



## **“Argumentation and Inquiry as Venues for Civic Education”**

**9-12 Oct 2018, Jerusalem**

### **Local Organizing Committee**

Christa Asterhan, Baruch Schwarz, Edith Bouton, Yifat Kolikant, Efrat Firer.

### **International Organizing Committee**

*SIG 26 Argumentation, dialogue & reasoning*

Coordinators: Baruch Schwarz (The Hebrew University of Jerusalem) & Armin Weinberger (Saarland University)

JURE coordinator: Freydis Vogel (The University of Nottingham)

*SIG 20: Inquiry Learning*

Coordinators: Bram de Wever (Ghent University) & Ingo Kollar (University of Augsburg)

JURE Coordinator: Yiannis Georgiou (Cyprus University of Technology)

Christa Asterhan (The Hebrew University of Jerusalem)

### **Financial support**

- European Association of Research on Learning & Instruction (EARLI)
- The Hebrew University of Jerusalem
- The Seymour Fox School of Education, Hebrew University of Jerusalem

# Keynotes

## KEYNOTE 1 – Tuesday, 9.10.2018 (10:30 - 12:00) - Rabin auditorium



**Robin Alexander**

### **Whose discourse? Dialogic pedagogy in a post-truth world**

Dialogic pedagogy, as both research field and academic community, is expanding fast, though the task of realising its transformative potential at scale proceeds more slowly. The early preoccupation with IRE persists, as evidence tells us it probably should, but it is augmented by new lines of analysis, enquiry and development. These vary in focus, method and even nomenclature but have broad assumptions and aspirations in common; and because they mediate school curriculum disciplines they tend to accept conventional accounts of truth, evidence and rational discourse as norms for educational and civic engagement. Outside the classroom such consensus cannot be taken for granted. Traditional information sources and mechanisms are supplanted by social media - in which students themselves are notably active - while taken-for-granted truth claims are destabilised by the discourses of derision, 'fake news' and 'alternative fact'. In identifying possible lines of future development for dialogic pedagogy, we should therefore consider its prospects when discourse norms within the classroom collide so spectacularly with those outside it, giving particular attention to questions of voice, argumentation and language.

## KEYNOTE 2 – Wednesday, 10.10.2018 (10:30 - 12:00) - Rabin auditorium



**Hugo Mercier**

### **Evolution and development of the social functions of reason**

Human reason is known to have many failings. Reason is biased: we have a strong tendency to find reasons that support our prior beliefs or decisions, whether they are right or not. Reason is lazy: when it comes to supporting our beliefs or decisions, we accept just about any superficially sound reason. As a result, individual reasoning is often ineffective, with people regularly failing to overcome even blatantly faulty intuitions. Dan Sperber and I have attempted to make sense of these failings by suggesting that human reason mostly serves social, rather than individual, functions. I will explain how, when reason is understood as serving social functions, its biases can be seen as useful features, and more light can be shone on the strengths of reason, in particular its ability to objectively evaluate others' reasons, and to create constructive group discussions. I will also review recent work on the early development of the abilities to use reason in social context, suggesting that these abilities develop very early, with several positive results obtained in children from 2 to 5 years of age.

**KEYNOTE 3 – Wednesday, 10.10.2018 (10:30 - 12:00) - Mandel auditorium**



**Eleni Kyza**

**Transforming learning and teaching through inquiry for responsible citizenship**

The increased scientific and technological innovation activity of recent times has led to calls for a renewed role for citizens. At the forefront lie many new exciting possibilities for advancement, which, at the same time, bear the possibility of risks with unknown consequences for all. The European Commission's key priority on Responsible Research and Innovation (RRI) is indicative of the consensus for active citizenship: RRI seeks to mobilize different sectors of society so that all citizens understand that humans, more than ever, have an important responsibility in the process and outcomes of scientific and technological developments. Education is also expected to contribute to achieving the RRI goals, as it can support the development of critical skills and knowledge to shape a rapidly evolving world. In this talk, I will discuss ongoing efforts to integrate the RRI ideas in inquiry science education. I will first present SSIBL, a pedagogical framework developed by the PARRISE consortium for promoting active citizenship through inquiry-based science, and present examples from our research, with teachers and students, using the theoretical lenses of participatory and collaborative design, and design-based research. SSIBL couples inquiry learning and democratic dialogue, as powerful motivators that can engage students with authentic problems in controversial socio-scientific contexts, and encourage them to engage with the ethical dimensions of our individual and collective actions driving innovation. I will conclude with a discussion of lessons learned and explain how they can serve the goal of transforming learning and teaching through inquiry, to prepare students who can engage in productive dialogue regarding ethical dilemmas in modern controversies.

