PROGRAMS ORGANIZED CHRONologically

Thursday, April 3: **12:00pm - 1:30pm**
Roundtable Session 2: Emerging Themes in Educational Change: Shifting Roles, New Technologies, and Complexity
Building/Room: Convention Center, Terrace Level, Terrace IV
Including:
- **Paper:** “Quantifying the Qualitative to Advance Reform: Using Complexity Theory to Conceptualize Educational Change” by Patrick J. McQuillan (Boston College)

**Paper Abstract:** Drawing on the work of Leadership Academy with early career, urban school principals from charter, district and Catholic schools, this paper employs the complex adaptive system model to understand the experience of these urban school leaders--conceptualizing their work in both qualitative and quantitative way--as a means to gain insight into effective educational change strategies.

Thursday, April 3: **2:15pm - 3:45pm**
Paper Session: Advances in Item Response Theory Estimation
Building/Room: Convention Center, 100 Level, 117
Including:
- **Discussant:** Alexander Weissman (Law School Admission Council)
- **Paper:** “Log-Linear Item Response Theory Model for Person-by-Item Interactions” by Zhushan Mandy Li (Boston College)

**Paper Abstract:** In this paper, we propose a log-linear item response theory (IRT) model with person-by-item interactions, and use the obtained log-linear model for detecting differential item functioning (DIF). The model is developed by incorporating item properties and person properties and the person-to-item interactions in an IRT model, and deriving the manifest probability in the form of a log-linear model. Pseudolikelihood estimation is used to fit the model and pseudolikelihood tests are proposed for testing the significance of the interaction term (the DIF effect). The effectiveness of the developed model and the pseudolikelihood tests is demonstrated by simulation studies and the application to real data.

Thursday, April 3: **2:15pm - 3:45pm**
Roundtable Session 4: Uses of Technology to Facilitate Student Learning
Building/Room: Convention Center, Terrace Level, Terrace IV
Including:
- **Paper:** “iPads and Social Media: New Pathways to Promote Student Engagement Within a Summer Bridge Program” by Michelle Brown-Kerrigan (Boston College), Adam Gismondi (Boston College), Derek Hottell (Boston College), Scott Radimer (Boston College), Scott Radimer (Boston College), Ana M. Martinez-Aleman (Boston College), Heather T. Rowan-Kenyon (Boston College), Mandy Savitz-Romer (HGSE)

**Paper Abstract:** This case study examines how iPads and Facebook are leveraged to provide up-to-date, alternative pathways to promote undergraduate engagement for first generation, low SES, and/or students of color enrolled in a summer “bridge” program.
Thursday, April 3: **6:15pm-7:45pm**  
**Business Meeting:** Classroom Management SIG Business Meeting by Marilyn Cochran-Smith (Boston College)  
**Building/Room:** Convention Center, 100 Level, 102A  
**Keynote Speaker:** Marilyn Cochran-Smith (Boston College)  
**Participant:** Walter Doyle (The University of Arizona)  
**Chair:** Candace M. Schlein (University of Missouri – Kansas City)  
**Abstract:** Please join your colleagues for the annual business meeting of the Classroom Management Special Interest Group. Catch up on the business aspects of the SIG. The business meeting will feature a keynote by Marilyn Cochran-Smith and a response by Walter Doyle. We are searching for graduate and junior faculty members who are in need of national service for a number of roles in our SIG. Thus, please attend the meeting if you are interested in volunteering for these national service roles. Appetizers and spirits will be served.

Thursday, April 3: **6:30pm-8:30pm**  
**Location:** The Pyramid Club at 1735 Market Street, Philadelphia, Pa.  
$15 per person; refreshments will be served; cash bar  
*RSVP to Katie Cintolo via email kathryn.cintolo@bc.edu to be included on the guest list.*  
**Lecture:** The Deans Series in Philadelphia: Preparing Youth to Excel in the 21st Century  
**Description:** Join Maureen Kenny, Dean of the Boston College Lynch School of Education, for a dynamic presentation focused on enabling our children, grandchildren, and all youth to thrive. Focusing on the whole person and recognizing the interconnectedness of academic, social and emotional development, parents—and professionals who work with our youth—will learn about strengths-based approaches that help our young people to successfully navigate our ever-changing world.

Friday, April 4: **8:00am - 9:30am**  
**Governance Session:** AERA Committee on Scholars and Advocates for Gender Equity in Education: Open Meeting and Breakfast  
**Building/Room:** Marriott, Third Level, Independence II  
**Including:**  
- **Discussant:** Kimberly A. Scott (Arizona State University)  
- **Paper:** “Questions of Gender (In)Equity, Education, and Trayvon Martin” by Anna Everett (University of California – Santa Barbara), Shaun R. Harper (University of Pennsylvania), Ana M. Martinez-Aleman (Boston College)

Friday, April 4: **8:15am - 10:15am**  
**Symposium:** Conceptualizing Educational Change Through the Lens of the Complex Adaptive System: An Exploration in Quantifying the Metaphor  
**Chair:** Patrick J. McQuillan (Boston College)  
**Building/Room:** Marriott, Fourth Level, 414  
**Including:**  
- **Discussants:** Brian Robert Beabout (The University of New Orleans) and Donald L. Gilstrap (Wichita State University)  
- **Paper:** “Systems Change: How and When Does It Occur” by Patrick J. McQuillan (Boston College)  
- **Paper:** “Coming to See the World Differently: A Three-Sector Experience” by Valerie Spencer  
- **Paper:** “Distributing Leadership, Creating Networks, Promoting Relationship Trust” by Kavita Venkatesh (Boston College)
Friday, April 4: 8:15am - 10:15am (CONTINUED)

- **Paper:** “Balancing a Complex System: Transformative Change in a Catholic School” by Brad Kershner (Boston College)
- **Paper:** “At the Brink: The Capacities and Capabilities of a Statewide Charter School System” by Eugene Gary Kowch (University of Calgary) and Dianne Gareluk (University of Calgary)

**Symposium Abstract:** This session utilizes the “complex adaptive system” (CAS) model to conceptualize educational change—viewing schools as systems of interacting elements that can enact CAS features to learn and adapt. In so doing, we aim to go beyond the metaphorical value of this heuristic. Specifically, we first present a qualitative overview of CAS elements which are quantified through a rubric we designed. We then examine three case studies, each highlighting aspects of the model: the role of disequilibrium in promoting change; networking school personnel to distribute control; and balancing system features to remain on the “edge of chaos.” Session attendees will have the CAS rubric and can apply that to a reform they are familiar with.

**Paper Abstract:**

**Objectives & Theoretical Framework:** This introductory paper outlines features of complexity theory and complex adaptive systems (CAS) (Lewin, 1999), the heuristic focused on interactions among varied system elements that frames our analyses of LA principals and their schools. CAS features highlighted in this paper link to other symposium papers: generating disequilibrium among principals through three-sector interactions; distributing control throughout a system to more effectively network system interactions; and a discussion of the need to stay on the “edge of chaos”—balancing varied system features—while implementing reform. Given the nature of these changes, this paper seeks to understand education and schooling systemically, assessing what happens on and between multiple system levels by blending qualitative with quantitative points of view. This first paper initiates that exploration.

**Methods & Data Sources:** In setting a foundation for the following three case studies, I explore the literature on complex adaptive systems to generate an understanding of key elements of this analytic phenomenon—disequilibrium, distributing system control, and balancing on the “edge of chaos.” In turn, these foci frame how I conceptualize the CAS and its related dimensions and set a framework for understanding how I quantify these qualitative conceptions.

**Conclusions:** Certain features of the complex adaptive system seem compelling for understanding school leadership and educational transformation, “disequilibrium” being one that often plays a role in successful change (Wheatley, 1999). For change to occur, something must perturb a system. But to act, system elements must possess autonomy. Control and authority must therefore be distributed so system elements can interact in new and perhaps more adaptive ways. And third, systems change often involves “balance.” Often described as the “edge of chaos,” complex systems are neither overwhelmed with change nor stuck in stagnant repetition. As Davis and Sumara (2001) wrote: “All living forms exist far from equilibrium. . . . [Their] actions are neither locked in repetitive action nor subject to wild fluctuations” (p. 93).

**Scholarly Significance:** The value of the CAS heuristic becomes apparent when considering the history of educational reform, as many reforms have ignored the multiple, interrelated and interacting elements of schools, conceptualizing the educational system as isolated and discrete structures, therefore assuming complex phenomena can be understood by analyzing constituent parts, when the sum of the whole may be greater, and more complex, than that of the individual parts. Consequently, reforms often modify one or two elements in a system apart from related elements, assuming these “reforms” will produce the intended outcome through a linear, cause-and-effect relationship. In contrast, complexity theory posits that, rather than assuming predictable interactions among system elements, one should identify interrelationships among a cross-section of system features to analyze emerging patterns and gain a broad understanding of the dynamics of change. Moreover, quantifying the understandings
Friday, April 4: 8:15am - 10:15am (CONTINUED)
generated by this analysis offers a means to:
• Assess reform over time;
• Highlight drivers and impediments to change;
• Create the basis for comparative analysis among reform endeavors;
• Generate dialogue among those enacting reform.

Friday, April 4: 8:15am - 10:15am
Symposium: Professional Capital: A New Agenda to Transform Teaching in Every School
Building/Room: Convention Center, 100 Level, 114
Including:
• Chair: Andrew Hargreaves (Boston College)
• Discussants: Jal David Mehta (Harvard University)
• Paper: “Professional Capital: A New Framework for Understanding Teacher Quality and Educational Change” by Michael Fullan (OISE/University of Toronto) and Andrew Hargreaves (Boston College)

Symposium Abstract: A theory of Professional Capital in education has recently been developed to advance a new way to think about and promote the large-scale transformation of teaching in educational systems in the US and internationally. This session brings together leading thinkers and researchers to provide empirical substantiation for the concept of Professional Capital, as well as two young scholars who have applied the concept of Professional Capital to understand how the teaching profession can be revitalized in emerging economies around the world and in rural and isolated schools in the US.

Paper Abstract: Objectives and Theoretical Framework: This opening paper introduces the idea of professional capital as a framework for development and action to dramatically improve the teaching profession as a force for system transformation. The research literature points to the power of human capital of teachers for teacher quality and improved student achievement (Don et.al 2008; Odden, 2011). Human capital in this influential policy model is understood as individual teacher characteristics and performances that can be correlated with measured student achievement. However, teachers’ social capital, understood as collective relationships and interactions among teachers, has a higher impact on student achievement than individual human capital. The idea of professional capital notes that human and social capital, in interaction, have important implications for teacher quality. It also adds a third form of capital – decisional capital. Decisional capital is about the development and refinement over time of the quality of teachers’ judgments, capabilities and commitments, as it is practiced, challenged and stretched.

In summary, teacher quality cannot be reduced to individual human capital but must also encompass attention to social and decisional capital by fostering and creating the conditions for professional collaboration and high trust within and across schools; and by retaining effective teachers beyond three or four years so that with effective practice and mentoring, they will stretch their expertise to create a return on people’s investment of money, time and mentoring.

Data Sources: Research by Odden (2011), and Leana (2011) has established the critical importance of human and social capital respectively, but until now no one has developed a framework for integrating these ideas into a more complete approach that also includes the power of professional judgment. Strong professional capital is associated with high educational performance in jurisdictions like Finland, Singapore, Ontario and Alberta (Hargreaves and Fullan 2012; Hargreaves and Shirley 2012; McKinsey & Company, 2007; Mourshed, Chijioke, & Barber, 2010; Tucker, 2011). In these cases, well-qualified teachers are stringently prepared in university-based programs of teacher education combined with sustained practical experience that includes inquiry and reflection. They collaborate together in multiple
ways to create, apply, and inquire into their practice rather than merely delivering external policies. They have strong teacher unions and professional associations who work closely with governments on improving teaching and learning and the conditions that support these outcomes. They also retain and sustain teachers through flexible career paths and supportive working conditions that enable them to develop their own strengths as they move forward through teacher leadership over time.

**Scholarly and Practical Significance:** Professional capital is an intellectual and strategic framework to articulate existing research in a new way and to articulate fresh research inquiries that contrast with the prevailing business capital approach to educational reform in which teacher quality is only a matter of individual skill. This paper is a call to organize our professional, strategic and political work around the generational payoffs of investing in, developing and circulating professional capital. In so doing we will begin to see dramatic payoffs in the performance of the system.

