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## POSITIONS

<b>Program Director, M.A. in Learning Engineering</b>	2018–present
<b>Associate Research Professor</b>	2015–present
<b>Visiting Assistant Professor</b>	2012–2015
Measurement, Evaluation, Statistics, and Assessment (MESA) Lynch School of Education and Human Development Boston College	
<b>Assistant Professor</b>	2010–2012
<b>Acting Assistant Professor</b>	2007–2010
Learning Sciences, Department of Counseling and Educational Psychology School of Education Indiana University Bloomington	

## AREAS OF SPECIALIZATION

Assessment for learning; growth mindset; classroom assessment and grading practices  
Quantitative methods, including measurement, psychometrics, statistics, and research design  
Qualitative methods, including video analysis, interaction analysis, and cognitive ethnography  
Conceptual change and embodied cognition in the learning sciences and science education

## EDUCATION

<b>Ph.D. in Science and Mathematics Education</b>	2009
Graduate Group in Science and Mathematics Education (SESAME), University of California Berkeley	
<b>Dissertation:</b> <i>Information performances and illative sequences: Sequential organization of explanations of chemical phase equilibrium</i>	
<b>Committee:</b> Angelica Stacy (chair), Andrea diSessa, Rogers Hall, Mark Wilson	
<b>M.Sc. in Chemistry</b>	2004
Department of Chemistry, Cambridge University	
<b>Dissertation:</b> <i><sup>13</sup>C-Labelled synthesis of possible intermediates in the biosynthesis of chloroeremomycin</i>	
<b>Supervisor:</b> Jonathan Spencer	
<b>B.S. in Chemistry</b>	1998
Department of Chemistry, Harvey Mudd College	
<b>Dissertation:</b> <i>3-Iminobis(acetic acid)salicylaldehyde: A key intermediate in the synthesis of a photoreversible calcium chelator</i>	
<b>Supervisor:</b> Alison McCurdy	

## AWARDS

Spencer Foundation Dissertation Fellow	2004–2005
National Science Foundation Graduate Research Fellow	1999–2002
Winston Churchill Foundation Fellow	1998–1999

## GRANTS

“VideoReView: Support for Teachers’ Collection and Interpretation of Classroom Video to Improve Science Understanding and Argumentation” (DRL-1415898)

Doubler, S., TERC (PI); Guler, S., intuVision, Inc. (co-PI); Brown, N. J. S., Boston College (co-PI)  
Funding agency: Discovery Research K-12 (DRK-12) Program, National Science Foundation  
Dates: 9/1/2014–8/31/2016 (continuing to 8/31/2018 under Russell, M., Boston College)  
Total award: \$2,296,031  
Boston College sub-award (PI: Brown, N. J. S.): \$390,395

“Focus on Energy: Preparing Elementary Teachers to Meet the NGSS Challenge” (DRL-1418052)

Lacy, S., TERC (PI); Brown, N. J. S., Boston College (co-PI); Tobin, R., Tufts University (co-PI)  
Funding agency: Discovery Research K-12 (DRK-12) Program, National Science Foundation  
Dates: 9/1/2014–8/31/2016 (continuing to 8/31/2018 under Russell, M., Boston College)  
Total award: \$1,999,836  
Boston College sub-award (PI: Brown, N. J. S.): \$143,827

“Psychometric and Growth Modeling of Complex Patterns of Learning Resulting From the Interrelationships Between Multiple Learning Progressions” (DRL-1109714/DRL-1313513)

Brown, N. J. S., Indiana University Bloomington (PI)  
Funding agency: Research and Evaluation on Education in Science and Engineering (REESE) Program, National Science Foundation  
Dates: 8/1/2011–8/31/2016  
Total award: \$951,997  
Boston College transfer award (PI: Brown, N. J. S.): \$707,775

“What Mathematics Do Students Know? Implications From NAEP for Curriculum and Policy” (DRL-1008438)

