Curriculum Vitae

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Education

Degrees

2015-06-04:	Doctor of philosophy (Ph.D.) in Mathematics, specialising in Educational Sciences, University of Gothenburg.
2013-11-20:	Doctor of Licentiate in Mathematics, specialising in Educational Sciences, University of Gothenburg.
2007-12-18:	Master in Education, Växjö University (now Linnaeus University).
2004-09-17:	Master of Science in Mathematics with Orientation towards Industrial Mathematics, University of Gothenburg.

Other

2016, autumn:	Course for postgraduate supervision, Mid Sweden University.
2005-2006:	90 ECTS physics courses, University of Gothenburg.

Positions

2018-08 – present	Senior lecturer, Department of Mathematics and Science Education, Mid Sweden University.
2016-08 – 2018-07	Postdoc, Department of Mathematics and Science Education, Mid Sweden University.
2016-01 – 2018-07	Lecturer, Department of Teacher Education, University of Borås.
2015-08 – 2016-02	Guest lecturer, Department of Mathematical Sciences, Chalmers University of Technology and University of Gothenburg.
2013-01 – 2013-05	Visiting student researcher, Graduate School of Education, University of California Berkeley.
2009-09 – 2015-04	Doctoral student, Department of Mathematical Sciences, Chalmers University of Technology and University of Gothenburg.

2008-08 – 2012-12 Teacher in mathematics and physics, Kitas upper secondary school, Gothenburg.

2005-01 – 2008-06 Teacher in mathematics and physics, Alströmer upper secondary school, Alingsås.

Teaching experience

As a mathematics and physics teacher at upper secondary school I met students from various programs, vocational and preparatory for higher education, mainly from the technology and the natural science programs. During my time as a PhD student I was involved in the mathematics education at the natural science preparatory course at the university, as well as in mathematics courses in the teacher education. The teaching experience has expanded after my PhD exam with more mathematics teaching at preparatory courses and for pre-service teachers, together with teaching the didactics of mathematics, as well as supervision of degree thesis at the teacher program.

Publications

Journals (peer reviewed)

Johansson, H. & Österholm, M. (2019). Objectification of upper-secondary teachers' verbal discourse in relation to symbolic expressions. *The Journal of Mathematical Behavior*. https://doi.org/10.1016/j.jmathb.2019.100722.

Johansson, H. (2017). Dependence between creative and non-creative mathematical reasoning in national physics tests. *Nordic Studies in Mathematics Education, 22*(2), 93-119.

Johansson, H. (2016). Mathematical Reasoning Requirements in Swedish National Physics Tests. *International Journal of Science and Mathematics Education 14*(6), 1133-1152. doi:10.1007/s10763-015-9636-3

Conference proceedings (peer reviewed)

Johansson, H. (2015). Relation between mathematical reasoning ability and national formal demands in physics courses. In K. Beswick, T. Muir & J. Wells (Eds.). *Proceedings of 39th Psychology of Mathematics Education conference*, Vol. 3, pp. 121-128. Hobart, Australia: PME.

Theses

Johansson, H. (2015). *Mathematical Reasoning – In physics and real-life context* (Doctoral thesis). Gothenburg, Sweden: University of Gothenburg.

Johansson, H. (2013). *Mathematical Reasoning in Physics Tests – Requirements, Relations, Dependence* (Licentiate thesis). Gothenburg, Sweden: University of Gothenburg.

Johansson, H. (2007). *Elevers vardagsföreställningar och fysikundervisningens utformande* [Students' naïve conceptions and the organisation of physics teaching]. (Degree theses, Master of Education). Växjö, Sweden: Växjö University (now Linnaeus University).

Johansson, H. & Hromic, M. (2004). *Identifiering av fysiska parametrar för en AGV (autonomous guided vehicle)* [Possibility of estimating the physical parameters in the control system for an AGV]. (Degree thesis, Master of Science). Gothenburg, Sweden: University of Gothenburg and Chalmers University of Technology.

