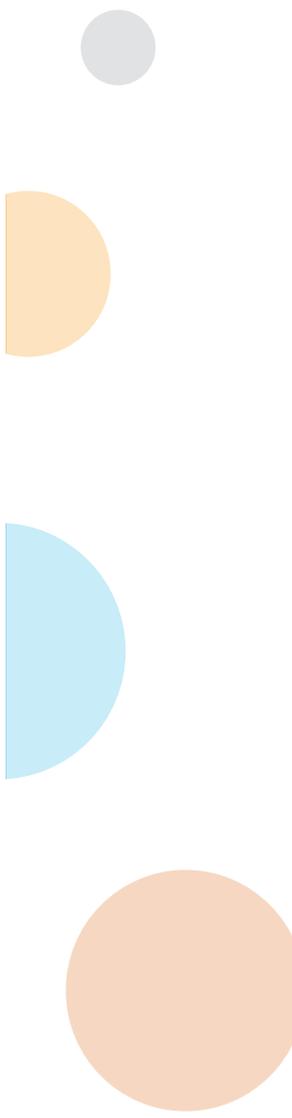


# Researching and advancing learning that connects

Kristiina Kumpulainen

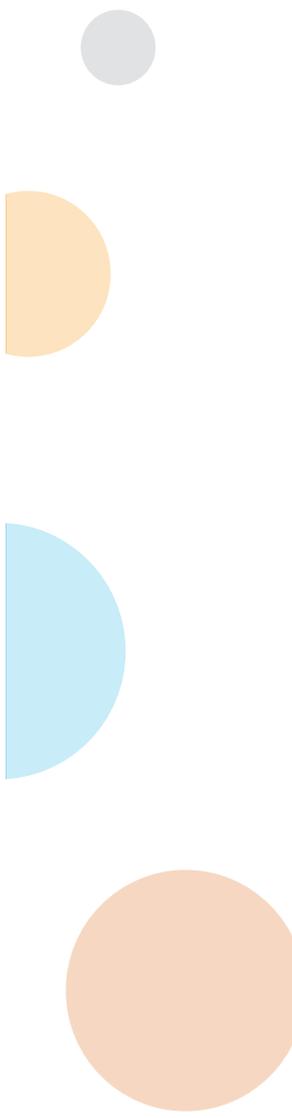
BLE conference  
November 17-19, 2016  
Barcelona, Spain





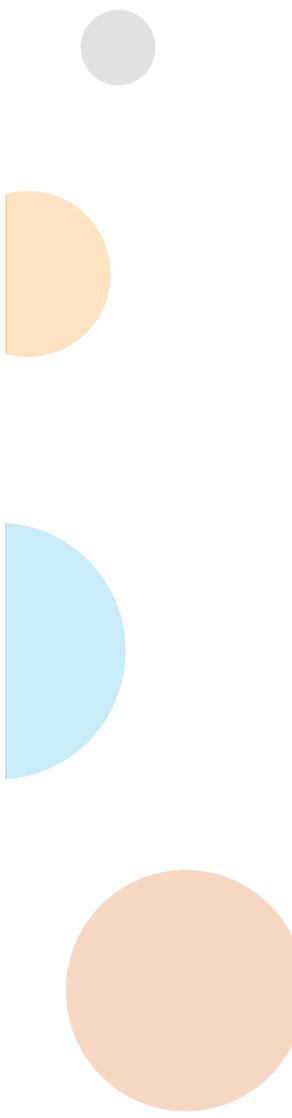
# The secret of Finnish education

- ✓ Drinking more coffee per capita than any other nation
- ✓ Having and taking the most saunas of any other country in the world
- ✓ Eating fish nearly every day
- ✓ Speaking Finnish
- ✓ Believing in the power of play
- ✓ Investing in the highest quality preparation for all teachers
- ✓ All above?



# Cornerstones of the Finnish education system

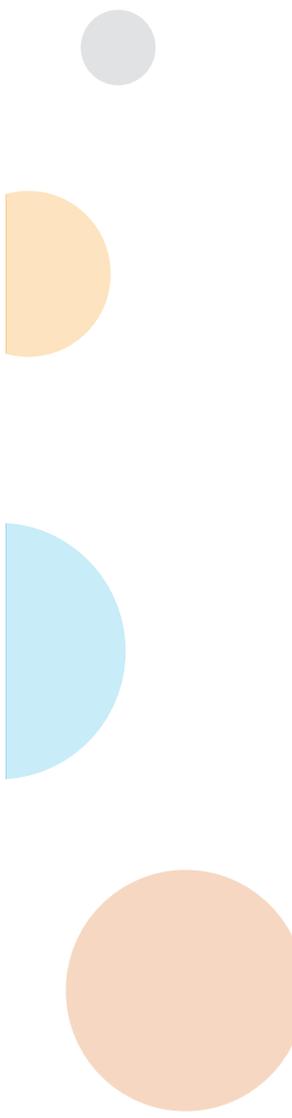
- The principle of equal educational opportunity
- Teaching profession highly qualified, valued and trusted
- Local autonomy and de-centralisation
- Holistic development of learners – wellbeing matters too!
- Promotion of lifelong and lifewide learning



*“In other courses we sit and read, there are textbooks and note-taking, a fast pace in everything. There is one book per course... Mostly you just sit in the classroom, write and listen. ”*

### Student interview

Rajala, A., Hilppö, J., Lipponen, L., & Kumpulainen, K. (2013). Expanding the Chronotopes of Schooling for Promotion of Students' Agency. In O. Erstad & J. Sefton-Green (Eds.), *Identity, Community, and Learning Lives in the Digital Age* (pp.107-125). Cambridge: Cambridge University Press.