**KEYNOTE 4 – Thursday, 11.10.2018 (10:30 - 12:00) - Mandel auditorium**



**Cindy Hmelo-Silver**

**From robots to sparrows: Technology-supported inquiry learning across time and space**

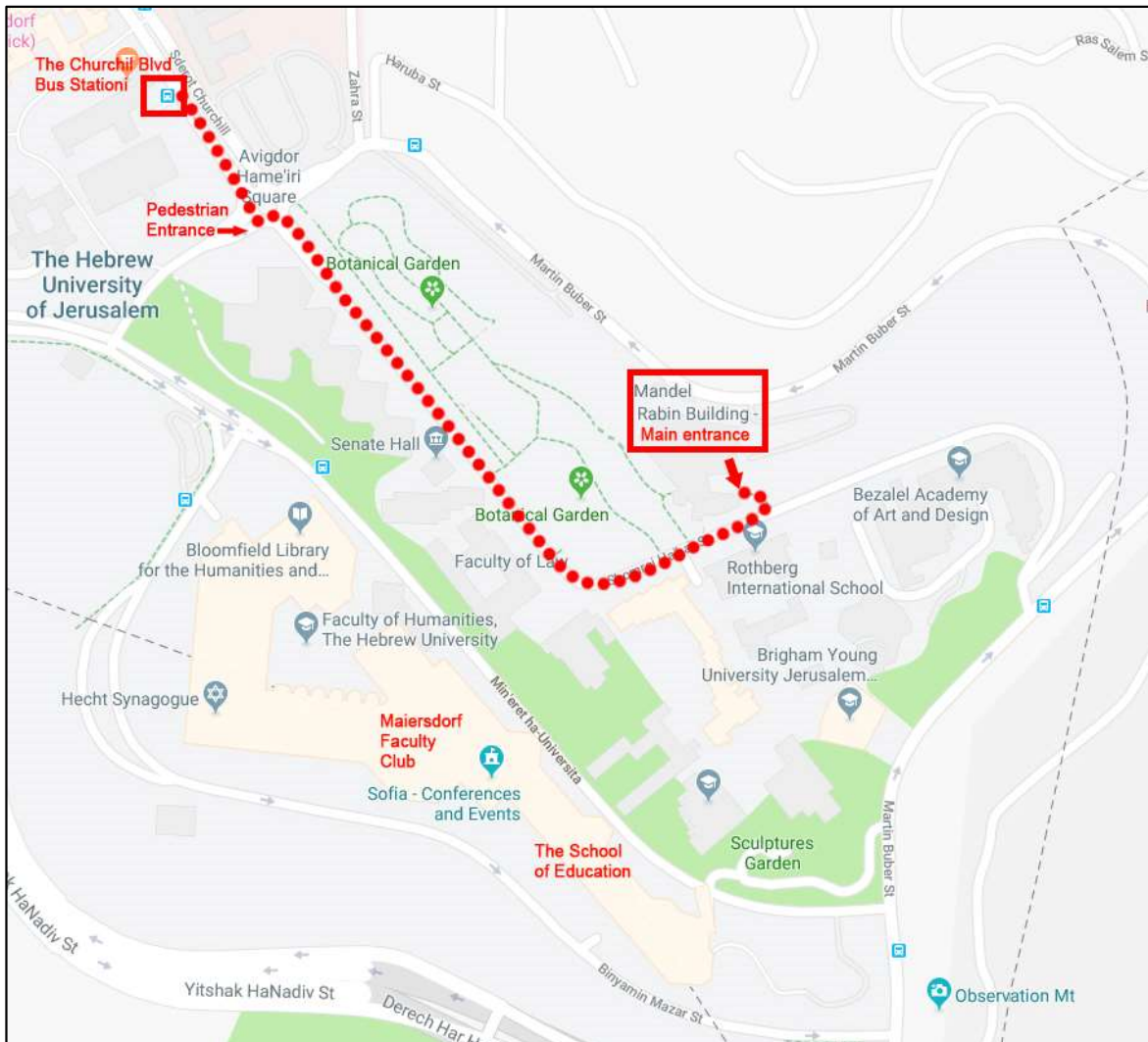
Technology has created new forms of inquiry that can support learning and engagement across the lifespan. The results of a recent synthesis report show that indeed, the most robust uses of computer-supported collaborative learning in STEM domains are to support inquiry. From citizen scientists working on locally relevant problems over time to secondary students using technology to communicate across space, STEM inquiry can serve as a path to civic engagement. In this presentation, I will talk about the use of computer-supported collaborative learning to support inquiry, in particular, how different combinations of technologies, pedagogies, and modes of collaboration interact. In particular, I will consider how the recent Jeong & Hmelo-Silver framework of Seven Affordances for Computer-Supported Collaborative Learning has been instantiated in recent citizen science and robotics projects, ways that they have the potential to support civic engagement, and conjectures about opportunities realized and challenges faced.

## Conference Venue Maps

### Day 1-3: Rabin/Mandel building, Mt Scopus campus of the Hebrew University

Arrival by bus: Get off at the Churchill Blvd bus stop (near coffee place AROMA) and walk to the pedestrian entrance. Follow map below to Rabin/Mandel building by foot (5 min).

From the Dan Jerusalem hotel: Follow Churchill Blvd uphill, enter the pedestrian entrance (map below)



### Day 4: Beit Maierdorf Faculty Club, Mt Scopus campus of the Hebrew University

Arrival by bus: Get off at the final Mt Scopus stop (in the tunnel). Enter building, take escalator to next floor and walk straight until you see the Faculty club (after the Vitamin coffee stand) - 5 min walk.

From the Dan Jerusalem hotel: Follow Churchill Blvd uphill, enter the pedestrian entrance, walk about 150 meters, then enter the main building entrance on your right after about 150 meters, cross the hallway into the courtyard. Follow signs there to Beit Maierdorf Faculty Club.