**Friday, April 4: 10:35am-12:05pm**

**Poster Session:** Predictors of Omitted Responses on the 2009 NAEP Mathematics Assessment

**Building/Room:** Convention Center, 200 Level, Hall E

**Authors:** Nathaniel J. S. Brown (Boston College), Shenghai Dai (Indiana University – Bloomington), Dubravka Svetina

**Abstract:** Omitted responses, when a student skips over an item, are not ignorable under 2P and 3P IRT models, and must be filled in with best guesses. However, very little empirical evidence exists regarding why students omit responses. Hierarchical multiple regressions were conducted to identify predictors of omitted responses on the 2009 NAEP Mathematics Assessment, using variables from the extensive student, teacher, and school questionnaires and item descriptions. Nearly all predictors, including student proficiency and item difficulty, did not explain substantial variance, with the exception of item format. We hypothesize that omitted responses represent differential item functioning, in which students with sufficient proficiency are unable to respond to certain items due to unfamiliarity resulting from lack of curricular coverage.

**Friday, April 4: 10:35am - 12:05pm**

**Roundtable Session 7:** First-Generation College Students: Perspectives and Processes

**Chair:** Ana M. Martinez-Aleman (Boston College)

**Building/Room:** Convention Center, Terrace Level, Terrace IV

**Friday, April 4: 10:35am - 12:05pm**

**Roundtable Session 7:** Select Topics in Middle School Science Education

**Building/Room:** Convention Center, Terrace Level, Terrace IV

**Paper:** “Middle School Students’ Epistemic Ideas of Claim, Data, Evidence, and Justification When Reading Arguments” by Suna Ryu (University of California – Berkeley), Mathew A. Cannady (University of California – Berkeley), Katherine L. McNeill (Boston College), P. David Pearson (University of California – Berkeley)

**Paper Abstract:** Epistemic understanding of science is critical to promote science literacy. In this study, we document students’ epistemic ideas when they engage in reading text-based versus data-inscription arguments by conducting clinical cognitive interviews. We iteratively analyzed student interviews based on previous theoretical work and grounded approach. We then incorporated the findings from interviews with the result of a large-scale assessment using same reading materials. The findings suggest that middle-school students are able to apply epistemic criteria to determine “what counts” when reading arguments. However, our findings also suggest that science instruction should go beyond merely
Friday, April 4: **10:35am - 12:05pm (CONTINUED)**

focusing on content understanding, and include genuine scientific texts and data inscriptions, in which multiple interpretations and explanations are salient and available for students.

**Friday, April 4: 12:25pm-1:55pm**

**Governance Session:** AERA Past Presidents Luncheon: Invitation Only

**Building/Room:** Marriott, Third Level, Independence II

**Chair:** William G. Tierney (University of Southern California)

**Participants:** Felice J. Levine (American Educational Research Association); Ametha F. Ball (Stanford University); David C. Berliner (Arizona State University); David R. Krathwohl (Syracuse University); Lauren B. Resnick (University of Pittsburgh); Andrew C. Porter (University of Pennsylvania); Philip W. Jackson (University of Chicago); Gene V. Glass (University of Colorado – Boulder); John I. Goodlad (institute for Educational Inquiry); W. James Popham (University of California – Los Angeles); Ann Lieberman (Stanford University); Richard J. Shavelson (SK Partners & Stanford University); Patrick Suppes (Stanford University); Maxine Green (Teachers College, Columbia); Robert L. Linn (University of Colorado – Boulder); Lorrie A. Shepard (University of Colorado – Boulder); Penelope L. Peterson (Northwestern University); Hilda Borko (Stanford University); Alan H. Schoenfeld (University of California – Berkeley); Eva L. Baker (University of California – Los Angeles); James A. Banks (University of Washington – Seattle); Richard C. Anderson (University of Illinois at Urbana-Champaign); Catherine Snow (Harvard University); Larry Cuban (Stanford University); Lorraine M. McDonnell (University of California – Santa Barbara); Marilyn Cochran-Smith (Boston College); Michael Scriven (Claremont Graduate University); Gloria J. Ladson-Billings (University of Wisconsin – Madison); Carol D. Lee (Northwestern University); William F. Tate (Washington University in St. Louis); Kris D. Gutierrez (University of Colorado – Boulder); Frank H. Farley (Temple University); William W. Cooley (University of Pittsburgh); Jane A. Schiulman (Stanford University); Linda Darling-Hammond (Stanford University)

**Friday, April 4: 12:25pm-1:55pm**

**Presidential Invited Session:** Reactions from the World of Evaluation Methodology

**Building/Room:** Convention Center, 200 Level, 201A

**Chair:** Michael J. Feur (The George Washington University)

**Discussants:** Suzanne M. Wilson (University of Connecticut) and Emerson J. Elliott (National Council for the Accreditation of Teachers)

**Including:**

- “Key Findings From the National Academy of Education (NAEd) Report” by Robert E. Floden (Michigan State University)
- “Reactions from the World of Teacher Preparation” by Rick Ginsberg (The University of Kansas)
- “Reactions from the World of Policy” by Jeanne M. Burns (Louisiana Board of Regents), Martha J. Kanter (De Ana College), Steven K. Wojcikiewicz (Western Oregon University)
- “Reactions From the World of Evaluation methodology” by Henry L. Braun (Boston College)

**Abstract:** The pressure is on: schools of education and other teacher preparation organizations are facing increased challenges to produce evidence that their programs are producing employable and effective new educators. Although research evidence increasingly demonstrates that teaching matters, less is known about the nuances of where and how teachers acquire the requisite skills and knowledge to become competent classroom professionals; even less is known about the direct and indirect effects, and the potential value, of alternative models for evaluating the quality of those preservice programs. Providing useful, reliable, and valid information about the quality of teacher preparation programs,
especially in a fragmented system such as ours, is a complex challenge; not surprisingly, there are many existing mechanisms and metrics of evaluation, which serve different purposes and users of the information. This session will build on the recent report of the National Academy of Education – “Evaluation of Teacher Preparation Programs: Purposes, Methods, and Policy Options” – and engage a group of policy makers, educators, and teacher educators in a discussion of key issues necessary for a sustained research agenda. The principal goal of the session is to explore the possibilities for genuine innovation in the design and interpretation of evaluations that can strengthen teacher preparation.

Friday, April 4: 2:15pm - 3:45pm
Presidential Invited Session: Reframing Immigrants and Immigration: The Promise and Possibility
*Please note, AERA will be live streaming this session.
Building/Room: Convention Center, 200 Level, 201A
Chair: Kris D. Gutierrez (University of Colorado – Boulder)
Discussant: Guadalupe Valdes (Stanford University)
Including:
- “A ‘Permanently Unfinished’ Society: The Transformation of Immigrant America” by Ruben Rumbaut (University of California – Irvine)
- “Mexican Americans and Intergenerational Progress” by Vilma Ortiz (University of California – Los Angeles)
- “Learning From Newcomer Youth: Versions of Intelligence” by Lisa (Leigh) Patel (Boston College)
- “The Transcultural Competencies of Immigrant Youth: Lessons for a Globalized Future” by Marjorie Faulstich Orellana (University of California – Los Angeles)

Friday, April 4: 2:15pm-3:45pm
Invited Session: Research on Teacher Preparation: Charting the Landscape of a Sprawling Field
Building/Room: Convention Center, 100 Level, 103A
Including:
- Chair: A. Lin Goodwin (Teachers College, Columbia University)
- Discussant: Deborah Loewenberg Ball (University of Michigan – Ann Arbor)
- Presenters: Marilyn Cochran-Smith (Boston College), Ana Maria Villegas (Montclair State University), Laura Carolina Chavez-Moreno (University of Wisconsin- Madison), Tammy Mills (Montclair State University), Rebecca H. Stern (Boston College), Linda Whalen Abrams (Montclair State University)

Abstract: Research on teacher preparation is an emerging, complex, and multi-faceted field, influenced by competing ideas about the purposes of research and of education. Guided by a theoretical framework that conceptualizes research on teacher preparation as situated social practice, this session draws on the results of a major initiative to chart the contemporary landscape of research on teacher preparation. The session features description and critique of three research programs: (1) research on teacher preparation accountability, effectiveness, and program/pathway policies, (2) research on preparing teacher candidates in keeping with current conceptions of how people learn and what they need to know in a knowledge society, and (3) research on preparing a teaching force for a diverse population and to enhance school/social equality.
Friday, April 4: **2:15pm - 3:45pm**

**Poster Session 6:** Learning and Motivation in Social and Cultural Contexts Poster Session 1  
**Building/Room:** Convention Center, 200 Level, Hall E  
**Including:** “Parental Beliefs About Math and Verbal Ability Predict Self-Reported Behavior: The Role of Child Competence” by Katherine Marie Muenks (University of Maryland) and David Miele (Boston College)  
**Paper Abstract:** Two studies examined whether the relationship between parents’ beliefs about the fixedness of their children’s abilities and their self-reported parenting strategies in math and reading is moderated by perceptions of their children’s competence in these domains. In general, the more that parents believed that their children’s math or reading abilities were fixed, the more likely they were to use performance-oriented strategies and the less likely they were to use mastery-oriented strategies when helping their children to complete a challenging math or reading task. However, parents’ use of performance- and mastery-oriented strategies also depended on perceptions of their children’s competence in math or reading, but only for the parents most likely to believe that their children’s abilities were fixed.

Friday, April 4: **4:05pm - 5:35pm**

**Paper Session:** Detecting and Explaining Differential Item Functioning  
**Building/Room:** Convention Center, 100 Level, 111B  
**Discussant:** Andrea Gotzmann (Medical Council of Canada)  
**Paper:** “A Power Formula for the Mantel-Haenszel Test for Differential Item Functioning” by Zhushan Mandy Li (Boston College)  
**Paper Abstract:** In this paper we derive a power formula of the Mantel-Haenszel (MH) test for the differential item functioning (DIF). The formula describes the behavior of the power when the number of items is large so that the measured latent trait can be considered as the matching variable in the MH test. As shown in the derived formula, the asymptotic power is related to the sample size, effect size of DIF, the item response function (IRF) and the distribution of the latent trait of the reference and the focal groups. It also gives analytical explanations of the behaviors of the MH test as observed in previous simulation studies. The formula for sample size calculation is also derived.

Friday, April 4: **4:05pm - 6:05pm**

**Paper Session:** Guerilla Science: Engaging the Public Through Interactive Science Displays  
**Symposium:** Distributing, Learning, and Making STEM Arguments in Public Media  
**Building/Room:** Marriott, Fourth Level, Franklin 7  
**Discussant:** Michael Barnett (Boston College)  
**Authors:** Amie Patchem (Boston College), Dennis J. DeBay (Boston College), Connor Rooney (Boston College), Michael Barnett (Boston College)  
**Paper Abstract:** In recent years there has been a rapid increase in science occurring in public or accessible spaces in what is being called Public Science (Arcand & Watzke, 2011). These science outreach projects or events have occurred in outdoor venues and publicly accessible areas such as public parks, train stations, and other locations where there could be large numbers of people. These initiatives are designed to reach new audiences such as “casual visitors” (Crettaz von Roten, 2011) who are not actively seeking out a science experience (Norsted, 2010). Unlike many of these previous projects, which rely on static exhibits, our work seeks to bring an interactive science experience to public spaces. Our work is bringing together the currently disparate fields of informal museum science education, community science, and public communication of science through the use of novel technologies. To that end, this investigation involves a new approach for engaging the public to interact with science data through the placement of air quality sensors in citizen’s homes and at schools throughout the Boston area.
metropolitan area. High school students collect, analyze, and create visualizations of the data. Their final products are then presented on a touchfoil (see figure) placed in restaurants, bookstores and other public locations. A touchfoil is a thin plastic film technology installed safely behind a glass window or display case that allows people to engage the screen by touching it through the window (think of a window turned into an iPad).

Our research draws heavily upon the recent work of Bevan and Michalchik (2012a) in that the goal of this project is to examine how and in what ways citizens interact with and learn from their participation in this guerilla science project. To that end our driving questions are:
1. What do citizens learn about the various pollutants that constitute air pollution?
2. Do citizens take what they learn and share it with others and do their interactions lead to actionable steps to improve the quality of air in their area?
3. What were the primary reasons why a citizen participated in the project and why did they stop and interact with the touchfoil?

Our preliminary results reveal that although citizens are very interested in the components of air pollution, for many, understanding of air quality has been “black boxed” in that they are told that that the daily air quality is “good” or “bad” but do not really understand what that means. Learners typically spend a short period of time interacting with the touchfoil, but over time they tend to revisit the touchfoil to explore a different aspect of the project. To that end, the foil becomes a technological “watercolor” where people interact with the foil and discuss the meanings of the data and becomes a mechanism for further dissemination as users report telling their friends to go see the “foil about air.” The conference paper will expand upon these results and discuss in more detail what users learned from their interactions and what knowledge they shared with others.