# Are our schools responding to students' lives and 21<sup>st</sup> century requirements?



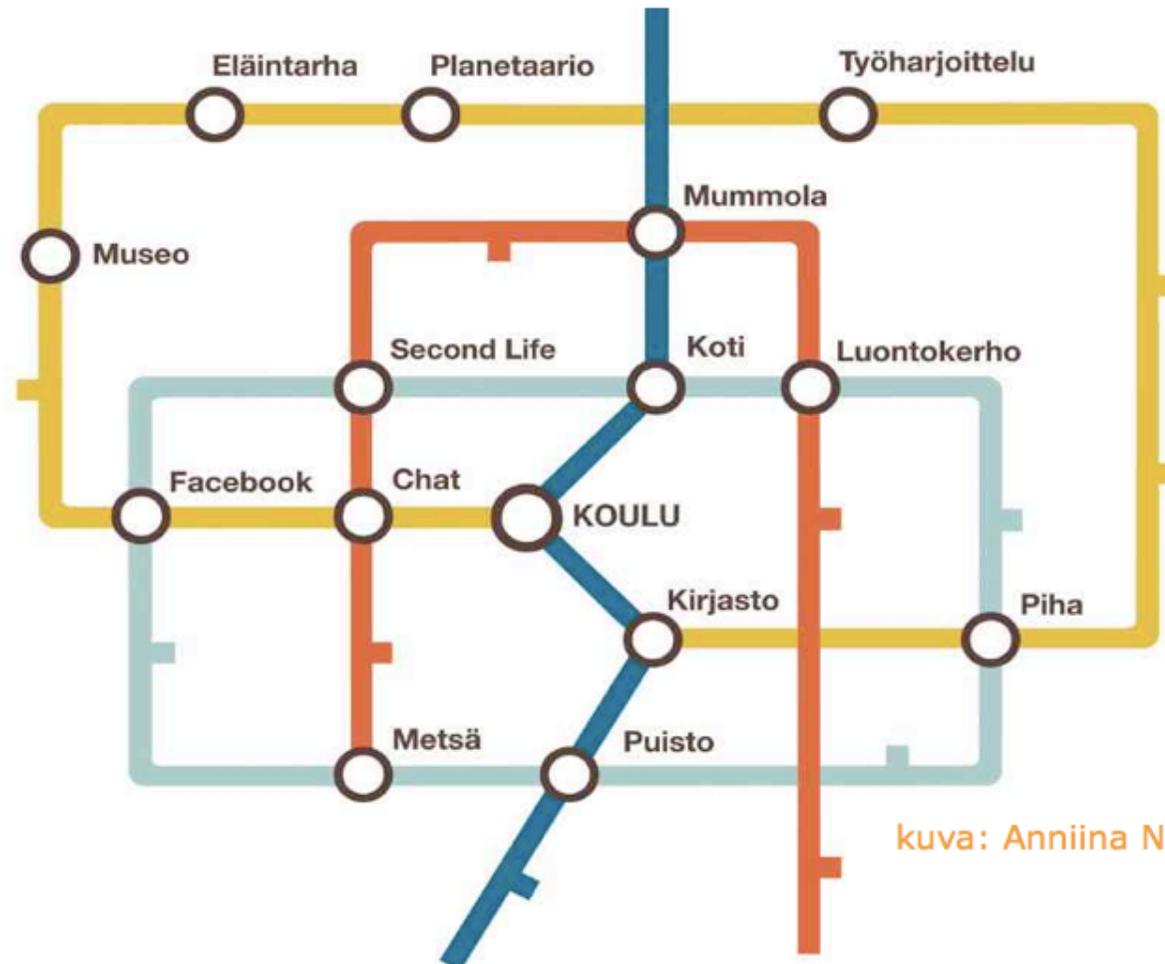
## Learning in the 21<sup>st</sup> century



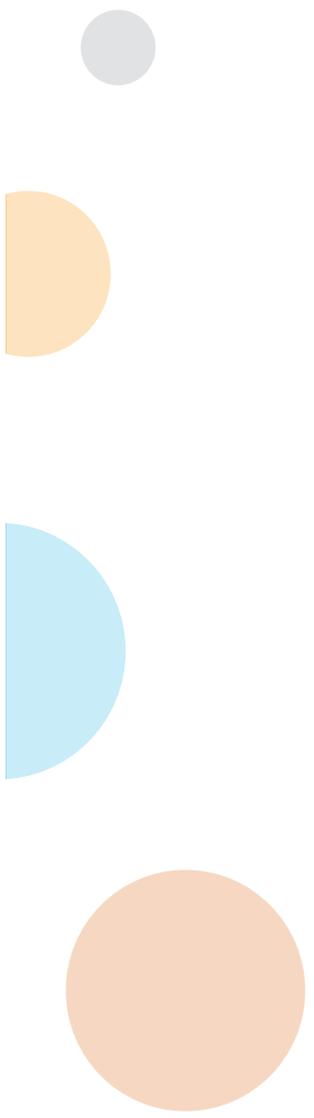
Smeds, R., Krokfors, L., Ruokamo, H., & Staffans, A. (2010). InnoSchool - välittävä koulu. SimLab Report Series 31. Espoo: Painotalo Casper Oy.

# LEARNING ECOLOGIES

(Boaler & Greeno, 2000; Barron, 2006)