By car: enter the Humanities main parking entrance, and follow signs to Beit Maierdorf.

## Programme at a Glance

<b>Tuesday, October 9<sup>th</sup>, 2018 – Rabin/Mandel buildings</b>	
09:15-10:00	Registration and coffee
10:15-10:30	Welcome
10:30-12:00	Keynote 1: Robin Alexander
12:00-13:00	Lunch
13:00-14:30	Parallel sessions A
14:30-15:00	Refreshment break
15:00-16:30	Parallel sessions B
16:30-18:30	Reception & posters
<b>Wednesday, October 10<sup>th</sup>, 2018 – Rabin/Mandel buildings</b>	
08:30-10:00	Parallel sessions C
10:00-10:30	Coffee break
10:30-12:00	Keynote 2: Eleni A. Kyza & Keynote 3: Hugo Mercier
12:00-13:00	Lunch
13:00-14:30	Parallel sessions D
14:30-15:00	Refreshment break
15:00-16:30	Parallel sessions E
16:30-	Conference dinner incl walk (optional)
<b>Thursday, October 11<sup>th</sup>, 2018 – Rabin/Mandel buildings</b>	
08:30-10:00	Parallel sessions F
10:00-10:30	Coffee break
10:30-12:00	Keynote 4: Cindy Hmelo-Silver
12:00-13:00	Lunch
13:00-14:30	Parallel sessions G
14:30-15:00	Refreshment break
15:00-16:30	Parallel sessions H
16:30-	Tour Old City (optional)
<b>Friday, October 12<sup>th</sup>, 2018 - Beit Maersdorf building</b>	
08:30-10:00	Parallel sessions I
10:00-10:30	Coffee break
10:30-12:00	Parallel sessions J
12:00-13:15	Lunch & SIG business meetings

## Detailed programme

**Tuesday, 9.10.2018 - Rabin & Mandel buildings**

### Welcome (10:15-10:30)

ROOM: Rabin auditorium

### Keynote 1 (10:30:12:00): Robin Alexander

ROOM: Rabin auditorium

### Parallel Sessions A (13:00-14:30)

#### PAPER SESSION 1: Teaching & Teacher education [SIG 20]

ROOM: Mandel 530

The contribution of reflective activities to growth in teachers' epistemic ideals and processes -  
*Shiri Mor-Hagani & Sarit Barzilai*

Inquiry is NOT for everyone: A case study of science teachers' team regarding inquiry learning -  
*Shani Zur, Tali Tal, & Racheli Levin-Peled*

Promoting preservice teachers' inquiry learning by classroom-integrated research - *Hanna Teräs, Mirjamaija Mikkila-Erdmann, & Tuike Iiskala*

Explorations in a continuum of observation-based knowledge in a field geology setting - *Lauren Barth-Cohen & Sarah Braden*

#### PAPER SESSION 2: Novel interfaces and interactions [SIG 20]

ROOM: Rabin 3001

Applying coordination dynamics to technologically-based embodied mathematics learning -  
*Rotem Abdu, Dor Abrahamson, Arthur Bakker, & Shakila Shayan*

Interacting with the forces underlying chemical bonding using ELI-Chem simulation - *Asnat R. Zohar & Sharona T Levy*

Designing for semantic coupling: The impact of physical objects in inquiry-based AR activities -  
*Yiannis Georgiou & Eleni Kyza*

#### PAPER SESSION 3: Teacher dialogue and student outcomes [SIG 26]

ROOM: Rabin auditorium

Teacher-student dialogue in classrooms: Does it really make a difference to student outcomes? -  
*Christine Howe, Sara Hennessy & Neil Mercer*

On the relationship between student participation in classroom discourse and student achievement - *Klara Sedova & Roman Švaříček*

Impact of a teacher-facilitated TPD program for dialogue in primary mathematics - *Elisa Calcagni, Sara Hennessy, Valeska Grau, Florencia Canessa, Francisco López & Valentina Munizaga*

Training teachers and students for quality talk: Secondary students use of critical thinking -  
*Katharina Kiemer & Maree Davies*

**PAPER SESSION 4: Learning to orchestrate dialogue and argumentation [SIG 26]**

**ROOM: Rabin 2001**

Learning student-teachers to orchestrate a classroom discussion for reasoning - *Sonia Abrantes Garcez Palha & Daan van Smaalen*

Learning to facilitate dialogue for argumentation: An analysis of teacher professional development - *Ian A.G. Wilkinson & Alina Reznitskaya*

In the context of Lesson Study: What did teachers learn about promoting peer talk in groups? - *Anne Mette Færøyvik Karlsen*

Supporting sixth graders to evaluate information in the Web: An intervention study - *Elina Hämäläinen, Carita Kiili, Miika Marttunen, Eija Räikkönen, Roberto Gonzalez Ibanez & Paavo H.T. Leppänen*

**Parallel Session B (15:00-16:30)**

**PAPER SESSION 5: Teacher-student interactions [SIG 20]**

**ROOM: Mandel 530**

Inquiry-based learning: Prosodic approach as a method to study teacher talk - *Raija Hamalainen, Bram De Wever, Teija Waaramaa, Anne-Maria Laukkanen, & Joni Lämsä*

“Figuring It Out” together: Problematizing as a core component of model-based learning - *John F. Smith & Brian J. Reiser*

