

CURRICULUM VITAE

DAG ATLE LYSNE

Personal Information

Date of birth: 03.08.59

Position: Associate Professor in Biology, specializing in the teaching and learning of science, NTNU

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Tel.: 97189556

Education

1999: Dr. scient., (PhD in biological science) University of Tromsø

1993: Cand. scient, (MSc in biological science) University of Tromsø

1988: Teacher education - Adjunkt, Sogndal Lærerhøgskole

1981 |Teacher education, Sogndal Lærerhøgskole

1978 Higher secondary, Sogndal Gymnas.

Positions

2013 – 2016 Head of department Programme for Teacher Education, NTNU

2009 – 2013 Associated Professor at NTNU (first at a 20 % position between 01.01.09 - 30.06.09 and thereafter in a 100 % permanent position) where I established “NTNU Kompetanse i skolen” (“NTNU Competence in School”) which is NTNU’s response to the national strategy towards education of teachers in-service.

1999 – 2009 Associate Professor in Science (“naturfag”), Finnmark University College. At bachelor in natural resource management my teaching has been given within ecology and zoology. At the teacher training program I have taught topics in biology and ecology as well as didactics.

1995 – 1999 Fellowship, University of Tromsø. This position included participating in the supervision of four master’s students and the running of laboratory and field courses in Ecology and Zoology. I have also given lectures in Zoology and Ecology at the basic bachelor’s level.

1994 – 1995 Lecturer in science (“naturfag”) at the teacher training program for kindergarten at Tromsø University College, 66 % position.

1993 – 1994 Scientific assistant, University of Tromsø.

1982 – 1986 Teacher in primary and lower secondary school. Part of my job was to teach science, but also mathematics, arts and handicraft, history and other subjects.

Teaching

My teaching at Universities and University Colleges has been within different aspects of science. I have taught both Ecology and Zoology as well as Didactics in Science (or the Norwegian “naturfag”) within the teacher training programs. I have a breadth of experience in teaching in this field and have, for the last ten years, focused on use of ICT in order to facilitate learning activities. In 2008, I received the teaching award at Finnmark University College.

Supervision of PhD and master students

I have supervised 5 master students and 2 PhD students (Bjørn-Tore Esjeholm, and Odd Leknes).

Project participation and management (selected from 2005 until present)

Research Projects in the Teaching and Learning of Science

“Local Culture for Understanding Mathematics and Science (LOCUMS)”

The project was developed by Dag Atle Lysne.

Project manager: Associate Professor Per-Odd Eggen (The Norwegian University of Science and Technology, NTNU)

Project Period: 01.10.15 – 31.09.19

Budget: 14.0 million Norwegian kroner

Funding Agency: The Norwegian Research Council and NTNU (50 % allocated from each institution).

“Technology and Design Creates the Future in Northern Norway”

Project manager: Dag Atle Lysne

Project Period: 01.10.07 – 31.07.12

Budget: 6.1 million Norwegian kroner

Funding Agency: The Norwegian Research Council and Finnmark University College

“Fra ord til handling” (“From Words to Actions”)

Project manager Trond Einar Persen, RSK Vest-Finnmark

Co-worker at one of four schools: Dag Atle Lysne

Project Period: 2007-2009

Total budget approx. 2.0 million Norwegian kroner

Funding Agency: Norwegian Directorate for Education and Training

“IKT-støttet undervisning i teknologi, design og naturfag” (“ICT in the Teaching of Technology, Design and Science”)

Chief-investigator: Dag Atle Lysne

Project Period: 2005-2007

Total Funding: 1.2 million Norwegian kroner

Founding Agency: Norwegian Opening Universities and Finnmark University College

Projects Developing Teacher Training Programs

“Skolebasert kompetanseutvikling” (“School-based Development of Competence”)

The Norwegian University of Science and Technology

Leader: Dag Atle Lysne

Project Period (pilot): 20.04.12 – 30.06.13

Total funding: 1.0 million Norwegian kroner

Funding Agency: The Norwegian Directorate for Education and Training

“NTNU Kompetanse i skolen” (“NTNU: Competence in Schools”)

This is NTNU’s response to a national strategy for education of teachers through in-service training. At present, 14 courses with 30 credit points each are included in the program.