Kloosterman, P. W., Indiana University Bloomington (PI); Walcott, C., Indiana University-Purdue University Columbus (co-PI); Mohr, D. J., University of Southern Indiana (co-PI); Brown, N. J. S., Indiana University Bloomington (co-PI)  
Funding agency: Research and Evaluation on Education in Science and Engineering (REESE) Program, National Science Foundation  
Dates: 7/15/2010–6/30/2015  
Total award: \$1,356,030  
Boston College sub-award (PI: Brown, N. J. S.): \$54,462

“Promoting Equitable and Accessible Science Instruction: Extending the Seeds of Science/Roots of Reading Curriculum to Middle School”

Barber, J., University of California Berkeley (PI)  
Funding agency: Bill & Melinda Gates Foundation  
Dates: 1/1/2010–12/31/2012  
Total award: \$2,999,730  
Indiana University Bloomington sub-award (PI: Brown, N. J. S.): \$21,688

## PUBLICATIONS

### JOURNAL ARTICLES

Brown, N. J. S., Afflerbach, P. P., & Croninger, R. G. (2014). Assessment of critical-analytic thinking. *Educational Psychology Review*, 26, 543-560.

Brown, N. J. S., & Wilson, M. (2011). A model of cognition: The missing cornerstone in assessment. *Educational Psychology Review*, 23, 221-234.

Brown, N. J. S., Furtak, E. M., Timms, M., Nagashima, S. O., & Wilson, M. (2010). The Evidence-Based Reasoning Framework: Assessing scientific reasoning. *Educational Assessment*, 15, 123-141.

Brown, N. J. S., Nagashima, S. O., Fu, A., Timms, M., & Wilson, M. (2010). A framework for analyzing scientific reasoning in assessments. *Educational Assessment*, 15, 142-174.

### EDITED VOLUMES

diSessa, A. A., Levin, M., & Brown, N. J. S. (Eds.). (2016). *Knowledge and interaction: A synthetic agenda for the learning sciences*. New York, NY: Routledge.

Brown, N. J. S., Duckor, B., Draney, K., & Wilson, M. (Eds.). (2011). *Advances in Rasch measurement* (Vol. 2). Maple Grove, MN: JAM Press.

### BOOK CHAPTERS

Brown, N. J. S., Maderer, S. S., & Wood, J. (2016). Assessing physical and earth and space science in the context of the NRC Framework for K-12 Science Education and the Next Generation Science Standards. In H. Braun (Ed.), *Meeting the challenges to measurement in an era of accountability* (pp. 349-386). New York, NY: Routledge.

Brown, N. J. S., Danish, J. A., Levin, M., & diSessa, A. A. (2016). Competence reconceived: The shared enterprise of Knowledge Analysis and Interaction Analysis. In A. A. diSessa, M. Levin, & N. J. S. Brown (Eds.), *Knowledge and interaction: A synthetic agenda for the learning sciences* (pp. 11-29). New York, NY: Routledge.

DeLiema, D., Lee, V. R., Danish, J. A., Enyedy, N., & Brown, N. J. S. (2016). A microlatitudinal/microlongitudinal analysis of speech, gesture, and representation use in a student's repeated scientific explanations of phase change. In A. A. diSessa, M. Levin, & N. J. S. Brown (Eds.), *Knowledge and interaction: A synthetic agenda for the learning sciences* (pp. 133-159). New York, NY: Routledge.

Brown, N. J. S. (2016). Feedback-relevant places: Interpreting shifts in explanatory narratives. In A. A. diSessa, M. Levin, & N. J. S. Brown (Eds.), *Knowledge and interaction: A synthetic agenda for the learning sciences* (pp. 403-425). New York, NY: Routledge.

diSessa, A. A., Levin, M., & Brown, N. J. S. (2016). Reflections: The KAIA project and prospects. In A. A. diSessa, M. Levin, & N. J. S. Brown (Eds.), *Knowledge and interaction: A synthetic agenda for the learning sciences* (pp. 570-582). New York, NY: Routledge.

Brown, N. J. S., Dai, S., & Svetina, D. (2016). Analyzing NAEP data at the item level. In P. Kloosterman, D. Mohr, & C. Walcott (Eds.), *What mathematics do students know and how is that knowledge changing? Evidence from the National Assessment of Educational Progress* (pp. 33-44). Charlotte, NC: Information Age.