Friday, April 4: 4:05pm - 5:35pm
Paper Session: Instrument Development and Validation
Building/Room: Convention Center, 100 Level, 112A
Including:
- **Discussant:** Matthew Newman (Pearson)
- **Paper:** “Expeditionary Learning Implementation Review: Instrument Development” by Sue Leibowitz (University of Massachusetts), Larry H. Ludlow (Boston College), Thomas S. Van Winkle

**Paper Abstract:** Expeditionary Learning (EL) and UMass Donahue Institute (UMDI) worked together to develop a new instrument to assess the extent to which EL core practices are implemented. The instrument was constructed using the principles of the Rasch rating scale measurement model. Three pilot tests were conducted. Full-scale implementation and validation data were collected from 147 schools across the United States. Factor analyses indicate one dominant factor. The items themselves are internally consistent within each of the separate dimensions and overall. The Rasch model rating scale analysis of the data supports the hypothesized conceptualization and development of a meaningful continuum for both schools regarding their overall level of implementation of the EL practices, and the degree of difficulty in implementing the practices.
Friday, April 4: 6:15pm - 8:15pm

Business Meeting: Educational Change SIG Business Meeting

Building/Room: Convention Center, 100 Level, 115B

Session Participants:
- Chair: Dennis Lynn Shirley (Boston College)
- Presenter: Helen Janc Malone (Institute for Educational Leadership)
- Presenter: Michael Fullan (OISE/University of Toronto)
- Presenter: Andrew Hargreaves (Boston College)
- Presenter: Ann Lieberman (Stanford University)
- Presenter: Michael Fullan (OISE/University of Toronto)
- Presenter: Louise Stoll (Institute of Education - London)
- Presenter: Pak Tee Ng (National Institute of Education – Nanyang Technological University)

Abstract: Presentation of the Book "Leading Educational Change: Global Issues, Challenges, and Lessons on Whole-System Reform"

Saturday, April 5: 8:15am-10:15am

Invited Session: Does Teacher Education Need Research? Does Research Need Teacher Education?

Building/Room: Convention Center, 100 Level, 102A

Chair: Ian Menter (University of Oxford)
Discussant: Maria Teresa Tattoo (Michigan State University)
Participant: Alis Oancea (University of Oxford)

Including:
- “Research and teacher Education – The BERA-RSA Inquiry: Background:” by John Furlong (The University of Oxford)
- “Research and teacher Education: The Interim Report” by Louise Bamfield (Royal Society for the encouragement of Arts, Manufactures and Commerce), Christopher Winch (Kings College, London), Janet Orchard (University of Bristol), Katherine Burn (University of Oxford), Trevor Mutton (University of Oxford)
- “Implications for Teacher Education and for Research in the United State” by Marilyn Cochran-Smith (Boston College), Robert E. Floden (Michigan State University), Pamela L. Grossman (Stanford University)

Abstract: Two recent publications (BERA/UCET 2012 and Furlong 2013) have demonstrated the links between teacher education and the infrastructure for educational research in the UK; both support Labaree’s (2006) observation that in the US, education as a whole has been and still is intimately bound up with teacher education. Given these links, current policy moves in the UK and the US to undermine the position of university led teacher education are (or should be) a source of considerable concern, not only for university based teacher educators, but for the whole educational research community. It was against this background that the British Education Research Association (BERA) and the Royal Society of Arts (RSA) established the Inquiry into Research and Teacher Education, with the aim of bringing together the international evidence on the contribution of research to all forms of teacher education. This symposium presents key findings from that Inquiry, findings that have major implications for teacher education and for the wider research community.
Saturday, April 5: **8:15am - 10:15am**

**Paper Session:** Issues in Faith-Based Education  
**Building/Room:** Convention Center, 100 Level, 105A  
**Including:**
- **Discussants:** Mary Rose McCarthy (Pace University) and Nathan C. Walker (Teachers College, Columbia University)  
- **Paper:** “Jesuit High Schools and the National Study of Youth and Religion Project” by Michael Thomas O’Connor, Jenny Small (Boston College), Joseph M. O’Keefe (Boston College), Patricia A. Weitzel-O’Neill (Boston College – Roche Center for Catholic Education), Molly Cummings (Boston College)  

**Paper Abstract:** The Jesuit High Schools and the National Study of Youth and Religion Project builds from past research (Smith, with Denton, 2005) to determine the influence of the culture of religious (and specifically Ignatian) formation on the spiritual lives of students at Jesuit high schools, and to identify best practices and other resources for secondary educators to more effectively support students’ spiritual growth and development. This paper proposes a review of the quantitative findings from the pilot study of this 3-year project. The guiding questions for the pilot study are: Do students in U.S. Jesuit schools demonstrate spirituality outcomes similar to diverse students in the NSYR? What impact does attending a Jesuit school have on teens’ religious formation?

Saturday, April 5: **8:15am - 10:15am**

**Paper Session:** Poverty, Early Supports, and Child Outcomes  
**Building/Room:** Convention Center, 100 Level, 102B  
**Including:**
- **Discussants:** Erica Hilary Greenberg (Stanford University) and Valerie Polakow (Eastern Michigan University)  
- **Paper:** “Comparing the Impact of Interventions to Support Children in Poverty” by Erin Sibley (Boston College), Anastasia E. Raczek (Boston College), Eric Dearing (Boston College), Mary Walsh (Boston College)  

**Paper Abstract:** City Connects (CCNX) is a student support intervention that partners with community agencies and institutions to promote the strengths and meet the needs of students in high-poverty urban elementary schools. CCNX is currently in place in 25 high-poverty urban public elementary and middle schools across two Massachusetts districts. In this paper, we compare the impact (in effect sizes) of CCNX on student academic achievement with that for other interventions targeted at improving the life chances of children growing up in poverty. Magnitude of program effects on academic outcomes is compared to reported program cost. Considering the relative costs and benefits of programs may be helpful as multiple educational reforms are proposed to address poverty-related disparities in academic achievement.

Saturday, April 5: **8:15am-9:45am**

**Symposium:** Beyond the Rhetoric: Examining the Economic Rationales and the Evidence-Based Support for Current Reform Strategies  
**Building/ Room:** Convention Center, 100 Level, 120A  
**Chair:** Henry I. Braun (Boston College)  
**Discussant:** David C. Berliner (Arizona State University)  
**Including:**
- “Will Contemporary Reform Strategies Provide the International Economic Progress and Educational Equity Gains They Promise?” by William J. Mathis (University of Colorado – Boulder)
Saturday, April 5: 8:15am-9:45am (CONINUED)

- “Data-Driven Improvement and Accountability” by Andrew Hargreaves (Boston College) and Henry I. Braun (Boston College)
- “The Virtual Evidence Base for Virtual Education and the Implications for Policy” by Jennifer K. Rice (University of Maryland) and Luis Alberto Huerta (Teachers College, Columbia University)

Symposium Abstract: Many current education reforms are touted as having the potential to substantially enhance student achievement at scale and, thereby, contribute to the nation’s economic competitiveness. This symposium will offer a critical examination of the economic rationale, as well as the claims for two salient reforms: (i) data-driven improvement and accountability; and (ii) on-line, virtual schooling. Presenters will demonstrate that, contrary to the assertions of proponents, the evidence-base for these reforms is quite narrow and the prospects for success are much dimmer than promised. The symposium highlights the fact that policy makers’ desire “to do something” often leads to a rush to implementation built on an over-interpretation of the existing evidence -- or even a willful misreading of that evidence.

Paper Abstract: This presentation offers a critical examination of data-driven improvement and accountability (DDIA): the policies and practices concerning the use of data to inform school improvement strategies and to provide information for accountability. DDIA can lead either to greater quality and equity, or to deterioration of services and distraction from core purposes. Hargreaves and Braun (2013) address the focal question: What factors and forces can lead DDIA to generate more positive and fewer negative outcomes in relation to both improvement and accountability? Although educational accountability is meant to contribute to improved student learning, there are often tensions and even conflicts between improvement and accountability. Drawing on data from business and sports, as well as education, the presentation identifies five key factors that influence the success or failure of DDIA systems in public education:

(i) The nature and scope of the data employed by the improvement and accountability systems;
(ii) The types of indicators used to track progress or to make comparisons among schools and districts;
(iii) The interactions between the improvement and accountability systems;
(iv) The kinds of consequences attached to high and low performance and how those consequences are distributed;
(v) The culture and context of data use.

In general, we argue that over more than two decades, through accumulating statewide initiatives in DDIA and then in the successive Federal initiatives, DDIA in the U.S. has come to exert increasingly adverse effects on public education, because high-stakes and high-threat accountability, rather than improvement and accountability together, have become the prime drivers of educational change. Contrary to the practices of countries with high performance on international assessments, and of high performing organizations in business and sports, DDIA in the U.S. has been skewed towards accountability over improvement. It has focused on what is easily measured rather than on what is educationally valued. The high-stakes, high-pressure environment of educational accountability, in which arbitrary numerical targets are hierarchically imposed, has led to extensive gaming and continuing disruptions of the system, with unacceptable consequences for the learning and achievement of the most disadvantaged students. Instead of being informed by the evidence, educators become driven to distraction by narrowly defined data that compel them to analyze grids, dashboards, and spreadsheets in order to bring about short-term improvements in results.

The presentation concludes with twelve recommendations for establishing more effective systems and processes of data-driven or evidence-informed improvement and accountability. The significance of the research presented is that, drawing on data and experiences from different sectors and different countries, it offers a credible and coherent prescription for resolving the tensions between improvement and accountability. These are most likely to be resolved when there is collaborative
involvement in data collection and analysis, collective responsibility for improvement, and a consensus that the indicators involved in DDIA are accurate and fair. When these conditions are absent, improvement efforts and outcomes-based accountability can work at cross-purposes, to the detriment of all.


Saturday, April 5: **8:15am – 9:45am**

**Symposium: Reclaiming the Methodological Grounds of Neoliberal Education Policy Research**

**Building/Room:** Marriott, Fourth Level, 411

**Chair:** Kathleen M. Nolan (Princeton University)

**Discussant:** Lisa (Leigh) Patel (Boston College)

**Including:**
- “Perspectives From Studying Through School Closure Policy: A Critical Anthropology Guiding Neoliberal Inquiry” by Liza Pappas (The Graduate Center – CUNY)
- “Trapped Inside a Poisoned Maze: Mapping Young People’s Geographies of Disposability in Schools” by Patricia Krueger-Henney (University of Massachusetts at Boston)
- “Complicit Practices, Entangled Supports: How Education Policies Miss the Mark at Critical Junctures” by Mayida Zaal (Montclair State University)
- “Urban Teachers’ Counterstories of Neoliberal School Reform” by Kathleen M. Nolan (Princeton University)
- “What Does Policy Have to Do With It? Antibullying Legislation and LGBTQQ Youth Participation in Schools” by Darla Linville (Georgia Regents University)

**Symposium Abstract:** This panel seeks to push back against the prevailing neo-liberal education policies that help solidify unequal social arrangements and have their most dire effects on marginalized groups living in cities. In doing so, the panelists challenge the narrow scientism that supports such policies and discuss the contributions of a range of critical methodologies. Each panelist presents rich data from theoretically, city-based research that holds important policy implications and highlights methodological advantages. Additionally, the session opens a discussion to strategize ways to assert critical methodologies into policy discussions and join forces with communities in struggle for just and equitable educational practice.

