

CV KALLE JUUTI

23.3.2019



1. Education and degrees awarded

- Dosentti (Title of docent, pedagogy of science), University of Helsinki, 2006
- Kasvatustieteen tohtori (Ph.D. in education), University of Helsinki, 2005
- Filosofian maisteri (Master of Science, major in physics), University of Helsinki, 2000

2. Other education and training, qualifications and skills

- Subject teacher qualification physics, mathematics, drama
- Studies in computer science and theoretical philosophy

3. Linguistic skills

- mother tongue: Finnish
- Swedish competence required for civil servants
- English (experience in teaching in English at the university)

4. Current position and affiliations

- Associate professor of digital learning at schools 2017 –
- Faculty of Educational Sciences, Department of Education
- Helsinki Institute of Sustainability Science

5. Previous work experience

- University lecturer 2004–20017
- Family leave autumn period 2013
- Family leave academic year 2010–2011
- Family leave spring period 2008
- First Stage Researcher or doctoral student 1999–2004. ¹
- Military service 1997–1998

6. Research funding as well as leadership and supervision

- PI in project

⁵ Cf. EC 2011: Towards a European Framework for Research Careers

http://ec.europa.eu/euraxess/pdf/research_policies/Towards_a_European_Framework_for_Research_Careers_final.pdf

- Engagement and evaluation in Project-based learning 2018–2021 (Ministry of Education and Culture) with co-pi Katariina Salmela-Aro. Collaborating with Barbara Schneider and Joe Krajcik, Michigan State University.
- Circular economy via invention pedagogy 2017–2019 (SITRA) with Co-PI Jari Lavonen and Tiina Korhonen. Doctoral student Miikka Turkkila works in the project
- Promoting Instructional Coherence in Science through Teacher Education (2017–2019) with co-PI Jari Lavonen, Johanna Jauhiainen and Timo Kärkkäinen (teacher training school). Erasmus+ Strategic partnership in the field of education

- Co-PI in projects
 - “Science Teacher Education Advanced Methods: The S-TEAM” with professor Jari Lavonen. Project was a coordination and support action under FP7, SiS 2008, action 2.2.1.1 Innovative Methods in Science Education (2009–2011). The aim was to develop teaching modules through a design-based research approach. The S-TEAM was financed under the 7th Framework program. Post-doc researcher Minkee Kim and Doctoral student Anni Loukomies worked in the project
 - JoCiTe and CoSiTe” projects on Joint Master programme in teacher education co-PI in with docent Raili Hildén (2007–2009), Comenius Multilateral Projects).

- Senior researcher in projects. I have been participating in preparing of funding applications and/or act as a senior researcher responsible with PIs for general planning and organizing of the research project.
 - “Growing Mind: Educational transformations for facilitating sustainable personal, social, and institutional renewal in the digital age” PI Kai Hakkarainen. Participating in preparing of funding applications and acting as a senior researcher. (2018-2023), Academy of Finland, strategic research council.
 - “Crafting Optimal Learning in Science Environments”. In collaboration with Professor Katariina Salmela-Aro and Jari Lavonen. Academy of Finland (2015–2020). Acting as a senior researcher responsible with PIs for general planning and organizing of the research project. Collaboration with Barbara Schneider and Joe Krajcik, Michigan State University.
 - “Laboratory of Co-Inquiry, Co-Design, Co-Teaching and Co-Regulation (Co4-Lab)”. In collaboration with professors Kai Hakkarainen, Pirita Seitamaa-Hakkarainen, Katariina Salmela-Aro, and Jari Lavonen. Participating in preparing of funding applications and acting as a senior researcher responsible with PIs for strategic planning and organizing of the research project. The purpose of Co4-Lab is to pursue a series of design experiments that engage primary and lower secondary-school students in designing and constructing complex artifacts sparking intellectual, engineering, and aesthetic challenges so as to bring elements of knowledge-creating learning and maker-culture to school. (Academy of Finland, 2015–2019). Doctoral student Kati Sormunen works in the project.
 - “Engaging learning practices in STEM: Research collaboration between Finland and Chile, Academy of Finland” In collaboration with Professor Jari Lavonen and Katariina