Brown, N. J. S., Svetina, D., & Dai, S. (2016). Analyzing NAEP data at the construct level. In P. Kloosterman, D. Mohr, & C. Walcott (Eds.), *What mathematics do students know and how is that knowledge changing? Evidence from the National Assessment of Educational Progress* (pp. 315-334). Charlotte, NC: Information Age.

Kloosterman, P., Walcott, C., Brown, N. J. S., Mohr, D., Pérez, A., Dai, S., Roach, M., Wilson, L. D., & Huang, H.-C. (2015). Using NAEP to analyze eighth-grade students' ability to reason algebraically. In J. A. Middleton, J. Cai, & S. Hwang (Eds.), *Large-scale studies in mathematics education* (pp. 179-207). New York, NY: Springer.

### PROCEEDINGS

Banach, M., Brown, N. J. S., Carroll, C., Gillespie, N. M., Glaser, D., Hall, R., & Ryu, A. J. (2002). Constituting "missing objects" in learning conversations. In P. Bell, R. Stevens, & T. Satwicz (Eds.), *Keeping learning complex: The proceedings of the fifth international conference of the learning sciences (ICLS)* (pp. 606-610). Mahwah, NJ: Lawrence Erlbaum.

## OTHER PUBLICATIONS

- Brown, N. J. S. (2005). *The multidimensional measure of conceptual complexity* (BEAR Center Report 2005-04-01). Berkeley: University of California, Berkeley.
- Brown, N. J. S. (2005). Measuring conceptual understanding of chemical equilibrium: A case study. In M. Wilson, *Constructing measures: An item response modeling approach* (supplemental material). Mahwah, NJ: Lawrence Erlbaum.
- Brown, N. J. S. (2004). *Interpreting Ordered Partition Model parameters from ConQuest* (BEAR Center Report 2004-10-02). Berkeley: University of California, Berkeley.

## PRESENTATIONS

### INVITED TALKS

- Brown, N. J. S. (May, 2018). Progress profiles. Excellence in Teaching Day, Center for Teaching Excellence, Boston College.
- Brown, N. J. S. (May, 2017). Better reading assignments and class discussions: Using Poll Everywhere Surveys to enhance engagement, inclusion, and efficiency. Excellence in Teaching Day, Center for Teaching Excellence, Boston College.
- Brown, N. J. S. (May, 2016). Poll Everywhere in small class discussions. Excellence in Teaching Day, Center for Teaching Excellence, Boston College.
- Brown, N. J. S. (January, 2013). Embodied cognition and conceptual change in science. Faculty Scholars Program on STEM Education, Lynch School of Education, Boston College.
- Brown, N. J. S. (November, 2012). A model of cognition: The missing cornerstone of assessment. Educational Research, Measurement, and Evaluation (ERME) Brown Bag Lunch Discussion, Boston College.
- Brown, N. J. S. (March, 2012). Conceptual change in science: Theoretical discord and methodological solutions. TERC Brown Bag, TERC, Cambridge, MA.
- Brown, N. J. S. (October, 2008). Measuring constructs. Learning Sciences Professional Seminar, School of Education, Indiana University, Bloomington.
- Brown, N. J. S. (April, 2007). Methodology in conceptual change research: Characterizing and measuring explanations of chemical phenomena. Berkeley Evaluation and Assessment Research (BEAR) Center Colloquium, University of California, Berkeley.
- Brown, N. J. S. (September, 2006). Modeling and testing ordered coding schemes using Rasch measurement. Center for Research in Mathematics and Science Education (CRMSE) Brown-Bag Seminar, San Diego State University.

### PROFESSIONAL MEETINGS

- Tobin, R. G., Lacy, S. J., Crissman, S., Haddad, N., Brown, N. J. S., Gurkan, G., & Castle, C. (April, 2017). Learning a system of practices of science through energy: A fourth-grade case study. Presentation at the Annual International Conference of the National Association for Research in Science Teaching (San Antonio, TX).
- Brown, N. J. S. (April, 2016). Assessing physical and earth and space science in the context of the NRC Framework for K-12 Science Education and the Next Generation Science Standards. Paper presented at the Annual Meeting of the National Council on Measurement in Education (Washington, DC).