Leader: Dag Atle Lysne 01.08.2009 – 2013

“Ny lærerutdanning ved HiF” (“A New Teacher Training Program at Finnmark University College”)

Leader: Dag Atle Lysne

Project Period: 01.01.09 – 30.05.09

“Nye modeller for samarbeid med skole og barnehageeier i lærerutdanningene” (“New Models for Collaboration in Teacher Training with the Owners of Schools and Kindergartens”)

Leader: Dag Atle Lysne

Project Period: 01.08.08 – 01.06.09

“Pilot i nord” (“Pilot Project in the North”)

Leader: Lecturer Torunn Klemp, Høgskolen i Sør-Trøndelag

Secretary: Dag Atle Lysne

Project Period: 01.02.08 – 03.09.08

Publications

Scientific book chapters

Bungum, B., Esjeholm, B.-T. & **Lysne, D. A.** (2016). "Students' Use of Science and Mathematics in Practical Projects in Design and Technology" in Papadouris, N., Hadjigeorgiou, A. & Constantinou, C. P. (eds.), *Insights from Research in Science Teaching and Learning*. Springer 2016 Contributions from Science Education Research (2), pp. 45-48.

Lysne, D. A. & Hoveid, H. (2013). "A Practical Approach in Technology and Design in a School for All" in Hoveid, M. & Grey, P. (eds.), *Inquiry in Science Education and Science Teacher Education. Research on teaching and learning through inquiry based approaches in science (teacher) education*. Akademika Publishing, Trondheim, pp. 239-262.

Scientific Papers on the Teaching and Learning of Science (all refereed)

Lysne, D. A., Postholm, M. B., Emstad, A. B. Engvik, G., Fjørtoft, H., Wæge, K. (submitted) "Skolebasert kompetanseutvikling på ungdomstrinnet, En studie av faktorer som fremmer utvikling." *Submitted to FOU i Praksis*.

Esjeholm, B. T. & **Lysne, D. A.** (submitted) "Norwegian D&T classrooms in terms of knowledge content - a case study." Submitted to *International Journal of Technology and Design Education*.

Bungum, B., Esjeholm, B.-T., & **Lysne, D. A.** (2016). Students' Use of Science and Mathematics in Practical Projects in Design and Technology. In: N. Papadouris, A. Hadjigeorgiou, C. P. Constantinou (eds.): *Insights from Research in Science Teaching and Learning*. Springer.

Bungum, B., Esjeholm, B.-T., & **Lysne, D. A.** (2014). Science and mathematics as part of practical projects in technology and design: An analysis of challenges in realising the curriculum in Norwegian schools. *NorDiNa*, 10(1), 3-15.

Bungum, B., Esjeholm, B.-T., & **Lysne, D. A.** (2014). Science and mathematics as part of practical projects in technology and design: An analysis of challenges in realising the curriculum in Norwegian schools. *NorDiNa*, 10(1), 3-15.

Bungum, B.; Manshadi, S.; **Lysne, D. A.** (2014). Mathematical speech and practical action: a case study of the challenges of including mathematics in a school technology project. *International journal of mathematical education in science and technology*, 45(8), 1131-1145.

Bungum, B., Esjeholm, B.-T., **Lysne, D.A.** (2013). "Teknologiprojekter som læringsarena og betydningen av hensikt og kontekst." ("Technology projects as area of learning and the consequence of purpose and context.") in Pareliussen, I., Moen, B.B., Reinertsen A., Solhaug, T., *FoU i praksis 2012 conference proceedings*, Akademika forlag, Trondheim, pp. 37-43..

Lysne, D.A. (2013). Hvordan bidrar elevenes erfaringer til arbeidet med teknologi i skolen? In Pareliussen, I., Moen, B.B., Reinertsen A., Solhaug, T. (Eds): *FoU i praksis 2012 conference proceedings*. Trondheim: Akademika forlag, Trondheim, pp. 155-162.

Manshadi, S., **Lysne, D.A.** (2013). Meningsdanning i matematikk basert på arbeid i teknologi og design. In Pareliussen, I., Moen, B.B., Reinertsen A., Solhaug, T. (Eds): *FoU i praksis 2012 conference proceedings*. Trondheim: Akademika forlag, pp. 163 - 171.

