

References

This page currently includes all the references from [STAN84](#), but will be expanded as papers and other outputs of the project are added to the site.

- Abd-El-Khalick, F. (2005). Developing deeper understandings of nature of science: the impact of a philosophy of science course on pre-service science teachers' views and instructional planning. *International Journal of Science Education*, 27(1), 15-42.
- Ahtee, M., Lavonen, J. & Pehkonen, E. (2008). Reasons Behind the Finnish Success in Science and Mathematics Education. *Problems of Education in the 21st Century: Recent Issues in Education*, 6, 18-26.
- Bamford, A. (2006). *The Wow-factor. Global research compendium on the impact of arts in education. A UNESCO report.* Munchen: Waxman.
- Bandura, A. (1997) *Self-efficacy: The exercise of control.* New York: WH Freeman and Company.
- Barnes, D. (1992): *The Significance of Teachers' Frames for Teaching.* In: Russell, T. & Munby, H. (eds): *Teachers and Teaching: From Classrooms to Reflection.* London: The Falmer Press.
- Brinkman, F., & De Jong, O. (1996). Science and mathematics teacher education: some themes of general interest. *European Journal of Teacher Education*, 19(2), 103-115.
- Bungum, B. (2006). Transferring and transforming technology education: A case study of Norwegian teachers' perceptions of ideas from design & technology. *International Journal of Technology and Design Education*, 16, 31-52.
- Butler, R. (1987). Task-involving and ego-involving properties of evaluation: Effects of different feedback conditions on motivational perceptions, interest, and performance. *Journal of Educational Psychology*, 79, 474-482.
- Carrasquillo, A. & Rodriguez, V. (2002). *Language Minority Students in the Mainstream Classroom (2nd ed.)*. Clevedon: Multilingual Matters.
- Coelho, E. (1998). *Teaching and Learning in Multicultural Schools. An Integrated Approach.* Clevedon: Multilingual Matters.
- Collins, R. (2000). Among the better ones: Upward assimilation in social comparison. In J. Suls & L. Wheeler (Eds.), *Handbook of social comparison (159 - 172)*. New York: Kluwer / Plenum Press.
- Costa, J., Caldeira, M. H., Gallastegui, J. R. & Otero, J. (2000). An analysis of question asking on scientific texts explaining natural phenomena. *Journal of Research in Science Teaching*, 37, 602-614.
- Cummins, J. (2000). *Language, Power and Pedagogy. Bilingual Children in the Crossfire.* Clevedon: Multilingual Matters.
- Daniel, M.F; Lafortune I; Pallascio R; Schleifer M; Mongeau, P (1999): "Philosophical dialogue among pupils: a potent tool for learning mathematics" in Palsson, H.;, Sigurdardottir B.; Nelson Y. B.: *Philosophy for children on top of the world.* Akureyri Akureyri Univ.
- DCSF (Department of Children, Schools and Families) (2007a) *Cost-Benefit Analysis of Interventions with Parents Research Report RW008*, London, DCSF.
- DCSF (Department of Children, Schools and Families) (2007b) *Engaging Parents in raising Achievement: Do Parents Know They Matter? Research Report RW004*, London, DCSF.
- Deci, E. L., Ryan, R. M. (2002). *Handbook of Self-Determination research.* Rochester: University of Rochester Press.
- Dompnier, B., Pansu, P., & Bressoux, P. (2007). Social utility, social desirability and scholastic judgments: toward a personological model of academic evaluation. *European Journal of Psychology of Education*, 22(3), 333-350.
- Donnelly, J. (1995). Curriculum developments in science: the lessons of Sc1. *School Science Review*, 76(227), 95-103.
- Duggan, S. & Gott, R. (1995). The place of investigations in practical work in UK National Curriculum for Science. *International Journal of Science Education*, 17 (2), 137-147.
- Duggan, S., Johnson, P., & Gott, R. (1996). A critical point in defining investigative work: Defining variables. *Journal of Research in Science Teaching*, 33(5), 461-474.