- Dai, S., Svetina, D., & Brown, N. J. S. (April, 2015). Predicting skipping behavior in NAEP mathematics assessment: A multi-level and multi-group confirmatory factor analysis approach. Paper presented at the Annual Meeting of the National Council on Measurement in Education (Chicago, IL).
- Brown, N. J. S., Svetina, D., & Dai, S. (April, 2014). Impact of methods of scoring omitted responses on achievement gaps. Presentation at the Annual Meeting of the National Council on Measurement in Education (Philadelphia, PA).
- Brown, N. J. S., Dai, S., & Svetina, D. (April, 2014). Predictors of omitted responses on the 2009 NAEP Mathematics Assessment. Poster presented at the Annual Meeting of the American Educational Research Association (Philadelphia, PA).
- Brown, N. J. S., Castle, C., & Chappe, S. (April, 2014). Within-item multidimensional modeling of the heteroscedastic interactions between multiple constructs. Presentation at the International Objective Measurement Workshop (Philadelphia, PA).
- Smith, C., & Brown, N. J. S. (April, 2014). The affordances and challenges of comparative longitudinal designs in matter LP research: Lessons from the Inquiry Project. Paper presented at the Annual International Conference of the National Association for Research in Science Teaching (Pittsburgh, PA).
- Brown, N. J. S. (October, 2013). Assessing critical analytic reasoning in science. Presentation at the AERA-funded research conference "Seeking Common Ground: A Multidisciplinary Examination of Critical Analytic Thinking in Learning and Development" (College Park, MD).
- Saenz, L., & Brown, N. J. S. (October, 2013). Using construct modeling to measure cultural responsiveness in STEM education. Presentation at the Annual Meeting of the American Evaluation Association (Washington, DC).
- Brown, N. J. S., & Corrigan, S. (October, 2011). Psychometric and growth modeling of complex patterns of learning resulting from the interrelationships between multiple learning progressions. Poster presented at the Annual PI Meeting for NSF REESE recipients (Washington, DC).
- Kloosterman, P., Brown, N. J. S., Walcott, C., & Mohr, D. (October, 2011). What mathematics do students know? Implications from NAEP for curriculum and policy. Poster presented at the Annual PI Meeting for NSF REESE recipients (Washington, DC).
- Brown, N. J. S., & Haltom, A. (April, 2011). Conceptual change research: Theoretical discord and methodological solutions. Paper presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA).
- Brown, N. J. S., & Haltom, A. (April, 2011). A process model for the co-construction of knowledge during explanations of scientific phenomena. Poster presented at the Annual Meeting of the American Educational Research Association (New Orleans, LA).
- Corrigan, S., Brodsky, L., Loper, S., Brown, N. J. S., Curley, J., Baker, J., Goss, M., Castek, J., & Barber, J. (December, 2010). Use of the attribute hierarchy method for development of student cognitive models and diagnostic assessments in geoscience education. Poster presented at the American Geophysical Union Fall Meeting (San Francisco, CA).
- Brown, N. J. S. (June, 2010). Interaction analysis. Presentation at the Knowledge in Pieces Workshop, International Conference of the Learning Sciences (Chicago, IL).
- Brown, N. J. S., Dray, A., & Lee, Y. (April, 2010). Measurement of increased student literacy over four years and across multiple content areas. Presentation at the Annual Meeting of the American Educational Research Association (Denver, CO).

