GLOBAL CONVERGENCE ON THE SCIENCE OF LEARNING Awardee Meeting

February 8th, 2018: Location at NSF Headquarters
2415 Eisenhower Avenue, Alexandria, Virginia 22314
Rooms 2020-2030

February 9th, 2018: Location at the Westin Alexandria
400 Courthouse Square, Alexandria, Virginia 22314

Welcome and thank you for your participation!!

DAY 1 AGENDA

8:00 – 9:00 am
POSTER PRESENTERS ARRIVE TO PUT POSTERS UP PRIOR TO MEETING.
Light continental breakfast will be available.

9:00 – 9:20 am
INTRODUCTIONS
ANDREA CHIBA – UC SAN DIEGO
LEANNE CHUKOSKIE – UC SAN DIEGO
TIM SHIPLEY – TEMPLE UNIVERSITY

WELCOME AND INTRODUCTION
FAY LOMAX COOK: ASSISTANT DIRECTOR FOR THE DIRECTORATE FOR SOCIAL, BEHAVIORAL & ECONOMIC SCIENCES

WELCOME
FIRST LADY OF VIRGINIA PAMELA NORTHAM

OPENING REMARKS
JOAN FERRINI-MUNDY: NSF CHIEF OPERATING OFFICER

Understanding the role of the Science of Learning in Education Policy

The aim of this session is to develop connections between Science of Learning research findings and Education Challenges, to support infusion of science-based findings in the field of education. How can we leverage convergent science for broader participation and inclusion? A community goal will be to consider what research is needed to support individuals with different needs or skill-sets. Through convergence in the fields of education, neuroscience, cognitive science, engineering, and economics the Science of Learning is positioned to inform education policy at multiple levels of application.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:20 – 10:00 am</td>
<td><strong>SEBASTIAN LIPINA—OVERCOMING THE IMPACT OF POVERTY ON LEARNING</strong></td>
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<td>10:00 – 10:20 am</td>
<td><strong>MODERATED DISCUSSION</strong></td>
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<td><strong>MODOERATORS: ANDREA CHIBA AND ROBERTO LENT</strong></td>
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<td>Speaker will review new findings on the effect of poverty on brain development and learning. The panel will discuss the potential for overcoming the impact of poverty on learning.</td>
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<td>10:20 – 10:40 am</td>
<td><strong>BREAK-- NETWORKING, SNACKS, CHECK EMAIL/PHONE</strong></td>
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<td>10:40 – 11:40 am</td>
<td><strong>SHOWCASE PRESENTATIONS: ESTABLISHING FOUNDATIONS FOR LEARNING</strong></td>
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<td><strong>SPEAKERS: PATRICIA KUHL, LEANNE CHUKOSKIE, MELINA UNCAPHER, AND ANDREW MELTZOFF</strong></td>
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<td>Speakers will review new findings on basic mechanisms of learning, including spatial reasoning, executive function, and the role of stress in diminished cognitive function. Speakers will consider implications from these findings for rehabilitation and impacts on school performance.</td>
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<td>11:40 am – 12:00</td>
<td><strong>MODERATED DISCUSSION</strong></td>
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<td><strong>MODOERATOR: TIM SHIPLEY</strong></td>
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<td>Audience will be invited to ask questions that seek to establish connections between speakers reported findings and their own research programs.</td>
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<td>12:10 – 1:10 pm</td>
<td><strong>WORKING LUNCH</strong></td>
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<td>Small group discussions connecting morning presentations to individual projects.</td>
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<td>1:15 – 2:15 pm</td>
<td><strong>PANEL DISCUSSION: SPECIAL SESSION ON PHILANTHROPIC INTERESTS IN THE SCIENCE OF LEARNING</strong></td>
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<td><strong>MODOERATOR: DANIEL LEEDS</strong></td>
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<td><strong>PANEL: KAREN JOHNSON, ANDY HO, SIMON SOMMER, JIUN KIMM</strong></td>
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<td>We encourage others to add their thoughts as well.</td>
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<td>Convergence with community and global needs is of utmost importance to the Science of Learning Community. We invite Philanthropic organizations to represent the public interest in the Science of Learning, allowing convergence on tangible goals for science to serve society.</td>
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<td><strong>Integrating Science of Learning Convergent Research</strong></td>
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<td>The aim of the afternoon session is to develop understanding of the role science of learning plays in the computational, information sciences, natural and social sciences. The most important tool used by scientists and students is their mind. Groups will develop understanding of how science of learning can support other sciences and be informed by their goals.</td>
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DAY 1 AGENDA

2:15 – 2:20 pm

BREAKOUT DISCUSSION GROUPS

INTRODUCTION: Tim Shipley

2:20 – 3:00 pm

SMALL GROUP FOCUSED DISCUSSION

1. How can we frame research questions in the Science of Learning that are particularly amenable for convergent science?
   MODERATOR: Akaysha Tang

2. How can we reduce barriers to interdisciplinary and international collaboration?
   MODERATOR: Fernanda Tovar-Moll

3. How can we facilitate Research to Practice? What are the challenges around taking research findings and applying them at scale?
   MODERATOR: Pasha Antonenko

3:00 pm – 3:45 pm

BREAKOUT RETURN FOR REPORTING FROM SMALL GROUP DISCUSSIONS TO THE LARGER GROUP

MODERATOR: Tim Shipley

3:45 – 4:00 pm

MODERATED DISCUSSION

MODERATOR: Andrea Chiba

Discussion on stimulating more convergent research in the science of learning.