Saturday, April 5: **10:00am – 11:40am**

**Invited Session:** Od2a2-2

**Building/Room:** Loews, Third Level, Washington

**Participants:** Henry I. Braun (Boston College), Neil J. Dorans (ETS), Fritz Drasgow (University of Illinois), Michael J. Kolen (University of Iowa)

Saturday, April 5: **10:35am – 12:05pm**

**Governance Session:** Educational Researcher Closed Editorial Board Meeting

**Building/Room:** Marriott, Fourth Level, Franklin 9&10

**Chair:** Carolyn D. Herdrington (Florida State University); Vivian L. Gadsden (University of Pennsylvania)

**Participants:** Peter P. Afflerbach (University of Maryland – College Park); H. Samy Alim (Stanford University); Angela E. Arzubiaga (Arizona State University); Seven Z. Athanases (University of California – Davis); Dominic J. Brewer (University of Southern California); Li Cai (University of California – Los Angeles); Gerald Campano (University of Pennsylvania); Paul A. Cobb (Vanderbilt University); Marilyn
Saturday, April 5: 10:35am-12:05pm (CONTINUED)

Cochran-Smith (Boston College); Lora A. Cohen-Vogel (University of North Carolina – Chapel Hill); Dylan P. Conger (The George Washington University); Thomas D. Cook (Northwestern University, Institute for Policy Research); Christopher J. Dede (Harvard University); Thomas Sean Dee (University of Virginia); Vanessa Paz Dennen (The Florida State University); Terrie Epstein (Hunter College – CUNY); John Fantuzzo (University of Pennsylvania); Francis (Skip) M. Fennel (McDaniel College); David J. Flinders (Indiana University); David A. Gamson (The Pennsylvania State University); Claude N. Goldenberg (Stanford University); Sara Goldrick-Rab (University of Wisconsin-Madison); Ellen B. Goldring (Vanderbilt University); Judith L. Green (University of California – Santa Barbara); Douglas H. Harris (Tulane University); Matthew Hartley (University of Pennsylvania); John A.C. Hattle; Heather C. Hill (Harvard University); Shouping Hu (Florida State University); Susan M. Johnson (Harvard University); Julie L. Kaomea (University of Hawaii-Manoa); Joseph S. Krajcik (Michigan State University); Suzanne Lane (University of Pittsburgh); Stacey J. Lee (University of Wisconsin – Madison); Gerland L. LeTendra (The Pennsylvania State University); Kofi Lomotey (Western Carolina University); Sarah Theule Lubienski (University of Illinois at Urbana-Champaign); Denis C. Meuret (Universite de Bourgogne); Rich Milner (University of Pittsburgh); Pamala A. Moss (University of Michigan); Kagendo Mutua (The University of Alabama); Naielah Suan Nasir (University of California – Berkeley); Carla D. O’Connor (University of Michigan); Francisco O. Ramirez (Stanford University); Jennifer L. Russell (University of Pittsburgh); William H. Schmidt (Michigan State University); Katherine Schultz (Mills College); Ronald C. Serlin (University of Wisconsin – Madison); Christine E. Sleeter (California State University – Monterey Bay); James P. Spillane (Northwestern University); Maria E. Torres-Guzman (Teachers College, Columbia University); Sharon L. Weinberg (New York University); Suzanne M. Wilson (University of Connecticut); Peter A. Youngs (University of Virginia); Ke-Hair Yuan (University of Notre Dame); Phat Nguyen (American Educational Research Association); Motoko Akiba (Florida State University); Stephanie Al Otaibe (Southern Methodist University); Katherine Kasten (University of Northern Florida); Christine M. McWayne (Tufts University); Sherry A. Southerland (Florida State University); Robert Jean LeBlanc (University of Pennsylvania); Katherine P. Summers (The Florida State University); John Neikirk (American Educational Research Association); Jason A. Grissom (Vanderbilt University)

Saturday, April 5: 10:35am - 12:05pm

Paper Session: Exploring Epistemological Perspectives in Research on Evaluation

Building/Room: Convention Center, 100 Level, 111A

Including:

- **Discussant:** Mary Anne T. Vo (University of California – Los Angeles)
- **Paper:** “A Measurement-Based Approach to Assessing Evaluators’ Commitment to Social Justice” by Lauren P. Saenz (Boston College)

**Paper Abstract:** This paper reports on the development of a sound instrument to measure evaluators’ implicit and enacted social justice beliefs. Despite a thriving field of evaluation theory rooted in social justice, there has been little conceptual or empirical work to link this ideal to evaluators’ beliefs. Scholars have begun to argue for the incorporation of social justice ideals into the teaching of evaluation; however, the lack of measurement tools in this field makes it difficult to assess implications of teaching such ideals to evaluators. We use a construct modeling approach to develop and operationalize this construct. This work fills a critical gap in our understanding of how evaluators develop and enact social justice beliefs in their training and practice.
Saturday, April 5: **10:35am - 12:05pm**

**Poster Session 9:** Program Evaluation in Schools Poster Session  
**Building/Room:** Convention Center, 200 Level, Hall E  
**Including:** “Estimating the Impact of Optimized Student Support in Elementary School on Boston Exam School Attendance” by Chen An (Boston College), Terrence J. Lee-St. John (Boston College), Anastasia E. Raczek (Boston College), Mary Walsh (Boston College), George F. Madaus (Boston College)  
**Paper Abstract:** Attending one of the three selective public high schools in Boston known as “exam schools” has been viewed as an indicator of academic success. This study examines the relationship between participation in a school-based student support intervention during elementary school and later Boston exam school attendance. City Connects (CCNX) is a systemic student support practice that partners with community agencies to connect children in high-poverty urban schools with tailored prevention, intervention, and enrichment services. The effect of treatment status on exam school attendance was estimated using two-level logistic regression models (CCNX student N=1107; non-CCNX Boston student N=6058). Results demonstrated that CCNX students were more likely to attend an exam school, with more CCNX years associated with higher likelihood of attendance.

Saturday, April 5: **10:35am - 12:05pm**  
**Symposium:** U.S.-China Innovative Partnership in Elementary Education  
**Building/Room:** Convention Center, 200 Level, 202B  
**Session Participants:**  
- **Presenter:** Guoli Liang (Global Educational Community)  
- **Presenter:** Ann Lieberman (Stanford University)  
- **Presenter:** Susan Schultz (Stanford University)  
- **Presenter:** Jennie Rakestraw (Winthrop University)  
- **Discussant:** Andrew Hargreaves (Boston College)  
- **Chair:** Susan Hidreth Bardouille Charles (Santa Clara University)  
**Symposium Abstract:** This session will describe, document and analyze an international collaboration between the United States and China. Both project and inquiry based learning and performance assessment was introduced by American teachers teaching Chinese students from four different schools in Beijing and four schools in other cities in China. The innovative idea was to show real life examples. Chinese scholars observed and then questioned the teacher and the ideas shown. The symposium will consist of four different speakers in the new partnership. Issues addressed will be: the conceptual thought behind the global education partnership; the power and challenges of school-university partnerships; how 21st century skills and innovative instructional practices connect to performance assessments; and how school-university partnerships connect to international colleagues.

Saturday, April 5: **10:35am - 12:05pm**  
**Poster Session:** Program Evaluation in Schools Poster Session  
**Building/Room:** Convention Center, 200 Level, Hall E  
**Paper:** “Does Optimized Student Support in Elementary School Improve the Persistence of Preschool Effects on Student Outcomes?” by Bercem Akbayin (Boston College), Terrence Lee St John (Boston College), Anastasia E. Raczek, (Boston College), Mary E. Walsh, (Boston College)  
**Paper Abstract:** Preschool programs have been shown to provide positive effects on student achievement. However, the literature suggests that early childhood education program effects fade-out through elementary grades. One explanation is that challenges inherent to poverty may offset the short-term gains from ECE programs when students lack support systems. In this work, authors investigated the effect of an optimized student support intervention implemented in high-poverty elementary schools, City Connects, on the persistence of preschool effects on academic achievement. Using data
Saturday, April 5: **10:35am - 12:05pm (CONTINUED)**

from a ten-year quasi-experimental study, we examined teacher-rated math and reading achievement by students’ preschool attendance status. Results indicate that CCNX students who attended preschool experienced faster growth in academic achievement and maintained the effects through the end of 3rd grade.

Saturday, April 5: **2:45pm - 4:15pm**

**Invited Session:** State and Regional Educational Research Associations: Distinguished Paper Session 3  
**Building/Room:** Marriott, Fourth Level, Franklin 6  
**Including:**
- **Discussants:** James Thomas Owens (University of Central Florida) and Robert M. Nelson (University of Central Oklahoma)  
- **Paper:** “New England Educational Research Organization: Scientific Argumentation and the Beliefs of Teachers in Low- and High-Socioeconomic-Status Schools” by Rebecca Katsh-Singer (Boston College), Katherine L. McNeill (Boston College), Suzanna Jane Loper (University of California – Berkeley)

**Paper Abstract:** New England Educational Research Organization: Scientific Argumentation and the Beliefs of Teachers in Low and High SES Schools

Saturday, April 5: **2:45pm - 4:15pm**

**Paper Session:** Scale Development: Issues and Applications  
**Building/Room:** Convention Center, 100 Level, 117  
**Including:**
- **Discussant:** Okan Bulut (American Institutes for Research)  
- **Paper:** “Measuring Cultural Responsiveness to Evaluate STEM Programs: A Construct Modeling Approach” by Lauren P. Saenz (Boston College)

**Paper Abstract:** This paper presents initial results from an exploratory project aiming to develop and model a theoretical construct of “cultural responsiveness” (CR) in STEM education programs. In response to the historical underrepresentation of women and racial and ethnic minority students in STEM fields, many programs have attempted to incorporate culturally responsive practices and pedagogy in order to enhance student outcomes specifically for these underrepresented groups. However, evaluators lack a theoretically and empirically sound tool for measuring levels of CR; as a result, the causal links between CR and desired program outcomes is hazy at best. This project aims to fill that gap to spark broad new lines of research into the effectiveness and efficiency of STEM education programs.

Saturday, April 5: **2:45pm - 4:15pm**

**Paper Session:** Topics in Multiple Linear Regression  
**Building/Room:** Marriott, Fourth Level 415  
**Including:**
- **Discussant:** David J. Mundfrom (Eastern Kentucky University)  
- **Paper:** “Suppressor Variables Versus Suppression Effects” by Kelsey Klein (Boston College) and Larry H. Ludlow (Boston College)

**Paper Abstract:** Correlated predictors are commonplace in applied social science research. The extent to which they are correlated will influence the estimates and statistics associated with the other variables they are modeled along with. These effects may include enhanced or diminished regression coefficients for the other variables. The former case implies suppressor effects; the latter implies mediator effects.
Saturday, April 5: 2:45pm - 4:15pm (CONTINUED)
This paper examines the history, definitions, and design implications and interpretations when variables are tested as suppressors versus when variables are found to exhibit suppression effects. Empirical data from a single study illustrate the different approaches to studying potential suppressors and the interpretations of their results. Implications for teaching about suppressors and suppression effects are discussed.

Saturday, April 5: 2:45pm-4:15pm
Roundtable Discussion: Spirituality and Education: Selective Papers
Building: Convention Center, Terrace Level, Terrace IV
Including: “Identifying the Antecedents of Noncognitive Outcomes Among College Seniors” by Henry L. Braun and Minsong Kim (Boston College)
Abstract: The purpose of this study is to examine college students’ spiritual and religious development and estimate the statistical associations among students’ pre-matriculation characteristics, program affiliation, and self-reported activities. Faith development is measured on Leak, Loucks, and Bowlin’s (1999) Faith Development Scale (FDS). We employed ordinal logistic regression to examine relationships between pre-matriculation characteristics and program affiliation with four intermediate outcomes: Frequency of attending religious services, conversations with university professionals, conversations with people, and prayer/meditation. Secondly, this study seeks to understand to what extent these factors predict students’ FDS score. The intermediate results revealed that students’ gender, high school type, signature college program affiliation, and college affiliation at college matriculation showed statistically significant association in predicting these intermediate outcomes.

Saturday, April 5: 2:45pm - 4:15pm
Symposium: Community-School-University Partnerships: Exploring Universities as Catalysts for Comprehensive School Reform
Building/Room: Convention Center, 100 Level, 125
Including:
- Discussants: Jessica Nina Lester (Indiana University) and Robert F. Kronick (The University of Tennessee)
- Paper: “School-University Partnerships: Reflections and Opportunities” by Mary Walsh (Boston College)
Paper Abstract: Summary: Universities and schools have a long history of partnering with one another to achieve a range of educational goals in America’s schools. For many years, the needs of the universities were the primary impetus for partnership. Universities needed practicum sites for student teachers and other educational professionals, as well as participants for the research of university social science faculty. In more recent years, the balance has begun to shift dramatically so that the needs of schools are increasingly driving the formation of school-university partnerships.
Perspectives: This paper will focus on the major characteristics of and obstacles to effective school-university partnerships. Illustrative examples will be drawn from a long-term school-university partnership that has designed, implemented, and evaluated an evidence-based model of student support. Our perspective is that universities and schools are part of the larger community that is essential for supporting the development of children. Our work is grounded in the theoretical framework provided by developmental psychology, and specifically developmental contextualism.
Saturday, April 5: 2:45pm-4:15pm (CONTINUED)

Data Sources: The data for this paper relies upon an analysis of the existing literature on school-university partnerships as well as the qualitative and quantitative study of a 15-year university partnership with a large public school district. The data sources include needs assessments, anonymous satisfaction surveys, quantitative and qualitative implementation data, data from student academic and thriving measures, and work products (e.g., practice manuals co-developed by school and university partners).

Results: This paper will briefly describe the recent history, development, and major foci of school-university partnerships. After identifying a relatively neglected area of school-university partnerships, the paper will describe an existing partnership that addresses this area in order to illustrate the potential and opportunities for partnership. Characteristics of effective partnership include a shared conceptual understanding, mutuality in roles and relationship, sound operational plans, and evaluation of outcomes and process. Finally, this paper will close with a discussion of the challenges and potential benefits of school-university partnerships.

Scholarly Significance: The data on school-university partnerships is becoming increasingly clear. These partnerships can have a significant positive impact on student achievement and thriving.