- Brown, N. J. S., Kulikowich, J. M., & Wilson, M. R. (April, 2010). Where do we go from here? Modeling and measuring learning progressions. Presentation at the Annual Meeting of the American Educational Research Association (Denver, CO).
- Dray, A., Brown, N. J. S., & Lee, Y. (April, 2010). The nature of “embedded assessment”: The development of a measure of reading comprehension for struggling adolescent readers. Presentation at the Annual Meeting of the American Educational Research Association (Denver, CO).
- Brown, N. J. S., Nagashima, S., Fu, A., Timms, M., & Wilson, M. (April, 2010). Analyzing scientific reasoning in assessments: Using construct modeling and the Evidence-Based Reasoning Framework. Paper presented at the International Objective Measurement Workshop (Boulder, CO).
- Dray, A. J., Lee, Y., Diakow, R., Brown, N. J. S., & Wilson, M. (April, 2010). The San Diego Striving Readers Assessment Project: Creating measures of reading comprehension for adolescent readers. Presentation at the International Objective Measurement Workshop (Boulder, CO).
- Corrigan, S., Loper, S., Barber, J., Brown, N. J. S., & Kulikowich, J. (June, 2009). The juncture of supply and demand for information: How and when can learning progressions meet the information demands of curriculum developers? Paper presented at the Learning Progressions in Science Conference (Iowa City, IA).
- Brown, N. J. S., Wilson, M. R., Dray, A., & Lee, Y. (March, 2008). Assessing literacy in the classroom: The BEAR Assessment System. Presentation at the Striving Readers Local Evaluator Conference, United States Department of Education (Washington, DC).
- Brown, N. J. S., Wilson, M. R., Nagashima, S. O., Timms, M., Schneider, S. A., & Herman, J. L. (March, 2008). A model of scientific reasoning. Paper presented at the Annual Meeting of the American Educational Research Association (New York, NY).
- Nagashima, S. O., Wilson, M. R., Brown, N. J. S., Timms, M., Arnold, S. A., & Herman, J. L. (March, 2008). Application of a model of scientific reasoning to written assessments. Paper presented at the Annual Meeting of the American Educational Research Association (New York, NY).
- Brown, N. J. S., Wilson, M. R., Dray, A., & Lee, Y. (March, 2008). Assessing literacy in the classroom: The BEAR Assessment System for SLIC. Paper presented at the Annual Meeting of the American Educational Research Association (New York, NY).
- Kennedy, C. A., Brown, N. J. S., Draney, K., & Wilson, M. (April, 2006). Using progress variables and embedded assessment to improve teaching and learning. Paper presented at the Annual Meeting of the American Educational Research Association (San Francisco, CA).
- Brown, N. J. S., Kennedy, C. A., Draney, K., & Wilson, M. (April, 2006). Assessing a learning progression in science: Solving psychometric issues. Presentation at the International Objective Measurement Workshop (Berkeley, CA).
- Brown, N. J. S. (April, 2005). A multidimensional framework for measuring conceptual understanding: Undergraduate student explanations of chemical equilibrium. Paper presented at the Annual Meeting of the American Educational Research Association (Montréal, Canada).
- Brown, N. J. S. & Duckor, B. (July, 2004). The development and refinement of construct maps: What we are learning about the BEAR Assessment System in the field. Presentation at the International Objective Measurement Workshop (Cairns, Australia).
- Wilson, M. & Brown, N. J. S. (July, 2004). Measurement as struggle. Presentation at the International Objective Measurement Workshop (Cairns, Australia).

- Brown, N. J. S. (April, 2004). Performance analysis: Characterizing knowing in a clinical interview. Paper presented at the Annual Meeting of the American Educational Research Association (San Diego, CA).
- Gillespie, N. M., Ryu, A. J., Brown, N. J. S., & Loper, S. J. (April, 2004). Integrating situated perspectives and interactional analysis: Knowing and learning in science and math education. Presentation at the Annual Meeting of the American Educational Research Association (San Diego, CA).
- Brown, N. J. S., Draney, K., Kennedy, C., Liu, L., & Wilson, M. (November, 2003). Measuring student progress: Buoyancy concepts and explanations. Presentation at the DFG-NSF Workshop on Research and Development in Mathematics and Science Education (Washington, DC).
- Ryu, A. J., Gillespie, N. M., Loper, S. J., & Brown, N. J. S. (October, 2003). Knowing as an activity, part 1: Producing explanatory accounts and negotiating standards of accountability. Presentation at the Research in Undergraduate Mathematics Education Conference (Scottsdale, AZ).
- Brown, N. J. S., Loper, S. J., Gillespie, N. M., & Ryu, A. J. (October, 2003). Knowing as an activity, part 2: Argumentation and the negotiation of technical terms. Presentation at the Research in Undergraduate Mathematics Education Conference (Scottsdale, AZ).
- Brown, N. J. S. (April, 2003). Students as bystanders: Didactic instruction as a privileged dialogue with a non-existent student surrogate. Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, IL).