Bungum, B., Esjeholm, B.-T., **Lysne, D. A.** (2012) "Technology & design as contexts for science and mathematics? An empirical study of the realisation of curriculum intentions in Norwegian schools." Proceeding from PATT 26 conference 2012, *Technology Education in the 21st Century*, Linköping University Electronic Press s. 105 -110.

Byrkjeflot, L. og **Lysne D.A.** (2012) "Bloggen; en lite utnyttet mulighet?" ("Blogs; an unused opportunity?") *Rapport fra konferanse om praksisrettet FoU i lærerutdanning. Trondheim, 26 and 27 April 2011*. Tapir Akademisk Forlag 2012 ISBN 978-82-519-2918-9.

Lysne, D.A. & Bungum, B. (2012) Praktisk arbeid på tvers av fag, sløsing med tid eller godt læringsarbeid? (Practical work across subjects, waste of time or good learning activities) *Rapport fra konferanse om praksisrettet FoU i lærerutdanning. Trondheim, 26. og 27. april 2011*. Tapir Akademisk Forlag 2012 ISBN 978-82-519-2918-9. s. 287-295.

Byrkjeflot, L., Lloyd, M. & **Lysne, D.A.** (2011). Discussions on conceptual knowledge and the use of blogs. *Conference Proceedings STEM 2010*, pp. 1-10. <http://stem.ed.qut.edu.au/images/stories/abst/131b>.

Byrkjeflot, L., **Lysne, D.A.** & Lloyd, M. (2010). "The Use of Blogs in Discussions on Conceptual Knowledge" in *Contemporary Science Education Research: Teaching*. Tyrkia: Pegem Akademi 2010. pp.169-172.

Lysne, D. A., Nykvist, S. og Lloyd, M. (2009). "Kan web-logg brukes for å koble praktisk arbeid til arbeid med teoretiske begreper?" *Proceedings from NFSUN Det 9. nordiske symposium i naturfagdidaktikk*. 2008.

Vedal, F., Esjeholm, B. T. & **Lysne, D. A.** (2008). "How do ICT related attitudes vary among teachers?" in *Technology education through open ended teaching strategies associated with practical learning tools*. Palme Publications 2008 ISBN 9786055829162. pp. 237-242.

Lysne D. A., Misund, S. og Esjeholm, B. T. (2006). "Hvilke faktorer påvirker aktivitetsnivå når elever i 3. klasse (8 - 9 år) arbeider med teknologi?" In Bering L., Dolin J., Krogh L.B., Sølberg J., Sørensen H., Troelsen R. (red.). *"Naturfagsdidaktikkens mange fasetter: Proceedings fra Det 8. nordiske Forskersymposium om undervisning i naturfag"*, Danmarks Pædagogiske Universitets Forlag. København.

Conference Contributions on Teaching and Learning of Science (selected from 2008 onwards)

Lysne, D.A. (2012) "Kan bruken av elevenes erfaringer å utvikle skolens meningsdannelse?" ("Can the use of students experience evolve the schools meaning-making?") *FOU Conference i praksis 2012. Nordisk konferanse om praksisretta FoU i utdanninga*, Trondheim 2012-04-23 gjennom 2012-04-25.

Manshadi, S. and **Lysne, D.A.** (2012) "Meningsdanning i matematikk basert på arbeid i teknologi og design?" ("Meaning making i mathematics-based one work in technology and design") *FoU Conference i praksis, 2012. Nordisk konferanse om praksisretta FoU i utdanninga*, Trondheim 2012-04-23 gjennom 2012-04-25.

Bungum, B., Esjeholm, B. T. and **Lysne, D. A.** (2012) "Teknologiprojekter som læringsarena og betydningen av hensikt og kontekst" ("Technological Projects which are a Learning Arena: the Meaning of Purpose and Context" in *FoU i Conference i praksis 2012. Nordisk konferanse om praksisretta FoU i utdanninga*, Trondheim 2012-04-23 gjennom 2012-04-25.

Lysne, D.A. (2011) "Teknologi og design i skolen" ("Technology in the School"). *The School and Kindergarten Research Conference*, Finnmark, Alta, 2011.

Lysne, D.A. (2011) "Spør lærere om hva elevene tenker?" ("Do teachers ask for the students reflections?") *NFSUN Conference*, Linköping, Sverige, 2011.