- EC (European Commission) (2007) *Science Education Now: A renewed Pedagogy for the Future of Europe: Report of the High-Level Group on Science Education Brussels, EC Directorate -General for Research: available at: http://ec.europa.eu/research/science-society/document_library/pdf_06/report-rocard-on-science-education_en.pdf*
- EC (European Commission) (2004a) *Increasing Human Resources for Science and Technology in Europe: Report to be presented at the EC Conference "Europe needs More Scientists" Brussels, European Commission.*
- EC (European Commission) (2004b). *Europe needs more scientists. Report by the High Level Group on Increasing Human Resources for Science and Technology in Europe.* Brussels, European Commission,
- Elliot, A. J., Dweck, C.S. (2005). *Handbook of competence and motivation.* New York: Guilford Press.
- Enghag, M., & Niedderer, H. (2007) Two Dimensions of Student Ownership of Learning During Small-Group Work in Physics, *International Journal of Science and Mathematics Education*, 6:629-653
- Erduran, S & Jimenez-Aleixandre M. P. (Eds.) 2008, *Argumentation in science education: perspectives from classroom-based research.* Dordrecht: Springer.
- EURYDICE (2006) *Science Teaching in Schools in Europe: Policies and Research Brussels, European Commission.* available at: <http://eacea.ec.europa.eu/portal/page/portal/Eurydice/showPresentation?pubid=081EN>
- Evans, R.H. (March, 1999). *Methodological competence: using science processes to interpret and hypothesize about natural artifacts.* An article and video-presentation published as a CD-ROM. IPN Scientific Literacy Series, Kiel, Germany.

- Evans, R. H. (1997). A challenge to the science education community: Morris H. Shamos' The Myth of Scientific Literacy . In Graber, W. & Bolte, C. (Eds.), *Scientific Literacy* (pp. 103-120). Kiel, Germany: IPN.
- Evans, R. and Koballa, T. (2002): Umsetzung der Theorie in die Praxis (Transformation of Theory into School Practice) in Graber, W., Nentwig, P., Koballa, T. & Evans, R. (Hrsg.): *Scientific Literacy. Der Beitrag der Naturwissenschaften zur Allgemeinen Bildung. (Scientific Literacy: The Value of Science in General Education)* Opladen: Leske + Budrich.
- Fan, Y., Hoel, T.L., Tjeldvoll, A., Engvik, G. (Eds.). (2006) *Assuring University Learning Quality: Cross-Boundary Collaboration*. Trondheim, Tapir Academic Press
- Farkac J., & Bozkova H. (2006). *Biological Olympiad*. Prague: Jan Farkac Publishing. (in Czech).
- Goodson, I. F. (1992). Sponsoring the teacher's voice: Teachers' lives and teacher development. In A. Hargreaves & M. G. Fullan (Eds.), *Understanding teacher development*. London: Cassell.
- Gott, R., & Duggan, S. (2002). Problems with the assessment of performance in practical science: Which way now? *Cambridge Journal of Education*, 32(2), 83-201.
- Gowin, D. B. & Alvarez, M. C. (2005). *The art of educating with V Diagrams*. New York: Cambridge University Press.
- Graber, W., Nentwig, P., Koballa, T. & Evans, R. (Hrsg.) (2002): *Scientific Literacy. Der Beitrag der Naturwissenschaften zur Allgemeinen Bildung. (Scientific Literacy: The Value of Science in General Education)* Opladen: Leske + Budrich
- Goucha, Moufida (2007) *Philosophy: a school of freedom; Teaching philosophy and learning to philosophize: status and prospects*, Paris, UNESCO.
- Grangeat, M. & Gray, P. (2008). Teaching as a collective work: analysis, current research and implications for teacher education. *Journal of Education for Teaching*, 34 (3), 2008, 177-189).
- Grangeat, M. & Gray, P. (2007). Factors influencing teachers' professional competence development. *Journal of Vocational Education and Training*, 59 (4), 485-501.
- Gueudet, G. (2008) *Digital resources and mathematics teachers' documents*, JEM Network (Joining Educational Mathematics), 5th Workshop, Paris.
- Gueudet, G., Trouche, L. (2008) *Collective documentation work as a mode of teacher training : which methodological assistants ?* Colloque ECER, Goteborg, Suede.
- Hajer, M. (2000). Creating a language promoting classroom: content-area teachers at work. In J. K. Hall & L. S. Verplaetse (Eds.), *Second and foreign language learning through classroom interaction* (pp. 265-286). Mahwah, NJ: Lawrence Erlbaum.