Saturday, April 5: 2:45pm-4:15pm

Symposium: International Perspectives on the Professional Development of Teacher Educators in Contemporary University Contexts
Building/Room: Marriott, Fourth Level, 406
Chair: Brad Olsen (University of California – Santa Cruz)
Discussant: Marilyn Cochran-Smith (Boston College)
Including:
- “Examining the Professional Learning of Teacher Educators” by J. John Loughran (Monash University)
- “An Analysis of the Professional Identity Development of University Teacher Educators in California” by Brad Olsen (University of California – Santa Cruz) and Rebecca Buchanan (University of California – Santa Cruz)

Abstract: This symposium brings together four research teams representing three different countries in order to present both current research on the holistic professional development of teacher educators and new pedagogies for preparing them for work in teacher education. The two research presentations and the two pedagogical discussions all share sociocultural, situated, complexity-minded views of professional learning in education. The symposium is designed so that all four presentations—one from the US, one from Australia, and two from the Netherlands—inter-relate in ways for the audience to get a holistic conceptual, pedagogical, and empirical sense of how these countries are currently studying and supporting the recruitment, preparation, and ongoing development of university teacher educators’ lives and work.

Saturday, April 5: 2:45pm - 4:15pm

Symposium: Reimagining Family, School, and Community Partnerships as an Educational Change Strategy in the United States, Canada, and England
Building/Room: Convention Center, 100 Level, 120A
Including:
- Chair: Lauri Johnson (Boston College)
- Discussant: Gary L. Anderson (New York University)
Symposium Abstract: This symposium includes five papers that problematize traditional understandings of school-family-community partnerships across three national contexts by identifying different kinds of communities that advocate for educational change in ways and for purposes not often recognized in the literature. Methodologies include cross-national and ethnographic case studies, historical analysis, and survey research. Presenters will discuss how community-based organizations in Toronto and Boston use research; alliances between parent groups and teacher union organizers in England; community-university partnerships and community organizing in urban and rural schools in the U.S.; and historical parent and school district partnerships in London and Toronto that promoted race equality policies.


Paper Abstract: Overview and Perspective: On January 29, 2008 the Toronto District School Board (TDSB) approved the development of an Africentric school under their Alternative School policy. While this decision was the result of decades of educational activism by Black parents and community organizations, it also represented the behind-the-scenes advocacy of African Canadian district educators who bridged the school bureaucracy and community-based organizations to advocate for the needs of African Canadian students (Author, 2013). In London school district activism continued throughout the 1980s when newly appointed African Caribbean and Asian school leaders in the Inner London

Saturday, April 5: 2:45pm - 4:15pm

Educational Authority (ILEA) advocated for anti-racist policies and developed multicultural curriculum for London schools through the Center for Urban Studies and the Afro Caribbean Education Project (ACER) (Olowe, 1990; Garrison, 1985).

Methods and Data Sources: Utilizing a comparative historical case study approach, archival research was conducted on-site in both Canada and England. Primary sources in Toronto included the published minutes from the Toronto City School Board (1978 – 2008), curriculum guides, reports, and school board correspondence on the achievement status of African Canadian students, and newspaper articles, editorial essays, and photographs in mainstream newspapers and community-based publications. Primary sources for the London case included thirty years of newspaper clippings and journal articles on the promotion of race equality, and ILEA surveys, reports, curriculum guides, videotapes, and newsletters. Oral history interviews were conducted with 10 former principals and school district officials from the Toronto District School Board and 10 former ILEA headteachers and district officials.

Findings: Although large urban school bureaucracies are often portrayed as fortresses and the adversaries of parent and community activists, this study uncovers the role of progressive district educators in both Toronto and London in the creation of insider-outsider coalitions. The study details how they bridged the school bureaucracy and Black and South Asian community groups to promote race equity policies and programs over a thirty-year period.

Paper: “Challenges and Opportunities for Community Organizing in Rural Schools” by Elizabeth Cox, Andrew Hargreaves (Boston College), Danette Parsley (Education Northwest), Dennis Lynn Shirley (Boston College)

Paper Abstract: Objectives and Theoretical Framework: A frequent assumption made by policy makers is that if student achievement can only be accelerated, economic prosperity and a high quality of life will surely follow. For rural America, however, high-achieving students are those that are most likely to migrate to cities and suburbs, creating a “rural brain drain” that deprives their home communities of their most precious human resource (Carr & Kefalas, 2010). To truly assist rural communities, a more complex theory of action is needed. That theory of action should not only seek to improve student
achievement, but also should enhance students’ attachment to their home communities as well as empower them to be advocates for their schools and communities.

Methods and Data Sources: The paper draws on surveys and interviews to document initial challenges and opportunities experienced by the rural schools as they collaborate to promote an equal balance of attachment, empowerment, and achievement among their students.

Results: This paper will present preliminary research findings on a new rural educational network in the Pacific Northwest (Alaska, Idaho, Montana, Oregon, and Washington). With support of a grant from the US Department of Education, this network aspires not only to improve student learning in rural schools, but also to revitalize them by promoting students’ identification with them and their civic leadership in their communities. This new network will begin with 15 schools spread across the 5 states by early 2014.

Saturday, April 5: 7:00pm-8:15pm
Building/Room: Franklin 2 – Fourth Floor, 1201 Market Street, Philadelphia, Pennsylvania
Reception: Join Dean Maureen Kenny (Boston College) for the AERA Annual Meeting Reception
Hors D’Oeuvres and Cash Bar

Sunday, April 6: 8:15am-9:45am
Invited Session: Vale Susan E Noffke: ‘Person Holding Door’
Building/Room: Convention Center, 100 Level, 108A
Chair: Marilyn Cochran-Smith (Boston College)
Participants: Kenneth M. Zeichner (University of Washington), Mary L. Brydon-Miller (University of Cincinnati), Ana Maria Sierra-Piedrahita (Universidad de Antioquia), Marie T. Brennan (Victoria University, Melbourne), David W. Hursh (University of Rochester)

Sunday, April 6: 8:15am - 10:15am
Paper Session: Educational Change in Changing Times: Beliefs, Aspirations, Leadership, Critique, and Transformation
Building/Room: Convention Center, 100 Level, 118B
Session Participants:
- Presenter: Nienke M. Moolenaar (University of California – San Diego), Alan J. Daly (University of California – San Diego), Yi-Hwa Liou (University of California – San Diego)
- Presenter: Linda Collins (The University of Akron), Xin Liang (The University of Akron), Lisa A. Lenhart (The University of Akron), Sharon D. Kruse (The University of Akron)
- Presenter: Alexander M. Gurn (Boston College)
- Presenter: Ching-Chiu Lin (The University of British Columbia) and Kit M. Grauer (The University of British Columbia)
- Presenter: Leta Youck-McGowan and Jim Brandon (University of Calgary)
- Presenter: Hyeyoung Bang (Bowling Green State University) and Jin Suk Kim (Pusan National University)
- Discussant: Lauri Johnson (Boston College)
- Chair: Brian Robert Beabout (The University of New Orleans)
Sunday, April 6: **10:35am - 12:05pm**
**Paper Session:** Flipping the Script on Conversations Surrounding Race and Diversity  
**Building/Room:** Marriott, Fourth Level, 405  
**Chair:** James C. Jupp (Georgia Southern University)  
**Discussant:** Dana Thompson Dorsey (University of North Carolina – Chapel Hill)  
**Including:**
- “A ‘War Between Sorties’: The Master Narrative and Counternarratives in the Fight for a Culturally Relevant Curriculum” by Seth Peter Aleshite (The University of Arizona)  
- “Decolonizing the Counternarratives: Tucson’s New Movements Toward Educational Justice” by Leah Stauber (The University of Arizona)  
- “Desiring Diversity and White Settler Backlash: Violence as a Daily Logic” by Lisa (Leigh) Patel (Boston College)  
- Historical Counterstories: Toward a New Critical Race Methodological Tool” by Michael J. Lopez Mares-Tamayo (University of California – Los Angeles); Lluilana Alonso (University of California – Los Angeles); Ryan Edward Santos (University of California – Los Angeles); Daniel Gilbert Solorzano (University of California – Los Angeles)  

**Paper Abstract:** In this theoretical piece, I argue that the current desire for diversity on college campuses is an outgrowth of a short-sided and nebulous and has resulted in predictable backlash. I frame this argument in the writings and theories of critical race theory, particularly the work of Cheryl Harris on whiteness as property, and Jodi Byrd’s work on imperialism. Seeing universities and colleges as white settler property established on violent seizure contextualizes both the ways in which white backlash to the increasing presence of faculty of color manifests and how responses should be formulated. I close with a discussion of the structural changes that could be considered to take to deal with this confrontation of property and human rights.

Sunday, April 6: **10:35am - 12:05pm**
**Paper Session:** Leadership in a Global Context (Part 2)  
**Building/Room:** Convention Center, 100 Level, 102B  
**Session Participants:**
- **Presenter:** Lingyan Li (Beijing Normal University) and Yan Sun (Beijing Normal University)  
- **Presenter:** Ruth McGinity (The University of Manchester)  
- **Presenter:** Elizabeth T. Murakami (University of Texas of the Permian Basin), Katina E. Pollock (University of Western Ontario), Monika Tornsen (Umea University)  
- **Presenter:** Feiye Wang (East China Normal University) and Sally J. Zepeda (University of Georgia)  
- **Discussant:** Lauri Johnson (Boston College)  
- **Chair:** Kerry Kathleen Robinson (University of Tennessee Knoxville)

Sunday, April 6: **10:35am - 12:05pm**
**Poster Session 12:** Motivation in Education SIG Poster Session 1  
**Building/Room:** Convention Center, 200 Level, Hall E  
**Including:** “The Influence of Regulatory Focus on Standardized Test Performance” by Emily Quinn (University of Maryland – College Park) and David Miele (Boston College)  
**Paper Abstract:** According to regulatory focus theory (Higgins 1997), individuals strategically regulate their goal pursuit differently depending on whether they are concerned with seeking opportunities to maximize their performance (i.e., promotion-focused) or concerned with protecting against threats that
could jeopardize successful performance (i.e., prevention-focused). Three studies examined the effects of regulatory focus on standardized test performance. In Studies 1 and 2, prevention-focused students outperformed promotion-focused students on two sections of an SAT practice test. However, under increased time pressure (Study 3), promotion- and prevention-focused students performed equally well. These findings suggest that a prevention focus is more adaptive for performance in testing contexts with minimal stress and time-pressure, whereas a promotion focus may become more adaptive as test pressure increases.

**Sunday, April 6: 10:35am - 12:05pm**

**Symposium:** Detecting and Explaining Differential Item Functioning

**Building/Room:** Convention Center, 100 Level, 114

**Including:**
- **Discussant:** Ana Maria Villegas (Montclair State University)
- **Paper:** “A Building Theoretical Redescriptions: Digging Deeper Using Quantitative and Qualitative Approaches” by Mavis Haigh (The University of Auckland) and Larry H. Ludlow (Boston College)

**Paper Abstract:** Paper #3 provides a redescription (Danemark, Ekstrom, Jakobsen, & Karlsson, 1997) of the findings presented in Paper #2 based on two additional analyses. The goal was to gain deeper understandings of how those in ITE perceived the interaction of ITE elements and how their location within ITE framed their understanding of the influence of the system on teacher candidate learning. Mixed-method analyses (Tashakkori & Teddlie, 2010) were used to inquire into participants’ thinking about how their experiences of the ITE system contributed to the different composite maps drawn by the respective constituent groups. Qualitatively, we employed interviews to probe into each group’s perspectives. Quantitatively, we examined how group members’ experiences shaped their perceptions of linkages between influential ITE elements.

**Data sources and methods:** Focus group interviews - People who had completed the mapping task (see Paper #2) were invited to focus group interviews to discuss constituent groups’ composite maps. Two focus groups were comprised of teacher candidates (N=6, N=5); one, teacher mentors (N=5); and one, teacher educators (N=5). Interviews focused on group members’ interpretations of: the phrase in the center of the map about how teacher candidates learn to teach; system elements designated as strong and weak influences; and, aspects of the composite map they found surprising/not surprising. Groups were also shown the other groups’ maps and asked to comment on similarities and differences. Interview data were analysed thematically (Braun & Clarke, 2006).

**Multidimensional scaling:** Data for the multidimensional scaling analysis (MDS) (Kruskal & Wish, 1978) consisted of distance matrices constructed by measuring all pairwise distances between the 39 elements that participants had placed on blank sheets of paper when asked to construct their own individual systems map. There were a total of 73 such matrices (23 teacher candidates, 25 mentor teachers, 25 teacher education academics). The MDS was performed using the SPSS INDSCAL procedure. The distance matrices were also subjected to the SPSS CLUSTER procedure.