Reports

Johansson, H., Oskarsson, M., & Nyström, P. (2018). *Glömska eller ytliga fysikkunskaper – Fördjupad analys av svenska elevers sjunkande fysikresultat i TIMSS Advanced 2015* [Forgotten or superficial physics knowledge – An in-depth analysis of Swedish students' decreasing physics results in TIMSS Advanced 2015]. Stockholm, Sweden: Swedish National Agency for Education.

Nyström, P., Kjellsson Lind, A., Dahlberg, U., & Johansson, H. (2016). *Hur samstämmiga är svenska styrdokument och nationella prov med ramverk och uppgifter i TIMSS Advanced 2015?* [How aligned are the Swedish policy documents and national tests with the framework and the tasks in TIMSS Advanced 2015?]. Stockholm, Sweden: Swedish National Agency for Education.

Conference presentations (peer reviewed abstracts)

Johansson, H. & Kilhamn, C. (2019). Grade 6 teachers' objectification of the algebra discourse. In Graven, M., Venkat, H., Essien, A. & Vale, P. (Eds). (2019). *Proceedings of the 43rd Conference of the International Group for the Psychology of Mathematics Education* (Vol 4, p. 51). Pretoria, South Africa: PME. [Oral Communication].

Johansson, H., Österholm, M., Flodén, L., & Heidtmann, P. (2018). Teachers' and students' perception of the gap between secondary and tertiary mathematics. In Bergqvist, E., Österholm, M., Granberg, C., & Sumpter, L. (Eds.). (2018). *Proceedings of the 42nd Conference of the International Group for the Psychology of Mathematics Education* (Vol. 5, p.77). Umeå, Sweden: PME. [Oral Communication].

Johansson, H., Oskarsson, M., & Nyström, P. (2018). Glömska eller ytliga fysikkunskaper [Forgotten or superficial physics knowledge]. Presentation at *Från forskning till fysikundervisning* [From research to physics education], National Resource Center for Physics Education, Lund, Sweden, April 10-11, 2018.

Johansson, H. & Österholm, M. (2018). Clash of cultures? Teachers' and students' perceptions of differences between secondary and tertiary mathematics education. Short presentation at *MADIF 11, the eleventh Swedish Mathematics Education Research Seminar*, Karlstad, Sweden, January 23-24, 2018.

Johansson, H. & Österholm, M. (2017). Upper-secondary teachers' objectification of symbols by their use of language. In Kaur, B., Ho, W.K., Toh, T.L., & Choy, B.H. (Eds.). *Proceedings of the 41st Conference of the International Group for the Psychology of Mathematics Education*, (Vol. 1, p. 215). Singapore: PME. [Oral Communication].

Johansson, H. (2016). Real-Life Context and Mathematical Reasoning – Influences on Students' Success on Mathematics Tasks. Paper presented in Topic study group 18 at

The 13th International Congress on Mathematical Education (ICME-13), Hamburg, Germany, July 24-31, 2016.

Johansson, H. (2013). Relation between imitative and creative mathematical reasoning when solving physics tasks. In A. M. Lindmeier & A. Heinze (Eds.), *Proceedings of the 37th Conference of the International Group for the Psychology of Mathematics Education*, (Vol. 5, p. 80). Kiel, Germany: PME. [Oral Communication]

Johansson, H. (2012). Mathematical Reasoning Requirements in Swedish National Physics Tests. Poster presented at *The 12th International Congress on Mathematical Education* (ICME-12), Seoul, Korea, July 8-15, 2012.

Johansson, H. (2012). Mathematical reasoning requirements to solve tasks in physics tests. In C. Bergsten, E. Jablonka & M. Raman (Eds.), *Evaluation and Comparison of Mathematical Achievement: Dimensions and Perspectives: Proceedings of MADIF 8, The Eighth Mathematics Education Research Seminar, Umeå, January 24-25, 2012* (pp. 211-212). Linköping: Sweden: SMDF. [Short presentation]