Facilitating learning of practices of doing science - *Maayan Schvartzer & Shulamit Kapon*

Fostering the development of elementary students’ motivation and argumentation in blended classrooms - *Narmada Paul, Tzu-Jung Lin & Michael Glassman* (remote presentation)

**PAPER SESSION 6: Teachers’ practices, beliefs and attitudes [SIG 20]**

**ROOM: Rabin 3001**

Inquiry-based learning in teacher training? Effects on student teachers’ beliefs - *Michiel Voet & Bram De Wever*

Pre-service pre-school teachers’ self-efficacy, attitudes and beliefs towards early science teaching - *Michaella Kadury-Slezak & Yael Kesner Baruch*

Evidence-based reasoning of pre-service teachers: A script perspective - *Katharina Kiemer & Ingo Kollar*

When prior beliefs contradict evidence from educational research - *Eva Thomm, Johannes Bauer, Bernadette Gold, & Tilmann Bets*

**PUBLIC DEBATE: In search of controversies and consensus on classroom dialogue [SIG 26]**

**ROOM: Rabin auditorium**

*Provocateur: Christa Asterhan*

*Panel speakers: Aline Reznitskaya, Christine Howe, Eugene Matusov, Adam Lefstein*

We warmly invite the audience to take actively part in this public debate.

## **PAPER SESSION 7: Tools for analysing dialogue and argumentation [SIG 26]**

### **ROOM: Rabin 2001**

Developing of an instrument for examining teacher's attitudes toward argument-based teaching

- *Ida Kukliansky & Haim Eshach*

Analysis of argumentation moves in a modeling assessment - *Veronica Cavera, Ravit Duncan & Clark Chinn*

The development and validation of an observation tool for classroom dialogue - *Maria Vrikki & Leonidas Kyriakides*

Frames of explorative and ritual instruction as reflected in teachers' discourse - *Galit Shabtay & Einat Heyd-Metzuyanin*

## **Reception and Poster session I (16:30-18:30)**

### **ROOM: Rabin foyer 1<sup>st</sup> floor**

#### **I. Argumentation and dialogue in the disciplines**

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2. Deductive Reasoning - Elementary pupils' use of everyday conditional reasoning skills in mathematics - *Anastasia Datsogianni, Stefan Ufer & Beate Sodian*

3. Ludic engagement to support argumentation practices of chemistry pre-service teacher - *Ariane Baffa Lourenco, Salete Linhares Queiroz & Armin Weinberger*

4. Validating a simulated learning environment to foster collaborative clinical reasoning - *Anika Radkowsch, Martin R. Fischer, Ralf Schmidmaier & Frank Fischer*

#### **II. Democracy and civic education**

5. Dialogic education through Heutagogy and its potential implication to democratic education - *Amnon Glassner & Shlomo Back*

6. The multidisciplinary study of democratic discourse and learning in classrooms - *Susan Mayer, Adam Lefstein & Catherine O'Connor*

7. Fake news and a growing need for learning to argue: A study 16- year-old Norwegian students - *Eyvind Elstad & Nora Mathe*

8. "What counts as good argumentation?": The case of socio-scientific argumentation - *Olga Ioannidou, Andreas Hetmanek, Frank Fischer & Tina Seidel*

#### **III. Analysis and assessment of group discussions**

9. The middle way: The critical questions model of argument assessment - *Michael Nussbaum & Ian Dove*

10. University students' peer to peer knowledge sharing practices via SNS – A network analysis approach - *Edith Bouton*

11. Styles of scientific reasoning: An empirical study of the different ways how scientists reason - *Gina Scappucci, Frank Fischer & Christopher Osterhaus*

12. DiCE constituents of productive disagreement: A framework for describing argument productivity - *Randi Zimmerman, Na'ama Av-Shalom, Ravit Duncan & Clark Chinn*

#### **IV. Supporting Argumentation**

13. Student discourse in class is important: How can we make it happen? - *Susan H Picker & Ben Peled*

14. Effects of worked examples and external scripts on social work students' fallacy revelation scripts - *Florian Spensberger, Ingo Kollar, Sabine Pankofer & Eileen Gambrill*

15. Educating students to consistency via argumentation - *Elisabetta Montanari*

16. Teaching argumentation, dialectics and dialogism - *Nitza Shachar*



## V. Inquiry Learning 1

17. Games and historical reasoning - *Matti Rautiainen & Anna Veijola*
18. Reasoning about the past to build the future: studying history and becoming active citizens - *Luisa Zecca & Claudia Fredella*
19. Investigating the co-construction of knowledge in an AR inquiry learning environment - *Markos Souropetsis & Eleni Kyza*
20. Arguing with and representing data: Engaging young adults in data-informed science news reporting - *Engida Gebre*
21. Productive failure and splashes of creativity: A case study - *Alik Palatnik & Boris Koichu*
22. The development of metacognitive skills of business students during collaborative inquiry learning - *Mirjami Ikonen*
23. A confluence model of problem-based learning and teaching - *Boris Koichu*
24. Dynamics of knowledge between university and workplace bodies in professional education curricula - *Ayelet Becher & Lily Orland-Barak*