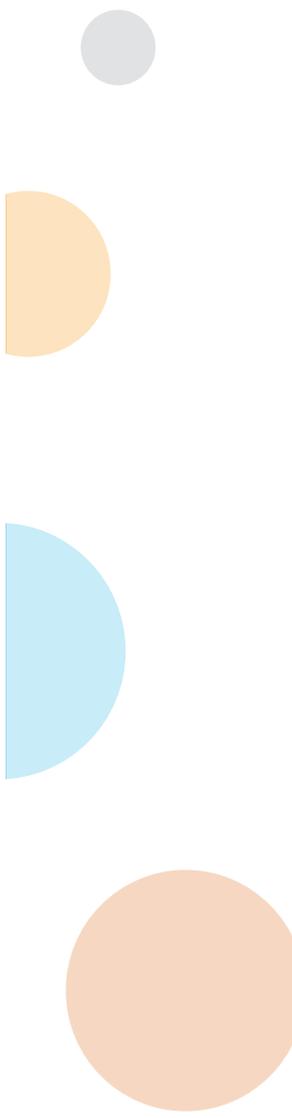


kuva: Anniina Nikama



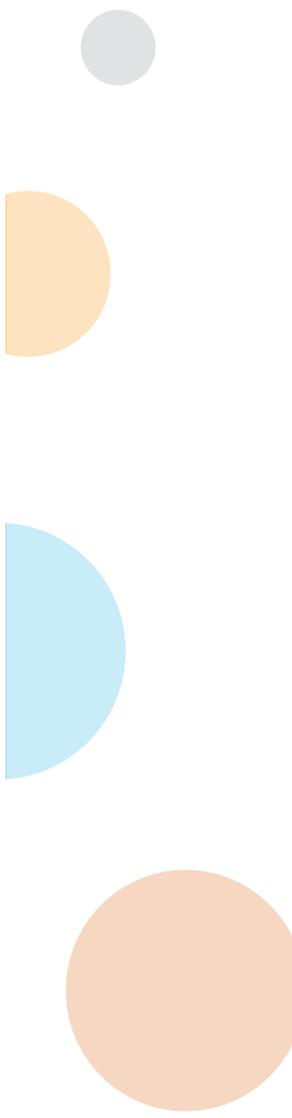
# Defining social ecology

A social ecology can be understood as a set of interacting contexts found in learners' lives that mediate human learning and wellbeing. These contexts are comprised of a unique configuration of activities, material resources, relationships and interactions that emerge in each of them (Barron, 2006).



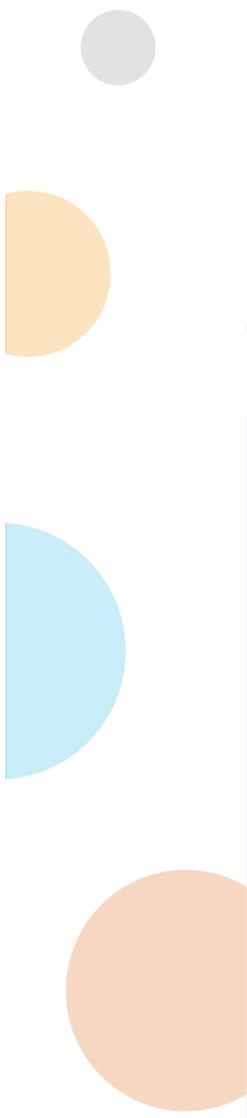
# Pressing questions

- How should we conceptualize learning that is able to respond and explain the increasing complexity, connectivity, and velocity of our times?
- What transformations are necessary in education in order to better respond to the lives and learning processes that young people experience across different contexts?
- How to ensure and promote equal educational opportunity?



# Narrative of this presentation

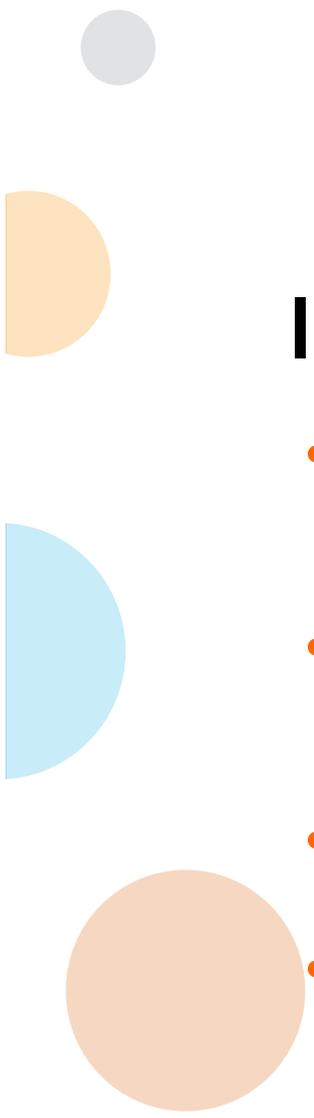
- Elaborates on the notion of 'connected learning' as a conceptual heuristic that has recently received recognition as a potential lens and a model through which to research and promote learning as a holistic experience that stretches beyond formal and informal communities.
- Introduces a set of concepts for researching and understanding connected learning: agency, chronotopes, boundary crossing, and intertextuality
- Illuminates empirical examples of efforts to promote connected learning in education.

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## Connected Learning

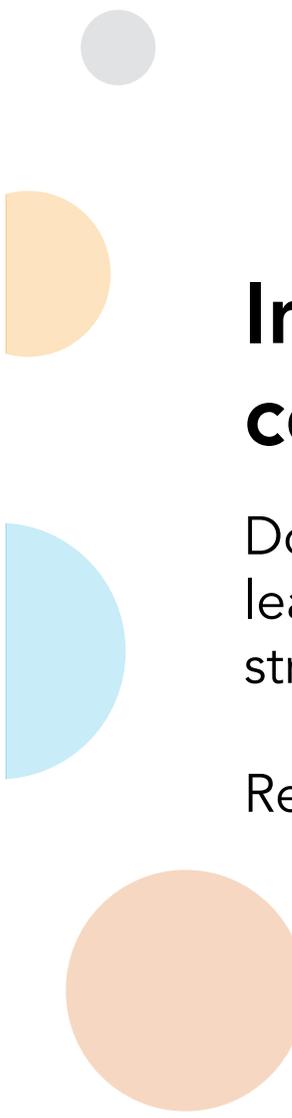
Connected learning is **socially-embedded**, **interest-driven**, and oriented toward **educational opportunity**.

It is realized when the learner is able to pursue a **personal interest** or **passion** with the support of friends, caring adults, expert communities and, is in turn, able to **link** this learning and interest to **academic achievement**, **career success** or **civic engagement** (Ito, et al., 2013).

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## In connected learning...