## TEACHING

### PROFESSIONAL DEVELOPMENT WORKSHOPS

#### Thomas A. Blake Middle School

Progress profiles: Revising our rubrics and scoring guides 2/06/2019

#### Emmaus Series for Catholic School Leaders, Roche Center for Catholic Education

Assessment for learning: Fostering a growth mindset 11/07/2018

Assessment for learning: Charting a path for our students and teachers 11/16/2016

Leading effective school assessment 11/19/2014

Interpreting student assessments for academic excellence 4/10/2013

#### Cardinal Spellman High School

Assessment for learning: From partial credit to progress profiles 8/29/2018

#### Two-Way Immersion Network for Catholic Schools, Roche Center for Catholic Education

Is there anyone on board who knows how to fly a plane? 6/27/2018

Assessment for learning: The power of fostering a growth mindset 6/21/2017

#### Dr. Philip O. Coakley Middle School

Assessment for learning: Knowing where you're going and how to get there 12/05/2017

#### Olin College of Engineering

Assessment for learning: Fostering a growth mindset in students 10/17/2017

#### Boston College High School

Frankenstein's assessment: The abomination of testing 6/17/2014

#### Saint Joseph Elementary School

Assessments with purpose: Measuring the 4Cs 1/27/2014 & 2/10/2014

**Massachusetts Bay Community College**

Developing course objectives and outcomes for STEM educators 11/19/2013  
 Recent trends in STEM assessment 11/05/2013

**GRADUATE**

**Lynch School of Education and Human Development, Boston College**

Education 462: Assessment and Test Construction F13, F14  
 Education 468: Introductory Statistics F12, S14, S18  
 Education 960: Measuring Educational and Psychological Constructs S13  
 ERME 7679: Fundamentals of Data and Assessment Literacy Summer 15  
 ERME 9852: Mixed Methods Research: Issues in Theory & Practice F17

**School of Education, Indiana University Bloomington**

Education-P 540: Learning and Cognition in Education S08, F08, S09, F09, S10  
 Education-P 573: Learning Sciences Apprenticeship S10, F11  
 Education-P 633: Capturing Learning in Context S09, S10, S12  
 Education-Y 527: Educational Assessment and Psychological Assessment F08, F09

**Graduate School of Education, University of California Berkeley**

Education 298A: Design and Scoring of Classroom Assessments S04

**UNDERGRADUATE**

**Lynch School of Education and Human Development, Boston College**

ERME 1060: Classroom Assessment F15, S16, F16, S17, F17, S18, F18, S19

**School of Education, Indiana University Bloomington**

Education-P 312: Learning: Theory into Practice F07

**College of Chemistry, University of California Berkeley**

Chemistry 1A: General Chemistry F00, F01, F02  
 Chemistry 1B: General Chemistry S01

**Multicultural Engineering Program, University of California Berkeley**

Academic Boot Camp Summer 02, Summer 03

**SERVICE**

**ADVISORY BOARDS**

NSF Cyberlearning and Future Learning Technologies Grant 2015–present  
 “Promoting Learning Through Annotation of Embodiment (PLAE)”  
 Danish, J. (PI), Enyedy, N. (co-PI), & Burke, J. (co-PI)

**COMMITTEES**

**Lynch School of Education and Human Development, Boston College**

Faculty Awards Committee 2017–present

**School of Education, Indiana University Bloomington**

Graduate Studies Committee & Recruitment and Financial Aid 2008–11  
 Dissertation Award Subcommittee (Chair) 2009–10  
 Beechler Award Subcommittee 2008–09



