented pedagogical moves that contributed to distinctly different opportunities for students to engage with rich mathematics and develop productive mathematical self-concepts. Only when students were given opportunities to experience a growth mindset did their mindsets, engagement, and persistence toward learning shift in productive ways.

Elizabeth Zumbe, Mahua Baral, & Erica Messner, Policy, Organization, Measurement, & Evaluation (POME)
Design Development in Action - Supporting Common Core through a District/University Partnership

Across California, education researchers and districts share a common challenge: ensuring academically rigorous instruction that engages students in the learning process to meet the standards of the Common Core. To tackle this challenge, Hayward Unified School District and researchers from UC Berkeley have come together in a partnership that bridges the practical needs of teachers and leaders in the district with a research-based design process to figure out new ways of improving teacher learning and instruction. This presentation summarizes the work of the first year of the partnership with an overview of the design challenge, the organizational infrastructure create to enable collaboration, and the concrete steps that have been taken at a selection of pilot schools to engage teachers in professional learning about designing academically engaging lessons.

Acknowledgements

And thank you to all for presenting and attending, keeping this research tradition alive and well at the GSE. See you next year!