- Knowledge and knowing are not only associated with the teacher, the curriculum, or outside experts, but rather with everyone participating.
- Learners are seen by themselves and by others as knowledgeable, committed and accountable participants in meaning making and knowledge creation
- Learners are provided with opportunities to develop interpersonal relationships and to learn with and from others.
- Learning practices broaden traditional forms of learner agency and accountability by expanding possibilities for engagement and bringing in new audiences with whom students collaborate and create new knowledge and understanding.

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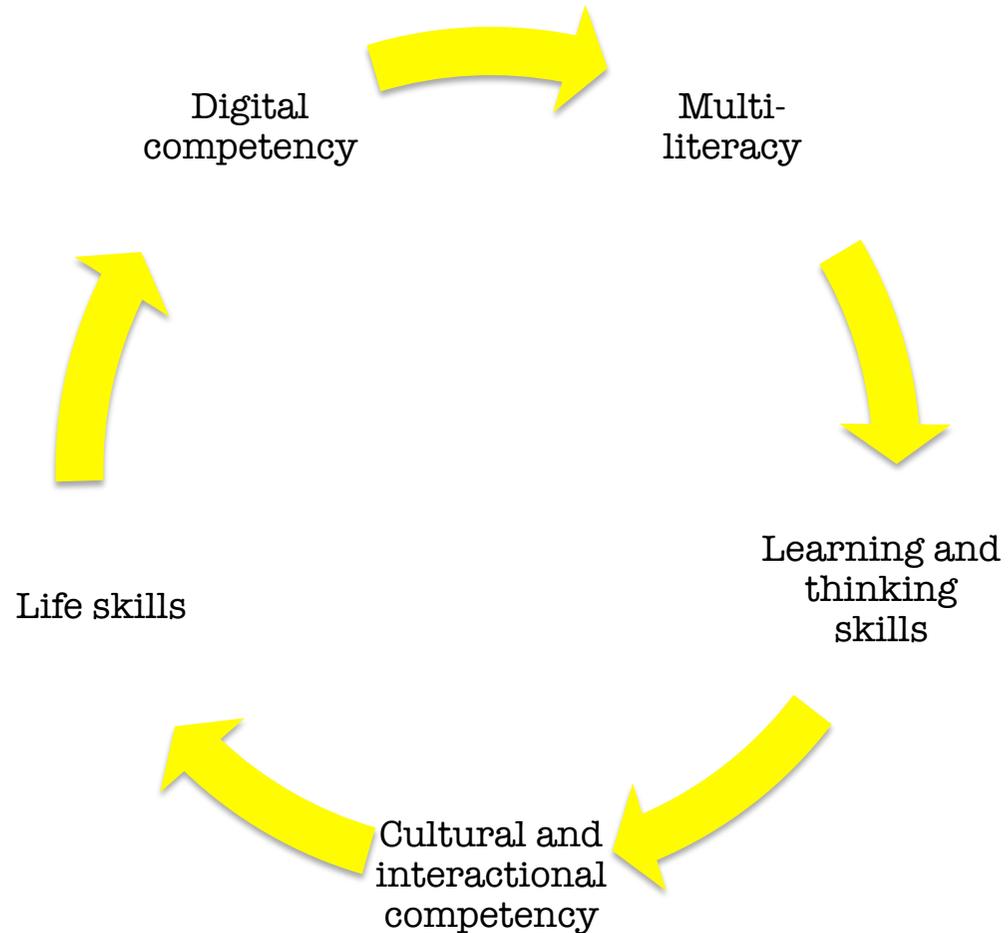
## Innovative ecosystems for promoting connected learning

Does Finland have a national strategy to support connected learning in formal education? Why should we need such a strategy?

Reasons why:

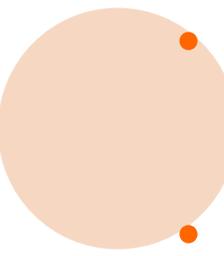
- develop education in and for the 21st century
- motivate and engage students in learning
- prevent drop-outs and social exclusion
- support life long learning
- cultivate a culture of creativity and collaboration
- promote entrepreneurship
- promote prosperity and wellbeing

# The Finnish New National Core Curriculum 2016

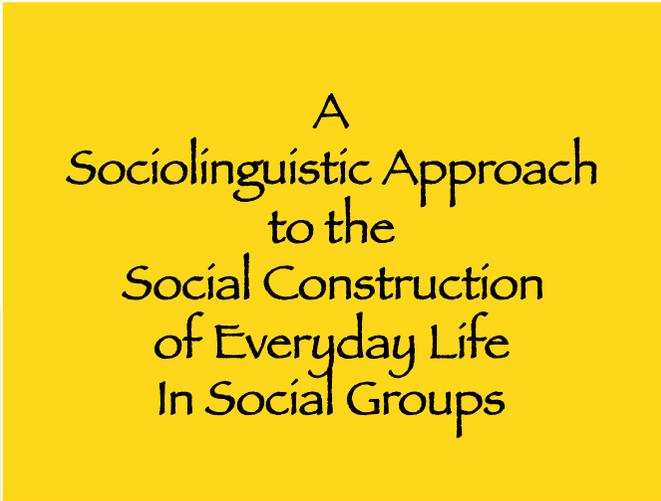


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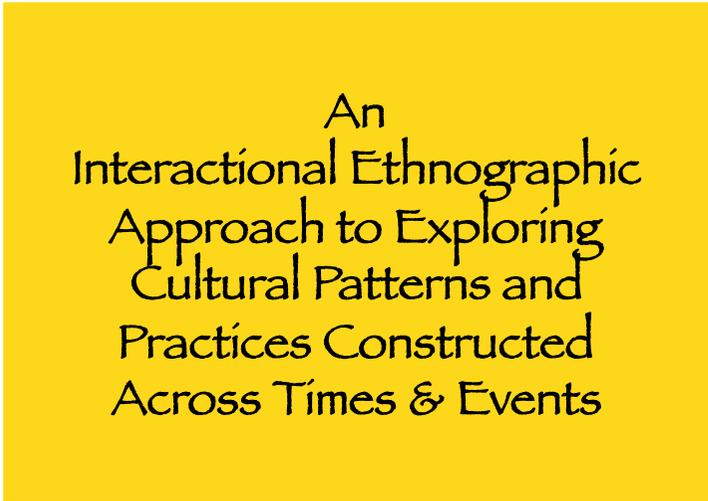
## Lessons learned