**Findings and Scholarly Significance:** Interview transcripts revealed some similarities yet also striking differences among the constituent groups’ understanding of relationships among factors affecting candidates’ experiences. Mentor teachers and teacher educators placed considerably more emphasis on the intersecting inequalities affecting learners (candidates/children) than did the candidates. Candidates focused on practical elements of the ITE program, while teachers and teacher educators held more complex views of the system, emphasizing the interplay of theoretical knowledge and practical experience.
Sunday, April 6: **10:35am - 12:05pm** (CONTINUED)
The MDS analysis yielded a different redescription of the mapping data. Teacher candidates’ responses (Figure 1) varied along a central dimension of those with whom they had more or less immediate personal contact. In contrast, school-based mentor teachers’ responses (Figure 2) varied along a dimension of the least to the most practical aspects of learning to teach on a day-to-day basis in the classroom. For teacher educators (Figure 3), the dominant dimension spanned more informal to more formal aspects of learning. Codes for elements are shown in Table 1. This mixed-method approach, accounting for structure and relationships suggests new directions for identifying patterns of practice (see paper #4).

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**Sunday, April 6: 10:35am-12:05pm**

**Symposium:** Redrawing the Map: Toward a Complex Theory of Initial Teacher Education  
**Building:** Convention Center, 100 Level, 114  
**Paper:** “When Complexity Theory Meets Critical Realism: A Platform for Research on Initial Teacher Education” by Marilyn Cochran-Smith (Boston College)

**Abstract:** Problem and Objectives: Multiple scholars have concluded that teacher education research needs more complex and holistic approaches (e.g., Anderson & Stillman, 2013; Cochran-Smith & Zeichner, 2005; Valencia, Martin, Place & Grossman, 2009). Accordingly, researchers have taken up a number of theoretical frameworks (e.g., activity theory, ecological theory, structuration theory, complexity theory) that avoid reducing teacher education to its pieces and instead aim to account for its complex social, cultural, policy, and political contexts. Along these lines, Paper #1 elaborates the theoretical framework for this session based on the integration of complexity theory and critical realism.

**Theoretical Perspectives and Related Literature:** In the social sciences and education, “complexity theory” has been used to examine individuals, social phenomena and organizations—understood as systems—and how these change, learn, and evolve over time (Mason, 2008; Morrison, 2008; Wheatley, 2006). Rather than parts, complexity theory focuses on wholes, relationships, and open systems (Byrne, 1998; Davis & Sumara, 2006). Rather than predictable linear effects, complexity theory posits that multi-dimensional relationships, complex feedback loops, and dynamic interactions among agents and elements are responsible for patterns and phenomena (Cilliers, 1998; Haggis, 2008). Following work in sociology (Byrne, 1998, 2001; Reed & Harvey, 1992), we integrate key ideas from complexity theory with ideas from critical realism, a philosophy connecting aspects of the natural and social worlds at the level of deep causal mechanisms (Bhaskar, 1987; Sayer, 1992). Critical realism holds that although reality is not fixed nor immediately accessible, it has some aspects that exist beyond our knowledge and conceptions of them, including causal mechanisms that produce empirically observable events (Danermark, Ekstrom, Jakobsen, & Karlsson, 1997).

Guided by CT-CR, our research team is conducting a series of studies intended to develop an explanatory theory of teacher education. These studies reflect critical realism’s stages of development of explanatory models (Danermark, Ekstrom, Jakobsen, & Karlsson, 1997), which begin with complex, but concrete description and analysis of the components of a phenomenon (Paper #2), then proceed to theoretical redescriptions that accounts for structures and relationships (Paper #3). Development continues with the identification of patterns of practice consistently linked with student learning, which suggest possible key mechanisms that make a phenomenon possible (Paper #4) and then returns to the concrete level, by considering how structures and mechanism manifest and interact at different levels and conditions.

**Contributions to the Field:** We refer to CT-CR as a research “platform” to suggest that this combination allows for causal explanations about teacher learning and teacher education systems without being reductionist or linear. CT-CR’s description of the agency-structure relationship accounts for human
agency by acknowledging that under certain conditions, agents have the capacity to initiate causal sequences. CT-CR also permits examination of teacher education in relation to intersecting systems of social inequality based on class, gender and ethnicity (Walby, 2007). As a research platform, CT-CR opens new questions, places to look for explanations, and ways to understand the initial conditions, system interactions, and underlying causal mechanisms that facilitate the emergence of desired outcomes in teacher education.

Sunday, April 6: **10:35am-12:05pm (continued)**

**Invited Session:** Exploring the Power of Practitioner Research for Innovation in Practice and Policy: The Philadelphia Story

**Building/Room:** Convention Center, 200 Level, 204C

**Chairs:** Marilyn Cochran-Smith (Boston College) and Susan L. Lytle (University of Pennsylvania)

**Discussant:** Elyse A. Eidman-Aadahl (University of California – Berkeley)

**Speakers:** Rebecca Akin (Oakland Unified School District), Alan D. Amtzis (The College of New Jersey), Melinda Bihn, Gerlad Campano (University of Pennsylvania), Gillian Maimon (School District of Philadelphia), Diane Waff (University of Pennsylvania)

**Abstract:** Practice has emerged as a key issue in educational improvement, and practitioners have been identified as the lynchpins in educational reform. However, the knowledge practitioners generate by engaging in research is generally missing from larger efforts to improve the learning and well-being of children and adults and also missing from the programs of research associations, such as AERA. This session is intended to reposition practitioners, who are usually positioned as consumers and implementers of other people’s knowledge, rather than as legitimate generators of knowledge themselves. The session features six presenters who have played different roles in the “Philadelphia story,” a city that has been central to the development of the North American practitioner research movement since the mid 1980s.

**Sunday, April 6: **12:25pm-1:55pm**

**Invited Session:** Exploring the Power of Practitioner Research for Innovation in Practice and Policy: The Philadelphia Story

**Building/Room:** Convention Center, 200 Level, 204C

**Chairs:** Marilyn Cochran-Smith (Boston College) and Susan L. Lytle (University of Pennsylvania)

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**Sunday, April 6: **2:15pm-3:45pm**

**Paper Session:** Partnerships, Policies, and Parental Involvement

**Building/Room:** Convention Center, 100 Level, 115B

**Chair:** Mehmet Dali Ozturk (College of the Sequoias)

**Discussant:** Kathryn Bell McKenzie (California State University - Stanislaus)

**Including:**

- “Community Development Corporations and the Cultivation of Education Opportunity” by Alexis K. Bourgeois and Peter Michael Miller (University of Wisconsin – Madison)
- “Depth of Use: Characterizing the Role of Evidence Across Decisions in One Central Office” by Elizabeth N. Farley-Ripple (University of Delaware) and Vincent Cho (Boston College)
- “School District Diversity and Equity Leadership: A Statewide Case of Study of Integration Policy Enactment” by Allison Mathheis (California State University – Los Angeles)
- “School Districts and Their External Partners: A Conceptual Framework for Productive Partnering” by Caitlin Farrell (University of California – Berkeley) and Cynthia E. Coburn (Northeastern University)
- “An innovative Model for University-Assisted Urban School Reform” by Nancy W. Streim (Teachers College – Columbia University) and Kecia Hayes (Teachers College, Columbia University)

**Paper Abstract:** The press for “evidence-based” decision-making has elevated expectations for use of research, evaluation, and data in improvement efforts. For educational organizations, however,
Sunday, April 6: **2:15pm-3:45pm (CONTINUED)**

Increasing the role of evidence may be difficult to put into practice: They may encounter difficulties acting appropriately upon evidence, and decisions may seem based in other considerations. Subsequently, evidence use may look different across sites or decisions, making it insufficient to uniformly label decisions as "evidence-based." Drawing on data from a year-long case study of a central office, the paper explores how administrators engaged with evidence across three initiatives. From these decisions, we develop a set of dimensions that help articulate for both research and practice a continuum of practices that can be considered “evidence-based”.

**Sunday, April 6: 2:15pm - 3:45pm**

**Roundtable Session 20:** Mentoring in Urban Contexts

**Building/Room:** Convention Center, Terrace Level, Terrace III

**Including:**

- **Paper:** “Preservice Teachers’ Motivations, Career Expectations, and Goals” by Todd Reeves (Northern Illinois University) and Rebecca Jane Lowenhaupt (Boston College)

**Paper Abstract:** New teacher attrition is among the most salient problems facing the U.S. education system, with recent research attempting to understand this phenomenon in light of the generational characteristics of our nation’s teachers. This mixed methods study examined preservice teachers’ motivations, career expectations, and goals, including their aspirations for working with traditionally underserved populations (e.g., students in urban schools, and English language learners). Findings indicate that, even before officially entering the classroom, many teachers expect to take on multiple and diverse roles during their careers. The paper ends with a discussion of how teacher education might accommodate such differences in teachers’ motivations, expectations, and aspirations in order to promote retention. The findings offer insights for extant theory about teachers’ career paths.

**Sunday, April 6: 4:05pm-5:35pm**

**Invited Session:** The Implications of the Council for the Accreditation of Educator Preparation Policy Standards on Teacher Education Research, Policy, and Practices

**Building/Room:** Marriott, Fourth Level, Franklin 3

**Chair:** Magaly Lavadenz (Loyola Marymount University)

**Discussant:** James G. Cibulka (Council for the Accreditation of Educator Preparation)

**Presenters:** Marilyn Cochran-Smith (Boston College), Mary Vixie Sandy (California Commission on Teacher Credentialing), Cynthia Freeman Grutzik (California State University – Long Beach), Andrea K. Whittaker (Stanford University), Jon D. Snyder (Stanford University), Marcy Singer-Gabella (Vanderbilt University), Barbara L. Bales (University of Wisconsin-Milwaukee)

**Abstract:** During this open meeting of the Policy Initiatives Committee, panelists will address the recently released CAEP standards (January, 2014) and their influence and impact on teacher preparation and research. This session will be constructed as an interactive dialogue between policy leaders in teacher education and participants. Building upon the extant research on teacher education policy analysis, the session will address the complexities, activities, and interactions among and between policy initiators, implementers and interpreters of teacher education policy at national, state, and institutional levels while engaging with the audience. Attendance is open to those interested in or directly involved in the development, implementation, or investigation of state and national policy initiatives related to teaching and teacher education.
Sunday, April 6: 4:05pm - 5:35pm

**Poster Session 15**: The Lives of Teachers: Poster Session

**Building/Room**: Convention Center, 200 Level, Hall E

**Including**: “Teachers’ Sense of Efficacy in Schools Implementing an Optimized Student Support Model” by Michael Capawana (Boston College), Anastasia E. Raczek (Boston College), Evan Michel (Boston College), Claire Foley (Boston College), Mary Walsh (Boston College)

**Paper Abstract**: Teacher efficacy is defined as a set of beliefs about the capability to evoke desired outcomes in student learning. A twelve-item Teacher Efficacy scale (Tschannen-Moran & Woolfolk Hoy, 2007) was completed by 149 elementary school teachers in two large Massachusetts high-poverty urban school districts as part of a longer satisfaction and practice survey for a school-based student support intervention. The tool provides an overall Efficacy score and Instructional Strategies, Classroom Management, and Student Engagement efficacy sub-scores. Factor structure in this sample was comparable to prior research and scale reliability was high (0.85-0.94). Compared to the literature, teachers in this intervention rated themselves higher in efficacy, particularly Classroom Management. Multivariate analyses revealed an association of efficacy and years of teaching experience.

Sunday, April 6: 4:05pm - 6:05pm

**Symposium**: Culturally Responsive School Leadership: Empirical Research and Theoretical Advances

**Building/Room**: Convention Center, 100 Level, 120A

**Paper**: “Culturally Responsive School Leadership and Community Activism” by Camille M. Wilson (Wayne State University) and Lauri Johnson (Boston College)

**Paper Abstract**: While culturally responsive leadership affirms all cultures, racial tensions and inequities continue to thwart the academic progress of students of color, marginalize families, and contribute to the lack of educational resources, political representation and power. Our research on Black educational communities in Toronto, London, and Detroit discusses how race informs reform agendas, community activism, and change. As a transnational phenomena, Black-focused educational programs in global locales reflect a historical tradition of educational self-sufficiency in Black communities that links diasporic cultural knowledge with ties to a reimagined African homeland. Parents, educators, and community activists in Toronto and London have advocated for the needs of Black students and proved resourceful in developing new educational sites when government schools proved insufficient. These efforts have led to essential community-building in often hostile educational environments. Many Black Detroiteres in the U.S. draw upon cultural norms and racial consciousness to engage in educational activism, yet have experienced less success as they face enduring political and educational barriers while striving to combat school closures, financial and governance takeover, and abysmal achievement scores in a city deeply affected by poverty, mismanagement, population loss, and controversial state policies.