- Hegarty-Hazel, E. (1990). Tertiary laboratory classroom. In E. Hegarty-Hazel (Ed.). *The student laboratory and the science curriculum*. London: Routledge.
- Hennessy, S. (1993). Situated cognition and cognitive apprenticeship: Implications for classroom learning. *Studies in Science Education*, 22, 1-41.
- Hipkins, R., Barker, M., & Bolstad, R. (2005). Teaching the "nature of science": modest adaptations or radical reconceptions? *International Journal of Science Education*, 27(2), 243-254.
- Hodson, D. (1992). Assessment of practical work: Some considerations in philosophy of science. *Science and Education*, 1, 115-144.
- Hodson, D., & Bencze, J. (1998). Becoming critical about practical work: changing views and changing practice through action research. *International Journal of Science Education*, 20(6), 683-694.
- Jimenez-Aleixandre, M. P. (2008). Designing Argumentation learning environments. In Erduran, S. & Jimenez Aleixandre, M.P (Eds) *Argumentation in Science Education. Perspectives from classroom-based research* (pp 91-115). Dordrecht: Springer
- Jimenez-Aleixandre, M.; Rodriguez, A. & Duschl, R. (2000). "Doing the lesson" or "Doing Science": Argument in High School Genetics. *Science Education*, 84, 757-792.
- Klette K., Odegaard M., Arnesen N.E. (2007): *Time Scales and Coding Categories in Video Analyses*. Invited symposium contribution at ESERA, August 21-25. 2007
- Klette K., (2007): *Trends in Research on teaching and Learning in Schools: Didactics meets Classroom studies*. In *European Educational Research Journal*, Vol.6, No 2 (pp147-161).
- Krogh, L., Thomsen, P.V. (2005). Studying students' attitudes towards science from a cultural perspective but with a quantitative methodology: border crossing into the physics classroom, *International Journal of Science Education*, vol. 27 no. 3, pp. 281-302.
- KUF (1999) St. meld. nr. 39 (1998-99). *Forskning ved et tidsskille*. Kirke-, utdannings- og forskningsdepartementet, Oslo
- Kurten-Finnas, B. (2008). *Det var interessant man måste tänka så mycket. Öppna laborationer och V-diagram i kemiundervisningen [It was interesting when you had to think so much. Open investigations and Vee-heuristics within education in chemistry]*. Doctoral dissertation. Abo: Abo Akademis Forlag.
- Lavonen, J., Gedrovics, J., Byman, R., Meisalo, V., Juuti, K. & Uitto, A. (2008) Students' motivational orientations and career choice in science and technology: A survey in Finland and Latvia. *Journal of Baltic Science Education* 7(2) 86-103.
- Lavonen, J., Byman, R., Uitto, A., Juuti, K., & Meisalo, V. (2008). Students' Interest and Experiences in Physics and Chemistry related Themes: Reflections based on a ROSE-survey in Finland. *Themes in Science and Technology Education* 1(1), 736.
- Lavonen, J. (2008) Finland in PISA 2006 Scientific Literacy Assessment. In J. Hautamäki, E. Harjunen, A. Hautamäki, T. Karjalainen, S. Kupiainen, J. Lavonen, E. Pehkonen, P. Rantanen & P. Scheinin (Eds.), *PISA 2006: Analysis, Reflections, Explanations*, pp. 65-113. Helsinki: Ministry of Education Publications 2008:44. http://www.minedu.fi/OPM/Julkaisut/2008/PISA06._Analyses_Reflections_and_Explanations?lang=en
- Lavonen, J., Juuti, K., Byman, R. & Meisalo, V. 2006. How we can make upper secondary school physics interesting for students? *Giornale di Fisica*, 47(1), 41-52.

- Laws, P. M. (1996). Investigative work in the Science National Curriculum. *School Science Review*, 77, 17-25.
- Layton, D. (1991): *Science Education and Praxis: the Relationship of School Science to Practical Action*. *Studies in Science Education* 19, 43-79.