- 
- A light blue semi-circle is partially visible on the left edge of the slide.
- We have many 'beautiful exceptions' of innovative teaching and learning projects in Finland.
  - Most of our innovative teaching and learning projects are situated in formal education to improve and reinvent our practices.
  - Digital technologies often characterize our innovative teaching and learning projects.
  - The providers of our innovative teaching and learning projects are to a large extent established education institutions. New partnerships and collaborations are emerging.
- 
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# Theoretical grounding: Sociocultural and dialogic approach

A yellow rectangular box containing text in a black serif font. The text is centered and reads: 'A Sociolinguistic Approach to the Social Construction of Everyday Life In Social Groups'.

A  
Sociolinguistic Approach  
to the  
Social Construction  
of Everyday Life  
In Social Groups

A yellow rectangular box containing text in a black serif font. The text is centered and reads: 'An Interactional Ethnographic Approach to Exploring Cultural Patterns and Practices Constructed Across Times & Events'.

An  
Interactional Ethnographic  
Approach to Exploring  
Cultural Patterns and  
Practices Constructed  
Across Times & Events

Kumpulainen, K., & Erstad, O. (2016). (Re)Searching learning across contexts: Conceptual, methodological and empirical explorations. *International Journal of Educational Research*. DOI: 10.1016/j.ijer.2016.08.004

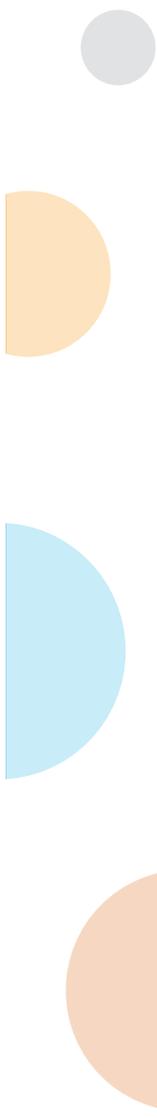
Kumpulainen, K., & Mikkola, A. (2015). Researching formal and informal learning: From dichotomies to a dialogic notion of learning. *International Journal for Research on Extended Education*, 3(2), 5-23.

## Research themes

- Learner agency, identity work and boundary crossing
- Interaction and collaboration processes between students, teachers and other professionals across and within contexts
- The role of technology in mediating interaction, collaboration and learning
- Pedagogical models and curricula recommendations for productive integration of formal and informal learning
- Multiprofessional collaboration and learning at work

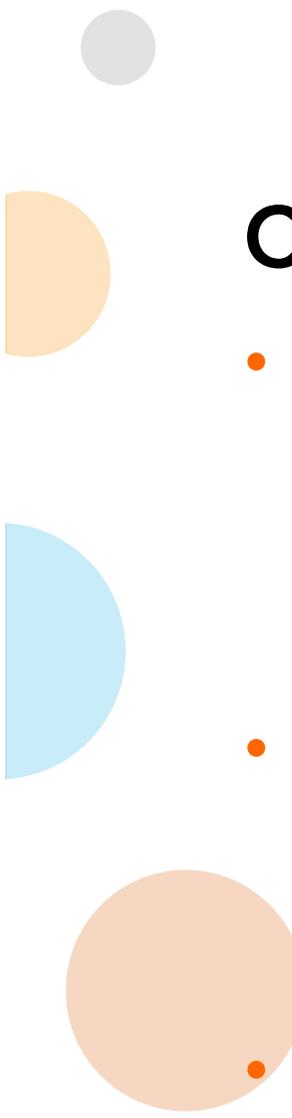
learning bridges



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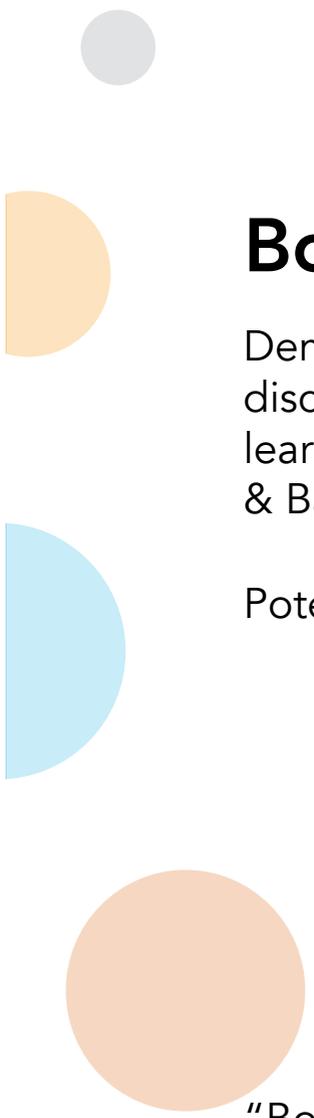
# Agency

- Initiation of purposeful action that implies will, autonomy, freedom and choice (Biesta & Tedder, 2007; Edwards & D'Arcy, 2004; Emirbayer & Mische, 1998; Greeno, 2006; Holland, Lachicotte, Skinner & Cain, 1998).
- An ongoing process that is contextually and historically situated, occasional, multi-faceted, relational, and transitory (Edwards, 2007; Engeström, 2005; Virkkunen, 2006).
- It is via dialogue that agency is constructed, contested, negotiated and, re-negotiated: Agency is exercised and achieved in episodes of interaction, where she/he makes initiations, agrees with, elaborates on, questions, or disagrees with what someone else has proposed (Gresalfi, et al., 2009).