**Counseling and Educational Psychology Department, Indiana University Bloomington**

Department Awards 2010–11  
 Learning Sciences Faculty Search Committee 2007–08

**Learning Sciences, Indiana University Bloomington**

Qualifying Examinations (Chair) 2011–12  
 Orientation Weekend (Chair) 2011–12  
 Admissions 2011–12  
 Graduate Student Association 2011–12  
 Recruitment Weekend (Chair) 2009–10  
 Minor & Service Courses (Chair) 2008–10

**CONFERENCE ORGANIZATION**

AERA research conference: “Integrating knowledge and interaction in analyses of cognition” 2011  
 13<sup>th</sup> International Objective Measurement Workshop (Chair) 2006

**CONFERENCE LEADERSHIP**

**Discussant**

AERA Annual Meeting, SIG–Rasch Measurement 2012

**Session Chair**

NCME Annual Meeting 2014  
 AERA Annual Meeting, SIG–Rasch Measurement 2009

**CONSULTING**

Lynch School of Education and Human Development, Boston College 2013, 2017, 2018  
 Pre-submission grant review

**Massachusetts Bay Community College**

2014  
 Developing program and course learning outcomes for the STEM Learning Faculty  
 Assessment Learning Community

**TERC**

2013  
 Developing instruments for assessing STEM learning in elementary school

**MEMBERSHIPS**

National Council on Measurement in Education 2014–present  
 International Society of the Learning Sciences 2008–present  
 American Educational Research Association 2003–present

**REVIEWING**

**Journals**

*Cognition and Instruction* 2011, 2013, 2014, 2015  
*Educational Measurement: Issues and Practice* 2013, 2016, 2017  
*Educational Policy* 2017  
*Journal of Educational Measurement* 2018  
*Journal of the Learning Sciences* 2005  
*Measurement* 2019  
*Pensamiento Educativo: Revista de Investigación Educativa Latinoamericana* 2015

**Edited Volumes**

- diSessa, A. A., Levin, M., & Brown, N. J. S. (Eds.). (2016). *Knowledge and interaction: A synthetic agenda for the learning sciences*. New York, NY: Routledge.
- Alonzo, A. C., & Gotwals, A. W. (Eds.). (2012). *Learning progressions in science: Current challenges and future directions*. New York, NY: Springer.
- Brown, N. J. S., Duckor, B., Draney, K., & Wilson, M. (Eds.). (2011). *Advances in Rasch measurement* (Vol. 2). Maple Grove, MN: JAM Press.

**Conferences**

**American Educational Research Association Annual Meeting**

- |   |                      |
|---|----------------------|
| Division C, Section 6 (Cognitive, Social, and Motivational Processes) | 2005, 08, 09, 12     |
| Division G, Section 1 (Local Contexts of Teaching and Learning)       | 2005                 |
| SIG–Rasch Measurement   | 2005, 08, 09, 11, 13 |

**Society for Research on Educational Effectiveness Conference**

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|--|------|
| Section on Mathematics and Science Education in the Secondary Grades | 2011 |
|--|------|

**Curricula & Assessments**

- |   |      |
|---|------|
| Models of Matter, Seeds of Science/Roots of Reading® Curriculum | 2011 |
|---|------|

**STUDENT ADVISING**

**Boston College**

- |  |                 |
|--|-----------------|
| Allison Nannemann, Ph.D. in Curriculum & Instruction                                       | 2019 (expected) |
| Courtney Castle, Ph.D. in Educational Research, Measurement, and Evaluation (Acting Chair) | 2018            |
| 2017 PSAP Cohort, Ed.D. in Educational Leadership  | 2018            |
| 2015 PSAP Cohort, Ed.D. in Educational Leadership  | 2016            |
| Amanda Knight, Ph.D. in Curriculum & Instruction   | 2015            |

**Indiana University Bloomington**

- |   |      |
|---|------|
| Reuel Smith, Ed.D. in Mathematics Education                       | 2013 |
| Aaron Haltom, M.S. in Learning and Developmental Sciences (Chair) | 2012 |
| Jeremy Kinser, Ph.D. in Counseling Psychology                     | 2012 |
| Guang Yang, M.A. in Chinese Language Pedagogy                     | 2009 |