This session aims to spark discussion about: the salience of racial politics in urban education; the role Black families and community activists play in holding formal authority figures accountable for culturally relevant educational leadership; the ways that activism might advance democracy and equity; and how educational leaders might infuse racial awareness, critique and coalition building into their leadership efforts.
Monday, April 7: 8:15am - 9:45am
Roundtable Session 24: The Development of Vocabulary and Comprehension in Spanish-Speaking English Learners
Building/Room: Convention Center, Terrace Level, Terrace IV
Paper: “Patterns of Vocabulary Growth for Young Bilingual Students” by Kavita Venkatesh (Boston College), Mariela M. Paez (Boston College), Zhushan Mandy Li (Boston College)
Paper Abstract: Objectives: Research has shown that language experiences and early exposure to literacy are important for language development and reading success (Snow, Burns, & Griffin, 1998). In particular, vocabulary development has been identified as a critical domain in reading achievement and a challenging area for young bilingual students (August & Shanahan, 2006). This study presents findings from a home/school vocabulary intervention, growth patterns for young bilingual learners who participated in this intervention and the factors that influence these patterns of vocabulary growth including participation in the intervention program.
Theoretical Framework: This study is informed by research related to vocabulary development which demonstrate that bilingual students lag behind their English-speaking peers in depth and breadth of vocabulary knowledge (August, Carlo, Dressler, & Snow, 2005) and there is a critical need to focus on early language development for these students (Mancilla-Martinez & Lesaux, 2011). It also explores the role of factors in explaining vocabulary development such as socioeconomic status, classroom factors (Lesaux, Rupp, & Siegel, 2007), and home literacy (Uchikoshi, 2006). The intervention program connected an English-language classroom intervention to a Spanish-language home intervention. The classroom component is informed by work on vocabulary teaching methods shown to be effective with ELL students (August et al., 2005; Calderón et al. 2005).
Methods: An analytic sample was derived from the larger study to examine the research questions. Participants included 97 bilingual children with three waves of data: beginning of kindergarten, end of kindergarten, and end of first grade. The participants were part of a vocabulary intervention study at four school sites: two intervention and two control schools. The intervention included thematic units with read-alouds, discussion prompts, pre-teaching vocabulary, and structured visual and kinesthetic activities that aligned with the read-alouds.
Data Sources: Data included standardized measures of vocabulary including three subtests from the Test of Oral Language Development-Primary: picture vocabulary, relational vocabulary, and oral vocabulary. Other data included a home language and literacy questionnaire, as well as researcher-developed assessments of vocabulary, and standardized assessment of comprehension.
Analysis and Conclusions: We examine the rate of vocabulary growth over time, the variables that influence that rate, and whether growth rates differ for different subsamples within the study (i.e. intervention versus control, boys versus girls). Analyses include techniques such as growth modeling to measure how children’s vocabulary skills change over time. Preliminary analyses indicate that a variety of patterns and trajectories are evident across the participants in this study. Patterns identified include acceleration, deceleration and stagnant growth
Significance: This study has theoretical and practical implications for young bilingual students. It adds to the current body of research and extends the contribution of a longitudinal study on young bilingual students. The present study takes into account the gaps and limitations of previous research by addressing the specific vocabulary needs of this population.
Monday, April 7: 8:15am-9:45am
Symposium: A New STEM Education Model for a New Era: Integrating Social Justice, Urban Ecology, and Career Development
Building/Room: Convention Center, 100 Level, 121C
Chair: Michael Barnett (Boston College)
Discussant: Caroline E. Parker (Education Development Center, Inc)
Including:
- “A Psychology of Working Perspective on the Science Career Development Pathways of Diverse Students” by Sheron L. Mark (Loyola Marymount University)
- “Twenty-First-Century Urban Renewal: Mathematical Self-Efficacy and Understanding of Real-World Graphical Data Using Geospatial Technologies” by Dennis J. DeBay (Boston College)
- “Infusing Social Justice Education Into an Out-of-School STEM Education Program” by David L. Blustein (Boston College), Saliha Kozan (Boston College), Alice Connors-Kellgren (Boston College), Catherine Wong (Boston College), Michael Barnett (Boston College), Annie Patchen (Boston College), James Haley (Boston College)
- “A Longitudinal Study of an Integrative STEM Career Development Program for Urban High School Student” by Alice Connors-Kellgren (Boston College), Saliha Kozan (Boston College), David L. Blustein (Boston College), Michael Barnett (Boston College), Catherine Wong (Boston College), James Haley (Boston College), Amie Patchen (Boston College)

Symposium Abstract: This session discusses the impact of integrating social justice with STEM skill and career development in an out-of-school program for low income, ethnic minority youth. The papers report on outcomes of a National Science Foundation ITEST-funded project that engaged students from an urban center in using STEM skills to address community problems. Understanding the complexities of STEM career development required multiple approaches, by leveraging qualitative, quantitative, and ethnographic methodologies to examine students’ interest in STEM careers both in the short term and longitudinally. Researchers found that integrating these strands supported the development of students’ self-efficacy, career exploration regarding STEM, community critical consciousness and the potential of STEM to provide a secure base from which students could explore STEM careers.

Monday, April 7: 8:15am-9:45am
Paper Session: Educational Outcomes and the Role of Institutional Type
Building/Room: Convention Center, 100 Level, 108B
Including:
- “College Completion and Remedial Education: Do Institutional Characteristics Make a Difference?” by Katherine A. Shields (Boston College) and Laura M. O’Dwyer (Boston College)
- “Linking Institutional Policies to Student Success: Evidence from 57 Institutions” by Bradley E. Cox (Florida State University); Robert D. Reason (Iowa State University); Barbara F. Tobolowsky (The University of Texas – Arlington); Rebecca Brower (Florida State University)
- “Precollege Factors That Affect Spirituality Among Non-Christian Students at Christian Colleges and Universities: A Coparison With Christian Students” by Wally Ride (Ambrose University College); Oscar Espinosa-Parra (Touro University – Nevada); John Lommel (Azusa Pacific University); David Edens (Cal Poly Pomona); Young K. Kim (Azusa Pacific University)
- “The Challenges of Comparing Postsecondary Outcomes of Hispanic-Serving Institution (HSIs) and Non-HISs” by Awilda Rodriguez (University of Pennsylvania); Emily Calderon Galdeano (Excelencia in Education)

Paper Abstract: This study compares postsecondary outcomes among students who do and do not enroll in remedial (sometimes called developmental) courses. The analysis examines the relationship
between remediation and the odds of earning at least an Associate’s Degree, and explores how this relationship differs across colleges with different institutional characteristics. Multilevel logistic regression is used to analyze interview and transcript data from 10,270 students at 660 two- and four-year institutions from the Beginning Postsecondary Students Longitudinal Study (2004/2009). Among students who first enroll at a four-year college, remediation exhibits a negative association with completing a degree, but this relationship is not found among two-year college students.

**Monday, April 7: 10:35am-12:05pm**

**Roundtable Session:** Critical Issues in Catholic Education

**Building/Room:** Convention Center, Terrace Level, Terrace IV

**Including:**
- “Data Use in Catholic Schools: Challenges and Implications” by Vincent Cho (Boston College) and Joshua Littenberg-Tobias (Boston College)
- “Investigating Inquiry and Curriculum Mapping in Catholic Schools with a 200-Day Academic Calendar” by Franca Dell’Olio (Loyola Marymount University), Karie Huchting (Loyola Marymount University), Ursula S. Aldana (Loyola Marymount University), Catherine Cichocki Muzzy (Serra Catholic School)
- “Moving Beyond the College-Preparatory High School Model to a college-Going Culture in Urban Catholic High Schools: The Importance of a College-Going Disclosure” by Ursula S. Aldana (Loyola Marymount University)
- “Parent-Child Home Numeracy Intervention and the Mathematics Scores of First-Grade Students in Urban Catholic Schools” by Millicent Lavelle-Lore (Montgomery County Intermediate Unit 23) and Aubrey H. Wang (Saint Joseph’s University)

**Paper Abstract:** Catholic schools are increasingly expected to be “data-driven” in how they go about serving students. However, the existing literature fails to provide guidance for how such practices should be led or supported in a Catholic school context. This paper addresses this gap in the literature by identifying practices likely to support data use in Catholics. Insights are derived from literature about data use in public settings and knowledge about the unique strengths and conditions in Catholic schools.

**Monday, April 7: 10:35am-12:05pm**

**Symposium:** Context Matters: Unpacking National Teacher Assessments and the edTPA in Four States

**Building/Room:** Convention Center, 100 Level, 113C

**Chair:** Amy Ryan (Boston College)

**Discussant:** Marilyn Cochran-Smith (Boston College)

**Including:**
- “Teacher Assessment in California: Is It a Reliable Measure of Success?” by Amy Reising (High Tech High) and Zoltan G. Sarda (High Tech High)
- “A Tale of Two Universities: The edTAP in Massachusetts” by Amy Ryan (Boston College), Patricia C. Paugh (University of Massachusetts – Boston), Sarah Enterline (K12 Insight), Keridan Doyle (Boston College), Andrew Frederic Miller (Boston College), Kristen Wendell (University of Massachusetts – Boston), Michael Gilbert (University of Massachusetts – Boston), Laura E. Vanderberg (University of Massachusetts – Boston), Lisa M. Gonsalves (University of Massachusetts – Boston), Christine Power (Boston College)
- “Teacher Certification in New York: Scramble Toward Readiness, Protest Changes, or Ignore it for Now” by S. Marshall Perry (Dowling College)
Monday, April 7: 10:35am-12:05pm (CONTINUED)

- “The edTPA in Washington State: Dilemmas and Opportunities” by Nancy A. Place (University of Washington – Bothell)

Symposium Abstract: This symposium highlights research from five diverse teacher preparation programs and pathways into teaching in California, Massachusetts, New York, and Washington. Together, we will shed light on the impact of the system contexts, which influence the implementation of large-scale teacher performance assessments such as the edTPA. Fullan (2000) warns that, “large-scale change cannot be achieved if individual states identify only with their own states, and are not similarly concerned with the success of other states and the country as a whole” (p. 23). In giving voice to teacher educators in a variety of geographic, institutional, and economic settings, this symposium has the potential to contribute to the national dialogue and provide understanding to this ever growing preservice teacher reform.

Monday, April 7: 10:35am-12:05pm

Paper Session: Educational Needs and Experiences of Immigrant Students in the United States

Building/Room: Convention Center, 100 Level, 105A

Including:

- “Connection to Collectivist Culture and Adjustment in U.S. Children of Asian Origins” by Tony Xing Tan (University of South Florida) and Travis Marn (University of South Florida)
- “Educational Involvement Among Immigrant and U.S.-Born Families: Antecedents and Trajectories During Elementary School” by Erin Sibley (Boston College)
- “Factors that Influence Undocumented Students’ College Search Process” by H. Kenny Nienhusser (University of Hartford), Blanca E. Elizabeth Vega (Teachers College, Columbia University); Mariella Saavedra (Teachers College, Columbia University)
- “Longitudinal Dual-Language Profiles of Young, Latino Children of Immigrants: Associations of Cognitive, Home, School, and Child Risk Factors” by Brian A. Collins (Hunter College – CUNY); Claudio O. Toppelberg (Harvard University)

Paper Abstract: As the number of immigrants in the U.S. continues to grow, it is crucial to understand the factors influencing the achievement of their children. Despite the strengths that immigrants bring, their children are at risk to perform worse than their non-immigrant peers academically, and family involvement in children’s education may be one source of support. In this paper, trajectories of parent-reported barriers to involvement and parent involvement activities from kindergarten through grade 5 are presented for a nationally-representative sample of elementary school students, including children from immigrant and US-born families. Of special interest are associations between school-level variables on the trajectories of barriers to involvement and involvement, per se.

Monday, April 7: 12:25pm - 1:55pm

Invited Session: Finding Your Voice at AERA 2015: An Open Forum With Division K Section Co-chairs

Building/Room: Convention Center, 100 Level, 120B

Chair: Angela Fong Lin Wong (National Institute of Education – Nanyang Technological University)

Presenters: Janice L. Anderson (University of North Carolina – Chapel Hill); Suzanne C. Carothers (New York University); Kenneth James Fasching-Varner (Louisiana State University); Beatrice S. Fennimore (Indiana University of Pennsylvania); Terry Kyle Flennaugh (Michigan State University); Darrell C. Hucks (Keene State College); Cindy Jong (University of Kentucky); Jung E. Kim (Lewis University); David E. Kirkland (New Yourk University/ Michigan State University); Woon Chia Liu (National Institute of Education – Nanyang Technological University); Crystal Machado (Indiana University of Pennsylvania); Ramon Antonio Martinez (The University of Texas – Austin); SJ Miller (University of Colorado – Boulder);
Monday, April 7: **12:25pm - 1:55pm (CONTINUED)**

Jane E. Neapolitan (Townson University); Lisa (Leigh) Patel (Boston College); Jody Nicole Polleck (Hunter College – CUNY); Detra Price-Dennis (Teachers College, Columbia University); Darlene Russell (William Paterson University); Alison L. Rutter (East Stroudsburg University); Audra Slocum (West Virginia University)

**Abstract:** In this session, participants will have the opportunity to learn about the proposal review process and gain valuable insight into writing strong proposals, making decisions about the right section for submission, common mistakes to avoid, criteria and standards for review, and being a good reviewer. Stations will be set up, each focusing on a specific topic, so that participants can circulate and gather information according to their needs and interests.