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# Chronotopes

- The concept of chronotope can be traced back from the work of Bakhtin (1981) who defines the spatiotemporal matrix as being produced, shaped and reshaped by the discourses of the participants as they relate to spaces and times beyond here and now.
- Focuses attention on how people, for instance teachers and students, understand and conceptualize their collective and individual movement through time and space (Bloome et al., 2009; Brown, & Renshaw, 2006; Hirst, 2004).
- In classrooms, chronotopes are often messy, complicated, incomplete, multiple, and competing, and may vary across different situations (Bloome, et al, 2009).

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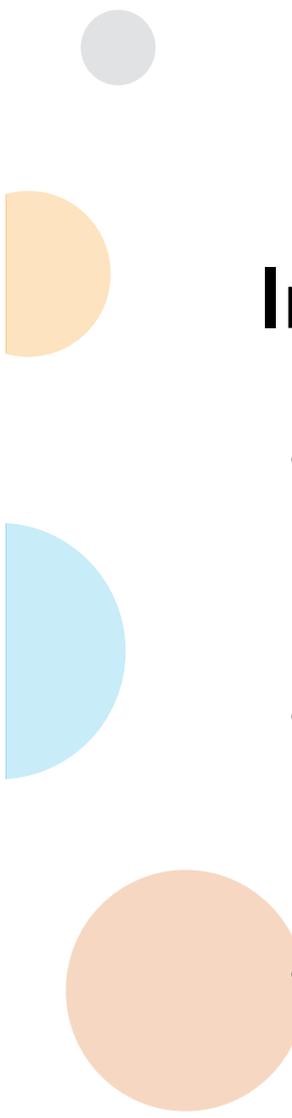
## Boundary crossing

Demonstrates ways in which sociocultural differences and resulting discontinuities in action and interaction can come to function as resources for learning and development of intersecting identities and practices (Akkerman & Bakker, 2011; Engeström, Engeström, & Kärkkäinen, 1995).

Potential learning mechanisms that can take place at boundaries:

- identification, which is about coming to know what the diverse practices are about in relation to one another;
- coordination, which is about creating cooperative and routinized exchanges between practices;
- reflection, which is about expanding one's perspectives on the practices; and,
- transformation, which is about collaboration and co-development of (new) practices.

“Boundary-crossing competence” entails the learner being able to flexibly manage and integrate multiple, divergent discourses and practices across social boundaries in which something new is generated in the interchange of existing practices due to their differences.

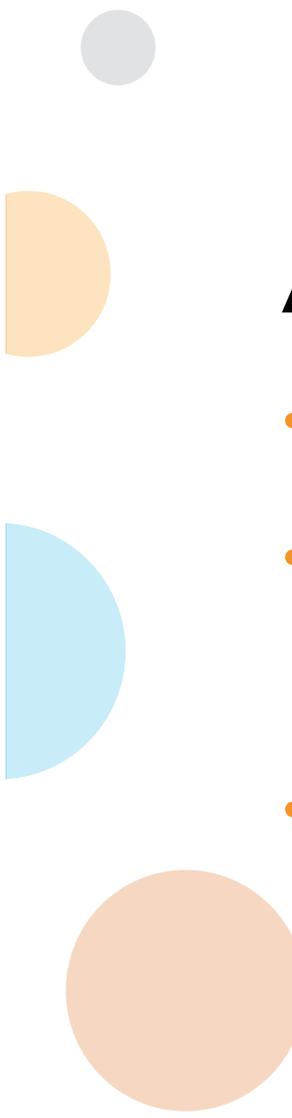
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## Intertextuality

- Reference or juxtapositioning made by speakers to other texts in their acts of communication (Bloome & Egan-Robertson, 1993).
- Provides a fruitful platform to investigate learners' authentic practice of making sense of the world whilst engaged in different social practices.
- Intertextual connections made by learners are found to serve as important catalysts in developing disciplinary understanding as well as disciplinary registers (Varelas & Pappas, 2003).

## **EMPIRICAL EXAMPLE: Bicycles on the Move! project**

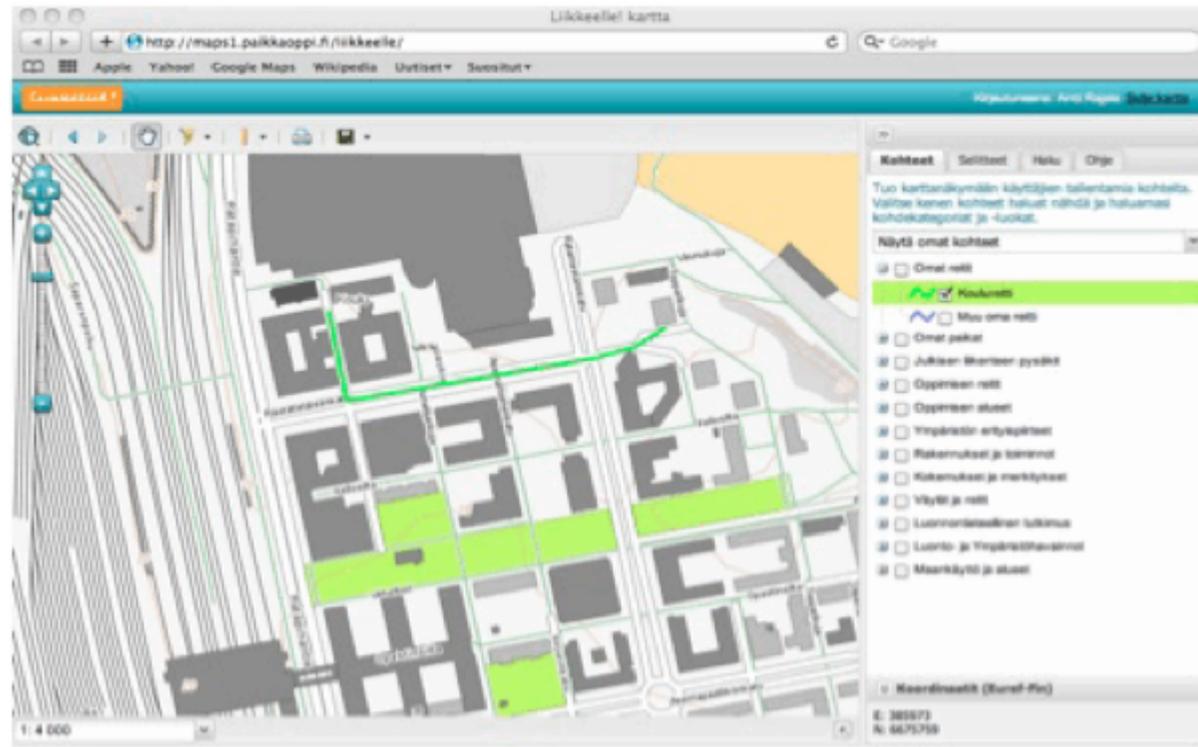
- An optional course at the Etelä-Tapiola Upper Secondary School (City of Espoo, Finland), was first implemented during the 2009/2010 school year.
- The project aims to increase students' cooperation with different actors in order to develop their sense of citizenship and agency.
- During the project, students collaborate with city authorities and influence the decision-making of the City Council concerning cycling.
- Was inspired and supported by two nationally operated projects, On the Move! and LocationLearning funded by the Finnish National Board of Education
- The project has been a huge success, arousing interest in the media even internationally.