- Leach, J., Scott, P., Ametller, J., Hind, A. and Lewis, J. (2006) Implementing and evaluating teaching interventions: Towards research evidence-based practice? In: R. Millar, J. Leach, J. Osborne and M. Ratcliffe (Eds.), *Improving subject teaching: Lessons from research in science education*. London: Routledge.
- Lehesvuori, S., Viiri, J. & Scott, P. (in press) Teaching programme about teacher's talk in subject teacher training: course to reform and to develop student teachers' classroom talk.
- Leroy, N., Bressoux, P., Sarrazin, P., & Trouilloud, D. (2007). Impact of teachers' implicit theories and perceived pressures on the establishment of an autonomy supportive climate. *European Journal of Psychology of Education*, 22(4), 529-545).
- Martin Andrew J & Marsh Herbert W (2005) Student Motivation and Engagement in Mathematics, Science and English: Multilevel Modelling Paper MAR05402, SELF Research Centre, University Of Western Sydney, Australia, available at:<http://www.aare.edu.au/05pap/mar05402.pdf>
- McNally, J (2009) *Improving the professional learning of Teachers*, Routledge (forthcoming)
- McNally J. (2006) Confidence and Loose Opportunism in the Science Classroom: Towards a pedagogy of investigative science for beginning teachers *International Journal of Science Education* 28, 4, 423-438
- McNally, J., Cope, P., Inglis, W., & Stronach, I. (1997). The student teacher in school: Conditions for development. *Teaching and Teacher Education*, 13(5), 485-498.
- McNally, J., Blake, A., Corbin, B. & Gray, P. (2008) Finding an identity and meeting a standard: connecting the conflicting in teacher induction *Journal of Education Policy* 23, 3, 287-298.
- Millar, R., Lubben, F., Gott, R., & Duggan, S. (1994). Investigating in the school laboratory: Conceptual and procedural knowledge and their influence on performance. *Research Papers in Education: Policy and Practice*, 9(2), 207-248.
- Mitcham, C. (1994): *Thinking through Technology. The Path between Engineering and Philosophy*. Chicago & London: The University of Chicago Press.
- Mortimer, E. F., Lima-Tavares, M. & Jimenez-Aleixandre, M.P. (2008). Exploring students' dialogue with evolution and the influence of their questions and statements in the teacher's discourse. Paper presented at the NARST annual meeting, Baltimore, April.
- Mortimer, E.F. and Scott, P.H. (2003) *Meaning Making in Secondary Science Classrooms*. Buckingham, UK: OUP.
- Nott, M., & Wellington, J. (1996). Probing teachers views of the nature of science: How should we do it and where should we be looking? In G. Welford, J. Osborne, & P. Scott (Eds.), *Research in science education in Europe*. London: Falmer Press.
- Novak, J. D. & Gowin, D. B. (1984). *Learning how to learn*. Cambridge: Cambridge University Press. Novak, J. D. (1998). *Learning, creating and using knowledge*. Mahwah, NJ: Lawrence Erlbaum Associates, Publishers.
- OECD (2006) *Evolution of Student Interest in Science and Technology Studies; Policy Report*, Paris, OECD.
- Osborne J & Dillon J (2008) *Science Education in Europe: Critical reflections: A Report to the Nuffield Foundation* London, Nuffield Foundation.
- Ostermeier, C. (2004). *Kooperative Qualitätsentwicklung in Schulnetzwerken [Cooperative quality development in school networks]*. Münster: Waxmann.
- Ostermeier, C., & Prenzel, M. (2005). What can we learn from different forms of evaluation: Experiences from a quality development program in science and mathematics instruction. In J. Bennett, J. Holman, R. Millar & D. Waddington (Eds.), *Making the difference: Evaluation as a tool for improving science education* (pp. 145-158). Munster: Waxmann.
- Prenzel, M., Carstensen, C. H., Senkbeil, M., Ostermeier, C., & Seidel, T. (2005). Wie schneiden SINUS-Schulen bei PISA ab? Ergebnisse der Evaluation eines Modellversuchsprogramms [How SINUS-Schools perform in PISA. Findings from the evaluation of a pilot programme]. *Zeitschrift für Erziehungswissenschaft*, 8(4), 540-562.