**Monday, April 7: 12:25pm - 1:55pm**

**Roundtable Session:** Research on Mathematics Teacher Knowledge and Practice

**Building/Room:** Convention Center, Terrace Level, Terrace III

**Chair:** Anne Marie S. Marshall (University of Georgia)

**Including:**
- “Equalize Problems Involving Integers: Analyzing Preservice Teachers’ Strategies” by Laura Bofferding (Perdue University) and Sue Ellen Richardson (Perdue University)
- “Hierarchy of South Korean Elementary Teachers’ Knowledge for Reaching Mathematics” by Lillie R. Albert (Boston College), Rina Kim (Boston College), Nayoung Kwon (Boston College)
- “Interactive Whiteboard Usage: An Instructional Tool for Whole-Class Mathematics Problem-Solving” by Anne Marie S. Marshall (University of Georgia)
- “Utilizing the Whole: Empowering Teachers with Research-Based Lesson Plans” by Carolyn E. Luna (The University of Texas – San Antonio)

**Paper Abstract:** The purpose of this study is to develop a framework for understanding teachers’ knowledge for teaching mathematics (MKT) by examining a hierarchy of 317 South Korean elementary teachers’ knowledge for teaching mathematics. Through a web-based survey, the teachers were asked to rank order their beliefs about and use of knowledge subdomains for teaching mathematics. Findings show that teachers’ beliefs about knowledge for teaching mathematics are divergent from current research trends. Also, their beliefs about the subdomains of knowledge for teaching mathematics were ranked differently in comparison to their actual use of the subdomains. Their hierarchy for MKT presents suggestions for the type of curriculum that might be offered for teachers to develop their knowledge at the pre-and in-service level.

**Monday, April 7: 12:25pm - 1:55pm**

**Roundtable Session 28:** Common Core State Standards, Language Standards, and English Language Learners: An Exploration of Implementation Processes

**Building/Room:** Convention Center, Terrace Level, Terrace IV

**Including:**
- **Paper:** “Educating English Language Learners “the WIDA Way”: Implementing Language Standards and Assessments in Massachusetts” by Rebecca Jane Lowenhaupt (Boston College) and Erica Owyang Turner (University of Wisconsin – Madison)

**Paper Abstract:** Currently, more than half of US states use a common English language proficiency assessment and a common set of English Language Development (ELD) standards aligned with the Common Core. This has been achieved through their membership in a single consortium of states called World-Class Instructional Design and Assessment (WIDA). Historically, district policies for ELL identification and reclassification, placement, and instruction have varied widely. The widespread
Monday, April 7: **12:25pm - 1:55pm (CONTINUED)**

adoption of the WIDA standards and assessment represents a significant shift from local decision-making to a standardized framework for ELL instruction. Nevertheless, there has been little research to date about the implications of this widespread policy reform.

This paper presents the case of the adoption of the WIDA ELD standards in Massachusetts, where the number of ELLs continues to grow a decade after the passage of a restrictive English-only policy. Specifically, the paper addresses the following research questions: What are the implications of state efforts to implement the WIDA materials in an English-only context? How do local educators make sense of the adoption of ELL standards and assessments? Drawing on prior research on instructional policy reform (Spillane, 2004; Coburn, Bae, & Turner, 2008), this paper builds theory about ELL-specific standardization efforts. Through a qualitative case study, we explore the implementation of ELD standards through an analysis of 30 interviews with WIDA staff, state actors, and district ELL coordinators.

The paper presents findings that (a) describe important ways in which the WIDA materials depart from existing policies and practices in Massachusetts; and (b) depict varied interpretations of their adoption. Unlike previous standards movements, the ELD standards promote an overarching approach to language learning, rather than concrete standards for instruction. At the same time, WIDA provides greater specificity about language proficiency across the content areas (WIDA, 2010). Findings suggest that many educators struggled to make sense of “the WIDA way,” which they perceived as a shift from the dominant paradigm of instruction in an English-only context. Others embraced WIDA’s materials as supporting current practice, particularly those in high-incidence districts with existing structures to support ELLs. Given WIDA’s expanded conceptions of ELL instruction for general education, participants noted the crucial role of advocates outside the ELL community, particularly school and district administrators. The paper ends with a set of implications for future research and practice.

This paper contributes to a growing area of research, addressing the significance of language standards and the roles of state policy and local, district practices in their implementation. Given the rapidly growing ELL population and trends toward standardization, this paper offers important insight into ELL policy implementation.

References

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**Monday, April 7: 12:25pm - 1:55pm**

**Roundtable Session 28**: The Completion Agenda: Finding Different Pathways

**Building/Room**: Convention Center, Terrace Level, Terrace IV

**Including:**

- **Paper**: “A Concerning Misalignment? Comparing Institutional and Student Perspectives on the Purposes and Goals of Completing a U.S. Bachelor’s Degree” by **Roy Y. Chan (Boston College)**, **Gavin T. Brown (The University of Auckland)**, **Larry H. Ludlow (Boston College)**

**Paper Abstract**: Society expects that degree granting institutions will ensure that students develop discipline specific competence, general skills (e.g., communication, written, oral, tolerance, compassion) and dispositions (e.g., attitudes, beliefs, curiosity) at the completion of a U.S. bachelor’s degree. This roundtable discussion reviews and synthesizes institutional and student purposes and goals for pursuing higher education. A comprehensive search of the literature selected 15 peer-reviewed articles, nine
Monday, April 7: **12:25pm - 1:55pm** (CONTINUED)
books, three magazines/newspaper articles, and one policy brief published between 2000 and 2013. Results suggest that student purposes tend to be very instrumental and personal, while higher education institutions tend to have aims that are highly ideal life- and society-changing consequences. Those misalignments in purposes and goals are discussed and several recommendations on their resolutions are offered.

Monday, April 7: **12:25pm - 1:55pm**
**Symposium:** Large-Scale Instructional Innovation and the Power of Education Research
**Building/Room:** Convention Center, 100 Level, 117
**Chair:** Dennis Lynn Shirley (Boston College)
**Symposium Abstract:** How and under what conditions can powerful instructional innovation be brought to scale? And what role does/should education research play in the large-scale transformation of teaching and learning? This symposium will address these questions by bringing together leaders of large-scale initiatives of instructional transformation with demonstrated success. Mary Jean Gallagher (Ontario Reform Strategy, Canada), Henry Levin (Accelerated Schools, US), Vicky Colbert (Escuela Nueva, Colombia), and Santiago Rincón-Gallardo (Learning Community Project, Mexico) will describe the instructional innovation advanced through their respective initiatives, the processes and the conditions under which they were brought to scale, key achievements and challenges, and the role educational research has played to spur or support large-scale instructional innovation.

Monday, April 7: **2:15pm - 3:45pm**
**Symposium:** The Principal as Educational Researcher: School Leaders’ Use of Educational Research for School Improvement, Past and Present
**Building/Room:** Convention Center, 100 Level, 108B
**Paper:** “Against the Tide”: Advocating for Race Equality in Toronto and London, 1978-2008” by Lauri Johnson (Boston College)
**Paper Abstract:** On January 29, 2008 the Toronto District School Board approved the development of an Africentric school under their Alternative School policy. While this decision resulted from decades of activism by Black parents and community organizations, it was also represented the behind-the-scenes work of principals and district leaders who documented the underachievement and 40% dropout rate of African Canadian students and the need for more culturally responsive curriculum. In London, race equality work culminated in the mid-1980s when newly appointed Black, South Asian, and progressive White headteachers and officials from the Multicultural Inspectorate of the Inner London Educational Authority developed and studied the effects of anti-racist policies and multicultural curriculum at the Center for Urban Studies and the Afrobe Caribbean Education Project. This comparative study examines the activism by principals, headteachers and school board officials in two global cities who used research on the systematic disparities for students of color to promote race equality policies and culture-based curriculum over a thirty-year period. Utilizing a comparative historical case study approach, archival research was conducted on-site in both Canada and England. Primary sources in both cities included published school board records, curriculum guides, photographs, and popular and professional media. Oral history interviews were conducted with 10 former principals and school district officials in both cities. This historical study reveals the often-neglected role of progressive school leaders who bridged the school bureaucracy and Black and South Asian community concerns. These advocacy leaders were public school principals or district leaders by day, community activists by night, and volunteer teachers in culture-based "supplementary schools" on Saturdays. They utilized both formal research and community-based knowledge to advocate for better opportunities and life chances for Black youth. As
Monday, April 7: **2:15pm - 3:45pm (CONTINUED)**

advocates they were often "caught in the crossfire" when their decisions and far-ranging alliances were questioned by governmental officials and radical community-based groups alike.

Although current urban school bureaucracies are often portrayed as fortresses by parents and community activists, these historical cases provide salutary examples of how school officials and community activists can collectively marshal multiple sources of evidence to work for educational change. The study also indicates cross-national borrowing of reform initiatives and signals how progressive school-community alliances can be dismantled through political forces and policy changes.

References


Archives:

The Runnymede Trust Collection, Black Cultural Archives; ILEA collection, London Metropolitan Archives, London.

Toronto District School Board archives, TDSB Heritage Services, 263 McCaul Street, Toronto, Ontario.

**Monday, April 7: ****2:15pm - 3:45pm**

**Symposium:** The Problem of Linear Thinking in Research on Teacher Learning: Can Complexity Theories Help?

**Building/Room:** Convention Center, 100 Level, 114

**Including:**

- **Discussant:** Alan J. Daly (University of California – San Diego)
- **Paper:** “Complexity Theory and Critical Realism: A New Framework for Teacher Education Research” by Marilyn Cochran-Smith (Boston College), Fiona Ruth Ell (University of Auckland), Lexie Barbara Grundoff (The University of Auckland), Larry H. Ludlow (Boston College), Mavis Haigh (The University of Auckland), Mary F. Hill (University of Auckland)

**Paper Abstract:** Problem and objectives: Researchers have used multiple theoretical frameworks, including activity theory (Engstrom, 2001), structuration theory (Giddens, 1984) and complexity theory (Davis & Sumara, 2006), to avoid reducing teacher education to its pieces and to account for its multiple contexts. Paper #1 draws on empirical analyses conducted by Project RITE (Rethinking Initial Teacher Education), an international cross-disciplinary research project, to argue that a research platform based on the integration of complexity theory and critical realism (CT-CR) offers new questions and methods that can generate explanatory theories about the connections of teacher education and student learning.

Theoretical framework and related literature: A major idea that complexity theory offers teacher education research is the distinction between complicated and complex systems (Byrne, 1998; Cilliers, 1998; Davis & Sumara, 1997). Complicated systems, which are equal to the sum of their parts, can be taken apart and the pieces closely studied and improved apart from the overall system. In contrast, with complex systems, complexity is manifested at the level of the system itself as a result of the parts’ interactions and non-linear relationships and of intricate feedback loops in the system (Cilliers, 1998). The RITE group has integrated these and other key ideas from complexity theory with key ideas from
critical realism, a philosophy that connects aspects of the natural and social worlds at the level of deep causal mechanisms (Bhaskar, 1987; Sayer, 1992). Here, we follow sociologists (Byrne, 1998, 2001; Reed & Harvey, 1992) who link complexity theory with critical realism to relate macro and micro issues without reductionism and to acknowledge that under some conditions, human agents can initiate particular causal sequences.

**Findings and contributions:** This paper argues that the CT-CR framework changes both the questions we ask about initial teacher education and how we seek answers as well as the nature of what we find. Using CT-CR as a research platform, we generated five groups of new questions: (1) questions about how programs function as systems, how participants understand system elements, and how system effects are amplified or diminished; (2) questions about programs/pathways and policy, such as how new policy creates disequilibrium and what learning opportunities emerge for teacher candidates and students; (3) questions about the ambiguous borders of complex systems, such as how program systems interact with schools as systems and how information flows between and within; (4) questions about systems' initial conditions and limits, such as the non-linear effects of feedback and other mediators on the emergence/non-emergence of teaching practices that enhance student learning; and (5) questions about teacher education system environments, which intersect with multiple systems of social inequalities (Walby, 2007), such as how inequalities shape candidates' learning and whether/how programs can help candidates develop critical and applied understandings of these. Drawing on the results of three empirical analyses, which address questions from groups 1 and 5 above and which use variations of system mapping as a tool for data collection and analysis, this paper examines the potential of CT-CR as a framework for teacher education research.