4:00 – 5:40 pm

POSTER AND DEMO SESSION

Appetizers will be served.

*We must be out of the NSF building by 6pm*

Venue Change

Location at the Westin Alexandria
400 Courthouse Square, Alexandria, Virginia 22314
Edison Ballroom

6:30 – 8:30 pm
Located at the Westin Alexandria

VENTURE CAPITAL INTERESTS IN THE SCIENCE OF LEARNING

MODERATOR: Mark Strickland

Panel: Jason Palmer, Steven Ritter, Karl Rectanus, Jacob Whitehill
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DAY 2 AGENDA

**NETWORKING OVER BREAKFAST**

Light breakfast will be served.

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**MORNING SESSION**

9:00 – 10:20 am

*The Science of Learning at the Human Technology Frontier*

The aim of the morning session will be to develop connections between science of learning research and changing technology. Keeping pace with the implications that arise surrounding technology implementation presents a challenge and an immediate mandate to mobilize teams of scientists who are capable of quickly collaborating and reconfiguring for the purposes of addressing current and future challenges at the forefront of technology. The session will consider Science of Learning Research and Convergence with Industry, and the science of learning research needed to guide decisions in technology design, investment, and application.

**SHOWCASE PRESENTATIONS: INCORPORATING TECHNOLOGY**

Speakers: Cornelia Fermuller, Patrick Shafto, Jay Giedd, and Ken Koedinger

Developing autonomous technologies that perceive and learn from the environment, ultimately engaging in successful interactions with humans to accomplish shared goals, requires a deep theoretical understanding of the science of learning. At this technology interface, biology inspires design and, in-turn, the developed technologies teach us about the science of learning.
DAY 2 AGENDA

10:20 – 10:40 am
MODERATED DISCUSSION
MODERATOR: ANDREAS ANDREOU

10:40 – 11:00 am
BREAK-- NETWORKING, SNACKS, CHECK EMAIL/PHONE

11:10 am – 12:05
SMALL GROUP FOCUSED DISCUSSION
1. 21st Century Classroom - How can we leverage technology to benefit all learners?
   MODERATOR: NANCY LAW

2. What is the role of Science of Learning in Education Policy?
   PANEL: BETHANY LITTLE, KAI-MING CHENG, AOYING ZHOU, & DANIEL DOMINGUES DOS SANTOS; MODERATOR: GOVERNOR BOB WISE

12:10 – 12:30 pm
BREAKOUT RETURN FOR REPORTING FROM SMALL GROUP DISCUSSIONS TO THE LARGER GROUP

12:40 – 2:00 pm
WORKING LUNCH
Small group discussions connecting morning presentations.

PANEL DISCUSSION: WHAT SHOULD PARENTS AND GRANDPARENTS KNOW ABOUT THE SCIENCE OF LEARNING
PANEL: LAURA ANN PETITO, ANDREA CHIBA, JAY GIEEDD, ROBERTO LENT, LEANNE CHUKOSKIE
MODERATORS: PATRICIA KUHL AND ANDREW MELTZOFF

AFTERNOON SESSION

2:00 – 3:00 pm
Supporting Science of Learning Communities of Practice

As we prepare the next generation of Science of Learning Researchers, what new types of training are needed? How can we ensure that their training and the ongoing convergent research opportunities leverage the Global Network that is developing, ultimately contributing value and broadening participation in the global workforce.

LESSONS LEARNED AND KICKSTART IDEAS

SPEAKERS: TBD

This will be a dynamic, flexible meeting structure, where one might be asked to present a five-minute event based on ideas that bubble up at the meeting.

Examples of structural benefits from Science of Learning Centers, Science of Learning Collaborative Networks, International Networks, and individual PIs that will benefit the group in thinking about next steps for training and building capacity globally.
MODERATED DISCUSSION
M O D E R A T O R :  A N D R E A  C H I B A

Next steps for the community.

BREAK-- NETWORKING, SNACKS, CHECK EMAIL/PHONE

FINAL WRAP-UP SESSION


A “Network of Networks” model could encourage and support convergent research in the SoL. What networks would you like to see develop? What support would they need? What themes are important and overarching goals. What are the next steps for the community and plans to remain connected?

THANK YOU!!

This meeting is based on support by NSF
under Grant Nos. 1745771, 1745744, and 1748614