- Salmela-Aro (2015–2018). Acting as a senior researcher responsible with PIs for general planning and organizing of the research project. Doctoral student Janna Inkinen.
- “MaterialsScience, University-school partnerships for the design and implementation of research-based ICT-enhanced modules on Material Properties” In collaboration with Professor Jari Lavonen. Participating in preparing of funding applications and acting as a senior researcher responsible with PIs for general planning and organizing of the research project. A research-based curriculum design project that was funded by the European Commission under the Science and Society Program (2007-2009) 6th Framework. Doctoral student Anni Loukomies worked in the project
 - “The Finable Project (2012–2015)” In collaboration with Professor Jari Lavonen. A joint project of several universities and is financed by TEKES (Technological Science Foundation). Act as a senior researcher responsible with PIs for general planning and organizing of the research project. The aim is to research boundless learning through a design-based research approach. The Finable is financed by the Technological Science Foundation. Doctoral students Tiina Korhonen and Kati Sormunen worked in the project.
 - “EAGER, Improving Understandings of Student Engagement in STEM” In collaboration with professors Jari Lavonen and Katariina Salmela-Aro. Participating in preparing of funding applications and act as a senior researcher responsible with PIs for general planning and organizing of the research project. An international collaboration and is funded by the Finnish Academy (2013–2015). The EAGER project aims to determine the characteristics of science teaching and learning that support students’ engagement. The data has been collected through the experience sampling method (ESM) and smartphones. Collaboration with Barbara Schneider, Michigan State University. Doctoral student Janna Inkinen worked in the project.
 - Mentoring the Post-doctoral research:
 - Anni Loukomies, University profi2-project.
 - Minkee Kim, worked as postdoctoral fellow in S-Team-project;
 - Supervised doctoral students:
 - Tiina Korhonen 2017 (Kodin ja koulun digitaalinen kumppanuus)
 - Kaisa Hahl, 2016 (Interculturality and English as a lingua franca - Internationalizing teacher education)
 - Eeva-Liisa Nieminen, 2016 (Ninth Grade Students Generating Interest in Physics and Chemistry - An Interpretive Study of Students’ Discourse in a Science Class in Finland)
 - Pavinee Sothayapetch, 2014 (A comparative study of science education at the primary school level in Finland and Thailand)
 - Anni Loukomies, 2014 (Enhancing Students’ Motivation towards School Science with an Inquiry-Based Site Visit Teaching Sequence: A Design-Based Research Approach)
 - Unofficial supervisor for doctoral Studies:
 - Johanna Leppävirta, 2011 (Aalto university)
 - Supervising doctoral students (theme of dissertation):
 - Elisa Vilhunen (academic emotions and project based learning)
 - Miikka Turkkila (assessment in project based learning)
 - Janna Linnansaari (Engagement in school science),
 - Kati Sormunen (smartphones in inclusive science learning)

- Anttoni Kervinen (Learning biology in field trip)
- Niina Halonen (digital tools and knowledge practices)
- Minna Kukkonen (Pupils as ICT mentors)
- Merike Kesler (creative problem solving in school science)

7. Merits in teaching and pedagogical competence

- Member of the teachers academy in University of Helsinki (December 2018 –)
- Trial lecture (2017) for associate professor position, University of Helsinki
- Trial lecture (12.6.2012) for professor position, University of Turku
- Teacher qualification, qualification of drama teacher.
- Vice head of subject teacher education programme 2016– (leader of planning the subject teacher education curriculum, over 400 students enrol in the programme annually)
- Vice head of class teacher education programme 2010–2015 (Leader of the planning the curriculum of compulsory minor subject in class teacher education programme, 120–140 students enrol the programme annually).
- Extra member of national curriculum planning committee for physics and environmental studies. National board in education, 2014
- supervised annually about ten minor thesis in subject teacher education programme (equivalent to bachelor degree thesis),
- Supervised about two master level theses in education per year

8. Other academic merits

- Evaluating research proposals
 - Council for Fundamental Scientific Education Research
- serving as reviewer of the research output
 - International evaluation of professor's research output
- service as an opponent of a doctoral dissertation
 - Asko Mäkynen, University of Jyväskylä
 - Pasi Nieminen, University of Jyväskylä
- service as an member of the dissertation committee
 - Anders Johansson, University of Uppsala
- service as a pre-examiner of doctoral dissertation
 - Pasi Nieminen, University of Jyväskylä
 - Asko Mäkynen, University of Jyväskylä
 - Mika Nieminen, University of Jyväskylä
 - Päivi Kinnunen, Aalto University
 - Sari Harmoinen, University of Jyväskylä
 - N.N not recommended for publication
- service as an examiner of licentiate dissertation
 - Risto Aikonen, University of Eastern Finland
- service as a faculty member of the grading committee of the doctoral dissertation
 - Päivi Siivonen
 - Ilta-Kanerva Kankaanrinta
 - Kaiju Kangas
 - Laura Tuohilampi
 - Reko Niemelä

- Current member of executive board of Finnish association of subject education
- Member of the executive board of Finnish Mathematics and Science Education Research Association (2008–2011)
- Member of organizing committee of the 11th European Science Education Research Association (ESERA) biannual conference in Helsinki 2015, (about 1500 participants)
- Editor in the national journal of research in subject education: *Ainedidaktikka*
- Member of the executive board of Finnish research association for subject education (Suomen ainedidaktinen tutkimusseura)
- Former National editor in the journal *Nordic Studies in Science Education*
- Member of editorial review board in the journal *Educational Design Research* (An International Journal of Design-Based Research in Education)
- Referee in several journals including Learning and Instruction, Science Education, and Science & Education

9. Scientific and societal impact of research

- Publish or Perish (Google Scholar) h-index: 19
- Most cited papers:
 - Uitto, A., Juuti, K., Lavonen, J., & Meisalo, V. (2006). Students' interest in biology and their out-of-school experiences. *Journal of Biological Education*, 40(3), 124-129.
 - Juuti, K. & Lavonen, J. (2006). Design-based research in science education: One step towards methodology, *Nordic Studies in Science Education*.
- Doctoral dissertation focused on developing primary school physics teaching: Towards primary school physics teaching and learning: design research approach. (Tutkimuksia / Helsingin yliopiston soveltavan kasvatustieteen laitos; No. 256). Helsinki: University of Helsinki. Learning material designed in the project: <http://www11.edu.fi/astel/>
- Designing teacher education learning material within S-Team -project: <http://www.edu.helsinki.fi/malu/inquiry/>

10. Positions of trust in society and other societal merits

- vice-member of the administrative committee of Elli Suninen ja Rachel Troberg fund, 2019–
- Member of the administrative committee of Kymenlaakso regional fund under Suomen Kulttuurirahasto, 2006–2015.