## Wednesday, 10.10.2018 – Rabin & Mandel buildings

### Parallel Sessions C (08:30-10:00)

#### PAPER SESSION 8: Learning environments [SIG 20]

ROOM: Rabin 3001

Long term impact: Students' inquiry through the lens of time - *Einat Gil*

Agent-based models to support informal scientific inquiry among youth with type 1 diabetes - *Ilana Dubovi, Efrat Dagan, Milana Levy, Nehama Zuckerman-Levin, & Sharona Levy*

How can the knowledge community and inquiry model support socioscientific reasoning? - *Hava Ben-Horin, Yael Kali, Tali Tal, & Ornit Sagy*

Fostering learning culture via knowledge community and inquiry approach - *Carmit Pion & Yael Kali*

#### SYMPOSIUM 1: Student learning and epistemic progress in dialogic teaching I [SIG 26]

ROOM: Mandel auditorium

Chair: *Jonathan Osborne*, Discussant: *Anat Zohar*

Identifying epistemic growth in dialogic instruction: An apt epistemic performance approach - *Na'ama Av-Shalom, Sarit Barzilai, Ravit Golan Duncan & Clark Chinn*

Reasoned dialogue and epistemic growth: A comparison of teacher-led and small-group interaction - *Christine Howe, Neil Mercer & Sara Hennessy*

The epidemic effect of scaffolding argumentation from small groups to whole-class - *Baruch Schwarz & Irit Cohen*

**SYMPOSIUM 2: Looking back and moving forward: Synthesize best evidence from L&I research**

[SIG 26]

**ROOM: Rabin auditorium**

*Chair Freydis Vogel, Discussant: Kris Lund*

Good for learning, bad for motivation? A meta-analytic argument on a widespread view on CSCL scripts - *Anika Radkowsch, Freydis Vogel & Frank Fischer*

In pursuit of inclusion: Summarizing (quasi)-experimental computer-based scaffolding research - *Andrew Walker, Brian Belland, Nam Ju Kim & Mason Lefler*

Using cluster analysis to guide meaningful CSCL meta-synthesis - *Cindy Hmelo-Silver, Heisawn Jeong & Jessica McKeown*

Teaching and learning about complex systems in K–12 science education: A review of empirical studies - *Susan Yoon, Sao-Ee Goh & Miyoung Park*

**PAPER SESSION 9: Aids for argumentation [SIG 26]**

**ROOM: Rabin 2001**

The contribution of graphic organizers to integration of multiple information sources - *Talia Shlomi Elooz & Sarit Barzilai*

Meta-level inquiry learning through argumentative scaffolding: Power of tech-aided individualization - *Toi Sin Arvidsson & Deanna Kuhn*

Supporting analysis of subjects and vulnerability in argumentation with computational models - *Yohan Jo & Carolyn Rose*

Realising 'dialogic intention' through the use of a micro-blogging tool in secondary classrooms - *Victoria Cook, Paul Warwick, Maria Vrikki, Louis Major & Ingwill Rasmussen*

**Keynote 2 (10:30:12:00) - Hugo Mercier**

**ROOM: Rabin auditorium**

**Keynote 3 (10:30:12:00) - Eleni Kyza**

**ROOM: Mandel auditorium**

**Parallel Sessions D (13:00-14:30)**

**ICT DEMO SESSION [SIG 20]**

**ROOM: Rabin 3001**

Kids as urban scientists: Mobile apps for youth mapping the biodiversity of urban regions - *Nancy Songer*

Toolbox teacher education - Teaching and learning in the digital age - *Silke Schiffhauer, Doris Lewalter, Jürgen Richter-Gebert, & Maria Bannert*

Inquiry-oriented and formative supervision in teacher training - *Eyvind Elstad*

**PAPER SESSION 10: Argumentation and knowledge construction I [SIG 26]**

**ROOM: Mandel auditorium**

Argument, tension and relaxation in group-creativity training - *Michael J. Baker & Françoise Détienne*

Peer dialogue in Literacy: collaborative meaning-making in multimodal reading contexts - *Fiona Maine, Riikka Hofmann & Sylvia Rojas-Drummond*

Collaboration in argumentation and argumentation in collaboration: Chavruta processes among learners - *Reuven Ben-Haim, Zvi Bekerman and Baruch Schwarz*

Counter-arguing with peers, but not hearing counter-arguments, facilitates students' learning -, *Antonia Larrain, Paulina Freire, Patricia López & Valeska Grau*

**SYMPOSIUM 3: Learning to argue from evidence [SIG 26]**

**ROOM: Rabin auditorium**

*Chair: Kalypto Jordanou, Discussant: Sarit Barzilai*

Collective argumentation skills - *Lida Klaver & Laurence Guerin*

Exploring how elementary school students argue during modeling in a science lesson - *Maria Evagorou, Christiana Nicolaou & Chrystalla Lympouridou*

Supporting evidence use and knowledge acquisition through engagement in argumentation - *Kalypto Jordanou & Deanna Kuhn*

Developing middle school students' ability to use evidence in essays - *Yuchen Shi, Flora Matos & Deanna Kuhn*

**SYMPOSIUM 4: Social, cognitive and affective aspects of collaborative teacher inquiry [SIG 26]**

**ROOM: Rabin 2001**

*Chair: Dana Vedder-Weiss, Discussant: Ilana Horn*

Collaborative inquiry into practice in teacher teams: The role of group activity type - *Miriam Babichenko & Christa Asterhan*