- Public Understanding of Science. (2005). Retrieved February 9, 2005, from <http://pus.sagepub.com>
- Richoux H., Saint-Georges M., Simon C., 2005, Une question d'actualité: comment impliquer les élèves dans l'apprentissage en physique-chimie ? Des outils pour aider les enseignants à analyser et concevoir les activités expérimentales. *Bulletin de l'Union des Professeurs de Physique et de Chimie* 99 (876).
- Roth, W. M., & Tobin, K. (2001). Learning to teach science as practice. *Teaching and Teacher Education*, 17, 741-762.
- Saint-Georges M., Richoux H., Tiberghien A, (2005), Study of teachers' understanding of video extracts of students recorded in physics classroom, Communication to the fifth international conference of ESERA, Barcelona, August 2005. [Actes sur CD ROM].
- Savinainen, A. Scott, P. & Viiri, J. (2005) Introducing Forces as Interactions: An Effective Approach to Teaching Newton's Third Law, Using a Bridging Representation. *Science Education*, 89, 175 - 195.
- Schwarz Yael, Ben-Zvi Ruth & Hofstein Avi (2006) The use of scientific literacy taxonomy for assessing the development of chemical literacy among high school students *Chemistry Education Research and Practice* 7/4, 203-225.
- Scott, P., Mortimer, E. & Aguiar, O. (2006) The tension between authoritative and dialogic discourse: a fundamental characteristic of meaning making interactions in high school science lessons. *Science Education*, 90: 605-631, 2006.
- Scott, P. and Ametller, J. (2007) Teaching science in a meaningful way: striking a balance between 'opening up' and 'closing down' classroom talk. *School Science Review*, 88(324), pp. 77-83.

- Seidel, T., & Prenzel, M. (2006). Stability of teaching patterns in physics instruction: Findings from a video study. *Learning and Instruction*, 16, 228-240.
- Shapiro, B. L. (1996). A case study of change in elementary student teacher thinking during an independent investigation in science: Learning about the "face of science that does not yet know". *Science Education*, 80(5), 535-560.
- Shulman, L. S. (1986). Those who understand: knowledge growth in teaching. *Educational Researcher*, 15, 4 - 14.
- Sund, P., & Wickman, P.-O. (2008). Teachers' objects of responsibility - something to care about in education for sustainable development? *Environmental Education Research*, 14(2), 145-163.
- Tamir, P. (1991). Practical work in school science: an analysis of current practice. In B. E. Woolnough (Ed.), *Practical Science*. Buckingham: Open University Press.
- Tiberghien, A., & Buty, C. (2007). Studying science teaching practices in relation to learning. Timescales of teaching phenomena. In R. Pintó & D. Couso (Eds.), *ESERA Selected Contributions book*. (pp. 59-75). Berlin: Springer.
- TLRP (2006) *Science Education in Schools: Issues, Evidence and Proposals* London, Teaching and Learning Research Programme
- UFD (2005) St. meld. Nr. 20 ((2004-2005). Vilje til forskning. Utdannings- og forskningsdepartementet, Oslo.
- Uitto, A., Juuti, K., Lavonen, J., & Meisalo, V. (2008). The Importance of Pupils' Interest and Out-of-school Experiences in Planning Biology Lessons. *The Science Education Review* 7(1), 23-27
- Uitto, A., Juuti, K., Lavonen, J. & Meisalo, V. 2006. Is pupils' interest in biology related to their out-of-school experiences? *Journal of Biology Education* 40 (3), 124-129.
- UNESCO 1998 *The State of International Cooperation in Philosophy for Children: Paris Meeting*, Paris, UNESCO. Available at: http://www.ovc.ulaval.ca/ms/documents/unesco_march_1999.pdf
- Veal, W. (2004). Beliefs and knowledge in chemistry teacher development. *International Journal of Science Education*, 26(3), 329-351.
- Viiiri, J. & Saari, H. (2006) Teacher talk patterns in science lessons. Use in teacher education. *Journal of Science Teacher Education* 17 (4), 347-365.
- Walker, B. (1998) "Meetings without Communication: a study of parents' evenings in secondary schools" *British Educational Research Journal* Vol. 24, No 2.
- Woolnough, B. E. (Ed.). (1991). *Practical science*. Buckingham, England: Open University Press.