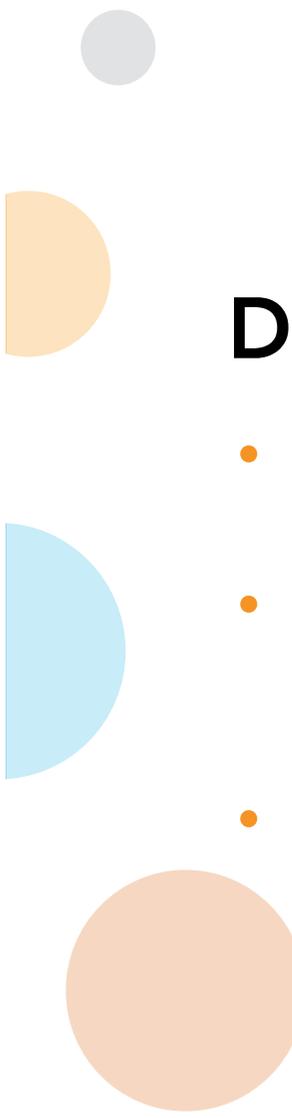
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## Aims

- Space and time are tightly controlled in traditional schooling (Brown and Renshaw, 2006; Vadeboncouer, 2005; Leander, 2002)
- Students' informal funds of knowledge are not adequately acknowledged nor their agency fostered (González, ym., 2005; Engeström, ym., 2002, Bloome ym. 2009; Hubbard, ym., 2006; Tyack and Cuban, 1997)
- Although significant pedagogical innovations to address these issues have been made (Daniels, 2008) only few focus on the connection between agency and space-time configurations
  - ✓ What kind of a chronotope does the Bicycles on the Move! project manifest?
  - ✓ What implications does this chronotope have for students' agency?

"That's the place where we document cycling issues. It provides a strong basis for doing this. From the map you can see that the problems aren't specific to a single area. They repeat all over." (Teacher account)



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## Data and analysis

- Collected from the second implementation, during 2010/2011
- Comprises of student and teacher interviews, newspaper articles and a tv program about the project, as well as observations and videoed interaction from one lesson
- On the basis of our ethnographic understanding of the project we purposefully selected three integral interactional aspects for closer analysis
  - ✓ student accountability
  - ✓ meaning making and relationships
  - ✓ developmental aspects

## Expansion of student accountability

- Emphasis was placed on the students' contribution to the public debate about cycling in relation to different audiences and stakeholders
- The students' contributions were connected to activity systems out-of-school and their choronotopes
- Dialogic knowledge creation and meaning negotiation

## Example 1: Setting the scene

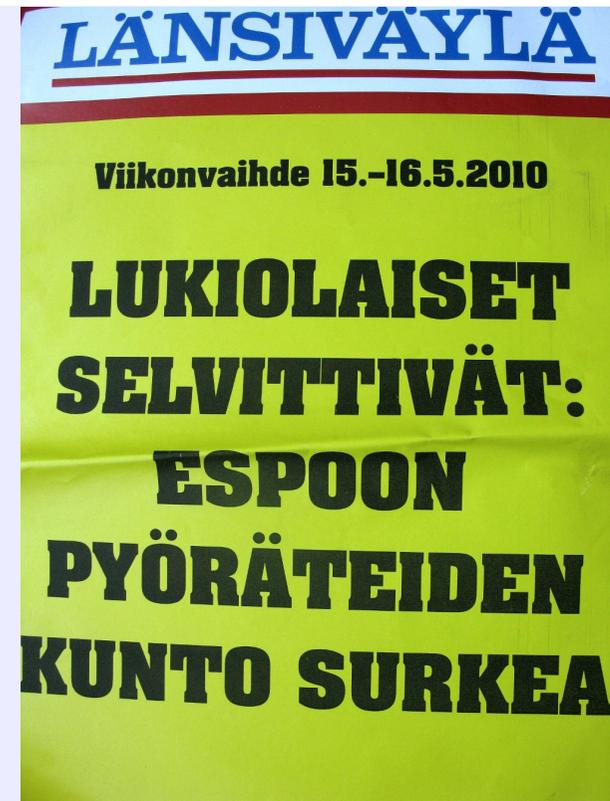
*Teacher: The most urgent issue would be ... right now they [the city authorities] are really starting to ponder and think about ... whether Tapiolan Raitti is a functional main route for cyclists or whether it should be arranged in some other way . . . It is likely that we'll get an audience with the big bosses in January, so before that we should have something of an idea and we should have already checked every corner there and we should have an idea. So would you possibly feel up to going through those corners, especially from the Sokos Hotel heading East, and think about it? What would be a functional route?*