Deliberative and disputative discourse in teacher disagreements about assessment practices - *Rotem Trachtenberg-Maslaton, Dana Vedder-Weiss, Adam Lefstein & Mirit Israeli*

Narrative exchange in teacher collaborative inquiry - *Aliza Segal*

**Parallel Sessions E (15:00-16:30)**

**PAPER SESSION 11: Collaborative inquiry [SIG 20]**

**ROOM: Rabin 2001**

Supporting collaborative inquiry learning for students using simulations and chat messaging - *Leo Aleksander Siiman, Margus Pedaste, Mario Mäeots, Meeli Rannastu, & Äli Leijen*

Visualising collaborative inquiry-based learning processes in technology-enhanced physics learning - *Joni Lämsä, Raija Hamalainen, Pekka Koskinen, & Jouni Viiri*

Moderating preadolescents prior beliefs about organic food: the impact of contradictory arguments - *Colin Lescaudet, Franck Amadieu*

**PAPER SESSION 12: Epistemic cognitions and controversies [SIG 26]**

**ROOM: Mandel auditorium**

Epistemic cognition when students evaluate scientific controversies - *Fabian Lang, Yvonne Kammerer, Kathleen Stürmer & Peter Gerjets*

Epistemic Cognition on Social Knowledge and Early Adolescents' Small-Group Discussions - *Seung Yon Ha & Tzu-Jung Lin*

The developmental roots of knowing: Interpretive theory of mind and subjectivist epistemology - *Michael Weinstock*

Evaluating the quality of argumentation: Going beyond structure to incorporate epistemic practices - *Clark Chinn & Ravit Duncan*

**SYMPOSIUM 5: Dialogic interpretative practices and their contribution to continuity/change in religious education [SIG 26]**

**ROOM: Rabin auditorium**

*Chair: Baruch Schwarz, Discussant: Zvi Bekerman*

Guided Hermeneutics in Islam: Interpreting Quran in harmony with the intentions of the Lawgiver - *Ayman K. Agbaria*

"Jew" and "Judaism" in contemporary Catholic discourse: A revolution in interpretation - *David M. Neuhaus*

Protestant exegesis - *Jean Zumstein*

Early Hasidic Hermeneutics and the limits of creativity - *Benjamin Brown*

**SYMPOSIUM 6: Dialogic pedagogy in conventional schools [SIG 26]**

**ROOM: Rabin 3001**

*Chair: Yifat Ben-David Kolikant, Discussant: Rupert Wegerif*

Bakhtinian pedagogy in conventional educational institutions - *Eugene Matusov, Ana Marjanovic-Shane & Mikhail Gradovski*

Compelling student voice: Dialogic practices of public confession - *Adam Lefstein, Aliza Segal & Itay Pollak*

A dialogic approach to teacher professional development in schools: A case study - *Yifat Ben-David Kolikant & Vered Resnick*

Dialogic teaching: Whole class instruction of a literacy event across time and repertoire - *Maureen Boyd, Valentyna Mykula & Youngae Choi*

## Thursday, 11.10.2018 – Rabin & Mandel buildings

### Parallel Sessions F (08:30-10:00)

#### **PAPER SESSION 13: Evaluating inquiry learning [SIG 20]**

##### **ROOM: Mandel 530**

False positives and false negatives in inquiry assessment: Investigating log and open response data - *Rachel Dickler, Janice Gobert, & Haiying Li*

Primary School Inquiry Skills Assessment (PSISA) test - *Margus Pedaste, Elle Reisenbuk, Aleksander Baucal, & Meelis Brikker*

Automatically assessing scientific explanations in online inquiry - *Haiying Li, Janice Gobert, & Rachel Dickler*

Assessing student's ability to control variables: The impact of test format and sub-skills - *Martin Schwichow*

#### **PAPER SESSION 14: Inquiry in primary education [SIG 20]**

##### **ROOM: Rabin 2001**

Online inquiry profiles among six-graders- how do they search and write from multiple sources? - *Norbert Erdmann, Mirjamaija Mikkila-Erdmann, Marja Vauras, & Eero Sormunen*

Promoting inquiry learning in elementary school children - *Julia Schiefer, Jessika Golle, Kerstin Oschatz, & Ulrich Trautwein*

How to develop critical inquiry reasoning? Evidence-based educational research at primary school - *Sander Emmanuel, Pasquinelli Elena, & Calliste Scheibling*

Citizen science in schools: Building mutually-beneficial partnerships between schools and scientists - *Osnat Atias, Maya Benicho, Rachel Levin- Peled, Ornit Sagy, Ayelet Baram-Tsabari, & Yael Kali*

#### **SYMPOSIUM 7: Bridging dialogue, inquiry and argumentation: A necessary synergy for 21<sup>st</sup> century education [SIG 26]**

##### **ROOM: Mandel auditorium**

*Chair: Chrysi Rapanta, Discussant: Baruch Schwarz*

Towards defining the effectiveness of classroom-based dialogue - *Mark Felton & Chrysi Rapanta*

Culturally relevant pedagogy through the discussion of socio-scientific issues? - *Maria Evagorou*

Dialogue as a central concept in the promotion of cultural literacy - *Fiona Maine*