Lysne, D.A., Bungum, B. (2011) "Praktisk arbeid på tvers av fag, sløsing med tid eller godt læringsarbeid?" ("Practical work across subjects, waste of time or good learning activities?") *FOU Conference i Praksis*, Trondheim, 2011.

Byrkjeflot, L., Lloyd, M., **Lysne, D. A.** (2010) "Discussions on conceptual knowledge and the use of blogs." *STEM in Education Conference*, 2010-11-26 - 2010-11-27.

Byrkjeflot, L., **Lysne, D. A.**, Lloyd, M (2008) "The Use of Web-logs in Discussions on Conceptual Knowledge." *ESERA 2009 Conference. The 9th European Science Education Research Association*, 2009-08-31 - 2009-09-04.

Lysne D. A., Nykvist, S., Lloyd, M. (2008) "Kan web-logg brukes for å koble praktisk arbeid til arbeid med teoretiske begreper?" ("Can Web-Logs be used to Link Practical Work to the Learning of Conceptual Knowledge?") *Det 9. nordiske symposium i naturfagdidaktikk*. 11. – 15. juni, 2008.

Vedal, F., Esjeholm, B. T., **Lysne, D. A.,** (2008). "How do ICT related attitudes vary among teachers?" in *Technology education through open ended teaching strategies associated with practical learning tools*. Palme publications 2008 ISBN 9786055829162, pp. 237-242.

Scientific Papers on Ecology (Selected from work prior to 2006; all refereed publications)

Lysne D. A., Hemmingsen W. and Skorping A. (2006), "Is Reduced Body Growth of Cod Uninfected with the Gill Parasite *Lernaeocera branchialis* the Cost of Resistance?" in *Journal of Fish Biology*, Vol. 69, pp. 1281-1287.

Lysne D. A. and Skorping A. (2002). "The Gill Parasite *Lernaeocera branchialis* in Caged Cod: Infection Pattern is Caused by Differences in Host Susceptibility." in *Parasitology*, Vol. 124, 69-76.

Lysne D. A. and Skorping A. (2002). "Variation in infection levels in natural populations due to differences in host susceptibility." - *Proceedings of the 10th International Congress of Parasitology – ICOPA X, August 4-9*.

Lysne D. A., Skorping A. and Hemmingsen W. (1998), "Transmission of *Cryptocotyle lingua* Cercariae in Natural Environments: a Field Experiment" in *Journal of Fish Biology*, Vol. 53, 879-885, 1998.

Lysne D.A., Hemmingsen W. and Skorping A. (1997). "Regulation of Infra-populations of *Cryptocotyle lingua* on Cod" in *Parasitology*, Vol. 114, 145-150.

Non-Scientific Publications on the Teaching and Learning of Science

These publications are all based on close collaboration with teachers in primary and lower secondary school in order to develop student projects where school scientific discussions are linked to practical actions.

Lysne, D. A. and Esjeholm, B. T. (2013). "Hvordan bidrar elevenes erfaring til arbeidet med teknologi og design?" ("How does student experience contribute to work in technology and design?") in *Naturfag*, Vol. 1. pp. 101-103.

Bungum, B., Hoveid, H., **Lysne, D. A.,** Esjeholm, B. T., Byrkjeflot, L., Bentsen, B. and Manshadi, S. (2012). "Et forskningsprosjekt om teknologi og design i skolen", in *Naturfag* (2) pp. 16-17.

Lysne, D. A., Esjeholm, B. T., Byrkjeflot, L., Bentsen, B. and Manshadi, S. (2012) "Fire elevprosjekter innenfor teknologi og design." *Naturfag* 2012; Volum 2. pp. 18-21.

Utsi, T., **Lysne, D. A.** and Bongo, M. I. (2008). "Reinens skinn og gevir" ("The skin and the antlers of the reindeer") <http://www.naturfag.no/uopplegg/vis.html?tid=910970>

Lysne, D. A., Esjeholm, B. T. and Misund, S. (2005). "Datastyrt mikrodrivhus". <http://www.naturfag.no/ungdom/uopplegg/vis.html?tid=74225>

Lysne, D. A., Misund, S., and Esjeholm, B. T., (2005). "Teknologi sammen med uteskole i naturfag" ("Technology and learning outside the school area") in *Naturfag nr. 1. Naturfagsenteret*. http://www.naturfagsenteret.no/tidsskrift/Naturfag_1_05.pdf