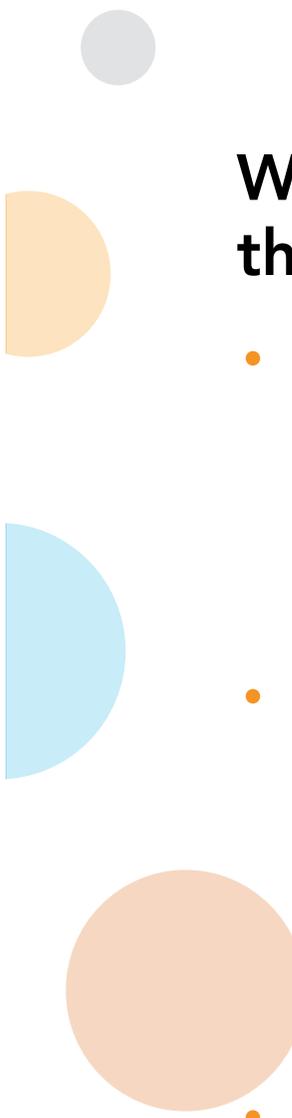


## Expansion of meaning negotiations

- During meaning negotiations a rich variety of different sources were utilized and built on, such as the students' own experiences and observations, and their funds of knowledge in relation to the environment.
- The students established and maintained relations to expert communities, such as local decision makers, city officials, and cycling activists in different cities and abroad.
- In all, the meaning negotiations in the project were forged connections to different communities, and across spaces and times.

A local newspaper headline stating:  
Students report that the cycling routes in the city of Espoo are in miserable condition





## What kinds of agency was made possible through the expansive chronotope?

- **Relational agency** (Edwards & D'Arcy, 2004)
  - ✓ Forging and building on social networks
  - ✓ Giving and receiving support
  - ✓ Learning to understand and acting in relation to other people's potentially conflicting views, e.g., city planners.
- **Conceptual Agency** (Greeno, 2006)
  - ✓ Students used their observations and lived experiences as well as multiple cultural resources as tools for meaning making and problem solving.
  - ✓ The classroom community constructed counter-arguments in juxtaposing expert voices against each other and against the students' own experiences and observations.
- **Transformative Agency** (e.g. Engeström, 2008; Rainio, 2010)
  - ✓ Breaking away from traditional "taken-for-granted" practices and taking initiatives to influence local cycling conditions and contributing to public political debate about cycling issues.

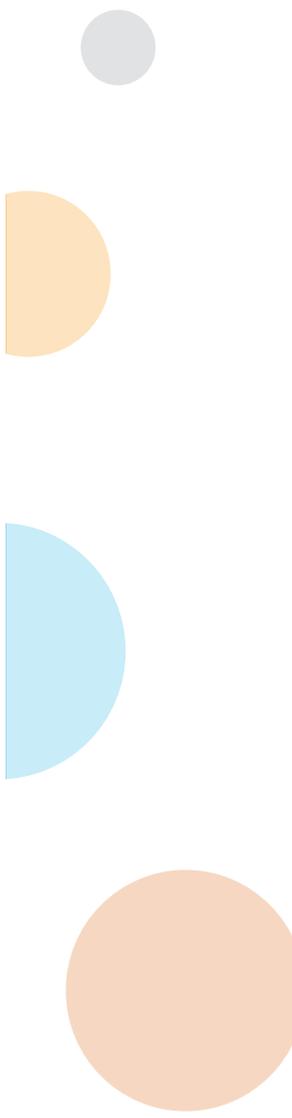
## Orienting to transforming the local environment

- The students and teachers were oriented to improve local cycling conditions, and hence towards transforming the surrounding environment.
- In the interviews, they talked about having 'changed' during the project: A bump or a crack in the road was no longer just a bump or a crack, but something that should and could be fixed by taking action.
- The students learned to see their surroundings not as being static and unchangeable but, instead, as being contingent and situated in historical time.

*In other courses we sit and read,  
there are textbooks and note-  
taking, a fast pace in everything.  
There is one book per course...  
Mostly you just sit in the  
classroom, write and listen.*

*"Before . . . I didn't pay much attention to  
cycling issues. If I hit a stone while biking, I  
might have wondered why it's there, but not  
give it too much thought. Maybe I now think,  
there's a lot of things to improve, and a lot of  
good things too . . . I pay much more attention  
to the condition of the pavement than  
before . . . When you start biking, you notice  
that the same issues turn up all over".*

**Student interviews**  
**Bicycles on the Move! project**



# What does (should) 21<sup>st</sup> century pedagogy look like?

- Engages learners in deep disciplinary engagement with adequate resources and tools
- Engages learners in the pursuit of authentic and complex problems
- Creates spaces for learner agency, authority and accountability in meaning making and knowledge creation
- Breaks boundaries between formal and informal learning contexts and between different communities of practice
- Promotes schools grow into networked and collaborative learning communities

**There are a many people who are intensively engaged, enthusiastic and who work hard. It is a shame that most of them are under 7-years old. -Esa Saarinen.**

# [www.plchelsinki.fi](http://www.plchelsinki.fi)

**PLAYFUL LEARNING CENTER**  
UNIVERSITY OF HELSINKI

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We engage in interdisciplinary research on playful learning innovations and solutions.  
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The Playful Learning Center is currently under construction and it will be opened during summer 2014. The idea of the Playful Learning Center is to co-develop and research playful learning solutions in the digital era.

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University of Helsinki looks for partners to...  
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Learning - not schooling  
- should be the main  
goal of education  
policies!



kristiina.kumpulainen@helsinki.fi