**PAPER SESSION 15: Argumentation and knowledge construction II [SIG 26]**

**ROOM: Rabin 3001**

Learning by arguing - *Deanna Kuhn, Kalypto Jordanou, Flora Matos, Yuchen Shi & Laura Hemberger*

To argue or not to argue? Influencing factors of student's participation in classroom discussions - *Sabine Manzel & Dorothee Gronostay*

Desirable and undesirable disagreements: Jewish women studying the Talmudic texts - *Esty Teomim-Ben Menachem*

"I'm not disagreeing...I'm just saying": Supporting authentic argumentation in science classrooms - *Brian Reiser & Aliza Zivic*

**Keynote 4 (10:30:12:00) – Cindy Hmelo-Silver**

**ROOM: Mandel auditorium**

**Parallel Sessions G (13:00-14:30)**

**PAPER SESSION 16: Inquiry in higher education [SIG 20]**

**ROOM: Rabin 2001**

Prompts to foster critical thinking in a laboratory undergraduate course - *Lilian Danial, Jenna Koenen, & Rüdiger Tiemann*

Explaining expert disagreement adaptively - *Eva Thomm, Sarit Barzilay, & Rainer Bromm*

**PAPER SESSION 17: Informal reasoning, argumentation and controversies [SIG 26]**

**ROOM: Mandel 530**

Informal reasoning on energy resource distribution through socioscientific pedagogy - *Hagit Shasha-Sharf & Tali Tal*

Some reasons for considering scientific reasoning and argumentation as a set of cross-domain skills - *Frank Fischer, Andreas Hetmanek, Katharina Engelmann & Ansgar Opitz*

Resolving ambiguity during anatomical identification work - *Victor Lee & Ilana Dubovi*

Culture, social change, formal education, and shifts in epistemic perspective - *Michael Weinstock, Turky Abu Aleon, Adriana Manago & Patricia Greenfield*

**SYMPOSIUM 8: Promoting scientific argumentation and learning with competing models and contradictory evidence [SIG 26]**

**ROOM: Rabin 3001**

*Chair: Ravit Duncan, Discussant: Clark Chinn*

Refutation text and argumentation to promote conceptual change on the topic of natural selection - *Christa Asterhan & Maya Resnick*

Refutational strategies in arguments about competing mechanistic models of a genetic phenomenon - *Ravit Duncan & Veronica Cavera*

Learning using contradictory texts promotes students' critical thinking - *Anat Yarden & Moriah Ariely*

**SYMPOSIUM 9: The role of argumentation in schools towards the constitution of a deliberative democracy [SIG 26]**

**ROOM: Mandel auditorium**

*Chair: Michael Baker, Discussant: Aviv Cohen*

Rhetoric as a tool for education - *Emmanuelle Danblon*

Heated discussions in small group political education strand - *Efrat Firer & Benzi Slakmon*

Walking on a tightrope: Controversy work of Civic teachers, the Israeli case - *Adar Cohen*

**Parallel Sessions H (15:00-16:30)**

**PAPER SESSION 18: Motivational, social and affective processes [SIG 20]**

**ROOM: Rabin 2001**

Situational interest trajectories within and across domains in inquiry-based science education - *Tomi Jaakkola, Margus Pedaste*

Self-learning dispositions as reflected during research apprenticeship program - *Merchi Edry, Irit Sasson, & Dori Yehudit*

Exploring students' performance in a SRL-supported, scientific inquiry, i-STEM learning environment - *Marion Crauwels, Tim Ramaekers, Geert Van De Water, Daan Moechars, & Carla Schramme*

**SYMPOSIUM 10: Reconciling construction and critique in argument instruction [SIG 26]**

**ROOM: Mandel 530**

*Chair: Flora Matos & Bryan Henderson, Discussant: Antonia Larrain*

Oral and written assessments to distinguish construction/co-construction and critique - *Bryan Henderson, April Holton, Nicole Zillmer, & Earl Aguilera*

Students' developmental pathways: Internalization of argumentative semiotic regulators - *Gabriel Macedo & Nancy Ramírez*

Collaborative writing as a bridge between dialogic and individual argumentation - *Flora Matos & Deanna Kuhn (remote presentation!)*

**SYMPOSIUM 11: The interactive circulation of affect in educational situations: multi-disciplinary perspectives [SIG 26]**

**ROOM: Mandel auditorium**

*Chair: Michael Baker, Discussant: Baruch Schwarz*

Emotions in language and interactions: A memo - *Christian Plantin*

Thinking and talking about emotions. Challenges and emotion regulation in collaborative learning - *Piia Naykki, Hanna Jarvenoja, Jaana Isohätälä & Sanna Järvelä*

The educational goal of cultivating emotions in democracy - *Benzi Slakmon*

**POSTER SESSION II**

**ROOM: Rabin 3001**

*Chair and discussant: Chrysi Rapanta*

**I. Teaching practice and development of teaching skills**

1. The becoming teacher's identity contradiction in the professional construction - *Jiří Kropáč, Danping Peng, Stefan Chudy & Iva Koribská*
2. Readiness of students as future school teachers for professional activity  
*Nataliia Demeshkant, Katarzyna Potyrala, Karolina Czerwiec & Ludmila Dankevych*
3. Using YouTube as a dialogic space for pre-service teachers' course on CSCL - *Rotem Abdu*
4. Whose mandate is it? Science teachers' thoughts of SSI implementation in science classrooms - *Yael Shwartz & Emil Eidin*
5. Teacher frameworks in dialogic science discussions - *Sherice Clarke, Jessica Miguel, Melissa Warstadt, Katherine Garcia & Ramon Stephens*
6. Exploring the use of the Three Domains for Dialogue framework for designing and interrogating TPD - *Leonardo Lago & Elisa Calcagni*

**II. The social context for argumentation and reasoning**

7. Non ionizing radiation on Facebook: Discussion patterns on social media - *Keren Dalyot & Ayelet Baram-Tsabari*
8. Characteristics of argumentative thinking among of Haredi students - *Ehud Tsemach & Anat Zohar*
9. Haredi computer-science students: How does their unique background influence their academic studies? - *Sarah Genut & Yifat Ben-David Kolikant*
10. Connections between cognitive demand of task, students' struggle and explicit attention to concepts - *Einat Heyd-Metzuyanim, Talli Nachlieli & Merav Weingarden*

**III. Inquiry Learning 2**

11. Measuring teacher educators' knowledge, beliefs and attitudes toward evidence-based teaching practices - *Despoina Georgiou, Sog Yee Mok, Frank Fischer, & Tina Seidel*
12. Teacher views on inquiry learning: The contribution of diverse experiences in outdoor environment - *Rachel Levin- Peled, Keren Levy, & Tali Tal*
13. Teachers' attitudes towards students' creativity and using educational interactive tools - *Karolina Czerwiec, Katarzyna Potyrala, Emanuel Studnicki & Wioletta Skrzypek*
14. Regularities in the long-term mathematical student projects - *Alik Palatnik*
15. Supporting student efforts to frame (and pursue) academically substantive inquiries - *Susan Mayer*



## Friday, 12.10.2018 – Beit Maierdorf building

### Parallel Sessions I (08:30-10:00)

#### PAPER SESSION 19: Learning processes [SIG 20]

##### ROOM: Room 501

Teaching for versus teaching through problem solving in secondary education - *Annelies Raes, Marieke Pieters, & Fien Depaepe*

Inquiry practices related to paths of logical transitions between inquiry questions - *Zohar Snapir, Galit Karadi, & Michal Zion*

Vary one category at a time: Does VOTAT account for the interleaving effect in category induction? - *Roman Abel & Matthias Brunmair*

The Role of Conceptualizations of Learning in Civic Learning through Inquiry - *Jonan Donaldson*

#### SYMPOSIUM 12: Evidence-based reasoning for decisions in the classroom: Teachers, trainees and teacher trainers [SIG 26]

##### ROOM: Room 502

Chair: *Freydis Vogel*, Discussants: *Michael Nussbaum and Frank Fischer*

Challenges for teacher trainers to teach evidence-based Reasoning Skills - *Annika Diery & Freydis Vogel*

Teachers' Use of Scientific and Subjective Theories when Reasoning about Technology in Classrooms - *Christina Wekerle & Ingo Kollar*

Pre-Service Teachers' Evidence-Based Argumentation Competence: Argumentative Quality in Discussions - *Sandra Wenglein*

#### PAPER SESSION 20: Civic reasoning and deliberative argumentation [SIG 26]

##### ROOM: Room 503

Connecting scientific argumentation and deliberative public discourse: Three theoretical frameworks - *Michael Ford*

Deliberative dialogue and the nature of constructive argument: A study of novice and expert discourse - *Mark Felton & Amanda Crowell*

The educational significance of different theories of dialogue - *Rupert Wegerif*

### Parallel Sessions J (10:30-12:00)

#### PAPER SESSION 21: Metacognition & self-regulation [SIG 20]

##### ROOM: Room 501

Indications of metacognition and self-regulation among pre-schoolers during Scientific Inquiry - *Ronit Fridman, Sigal Eden, & Ornit Spektor-Levy*

The role of working memory capacity in a multi-dimensional category-learning - *Önne Uus, Paul Seitlinger, & Tobias Ley*

Trying to do too much? A critical examination of large scale implementation of inquiry learning - *Anat Zohar*

**SYMPOSIUM 13: Student learning and epistemic progress in dialogic teaching II [SIG 26]**

**ROOM: Room 502**

*Chair: Jonathan Osborne, Discussant: Rupert Wegerif*

Teachers Learning to Facilitate Inquiry Dialogue with the Argumentation Rating Tool - *Alina Reznitskaya & Ian A.G. Wilkinson*

Constructivism and epistemic progress in Israeli primary classes: The view from epistemic practices - *Itay Pollak & Adam Lefstein*

How does critique support epistemically productive talk in science? - *Emily Reigh & Jonathan Osborne*

**SYMPOSIUM 14: Argumentation, emotion and scripting: learning sciences and interactive narrative design [SIG 26]**

**ROOM: Room 503**

*Chair: Kristine Lund, Discussant: Michael Baker*

Reducing complexity with userly texts: Multi-Linear scripts in interactive digital narrative design - *Noam Knoller, Christian Roth & Hartmut Koenitz*

Scripting dynamic cognitive and socioemotional processes - *Dimitra Tsovaltzi, Thomas Puhl, Lara Johanna Schmitt & Armin Weinberger*

Can experiencing non-linear scripting affect argumentative emotional positioning? - *Claire Polo*

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