

Curriculum Vitae
Prof. Dr. Jan de Lange

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Introduction

Jan de Lange is past-chairman/director of the Freudenthal Institute and a full professor at University of Utrecht in the Netherlands. During his directorate the Freudenthal Institute was part of the Faculty of Mathematics and Computer Science and had as its task: *Innovation in Mathematics Education by Research, Implementation, Dissemination and Professionalization*. Following graduate work in mathematics at both the University of Leiden in the Netherlands and Wayne State University in Detroit, USA, he received his Ph.D. at the University of Utrecht. His thesis *Mathematics, Insight and Meaning* is on the development of a new applications oriented curriculum for upper secondary mathematics and more in specific the assessment problems that come with such a curriculum.

His research still addresses modeling and applications and assessment issues and has broadened to a variety of issues including multimedia and on issues related to implementation. The age range of the objects of many studies, the learners of mathematics, has increased from initially 16-19 year olds to 3 –19 year olds, if not wider. His most recent interest lies in the study of talents and competencies of children aged 3-5 years old, not restricted to mathematics, but in a very wide range of scientific reasoning using a very interdisciplinary approach. He is now Director of the ‘TalentPower’ project (TalentenKracht), a program in search of scientific reasoning competencies of young children.

On development, design and implementation

Jan de Lange served as Chairman of several Commissions for the Development of a New Curricula in the Netherlands (Hewet, Hawex, W 12-16, W-B Commission, ‘Profielen’ Coordination Commission), and served as supervisor to curriculum projects in the USA, Bolivia and South Africa, and has initiated the movement that has led to a Project that started in 2006 in Indonesia.

In the USA, he served (among others) as the supervisor of the Dutch component of the ARISE High School Curriculum Project, on the advisory board for the STEM Middle School Curriculum Project, and as the principle investigator for the Dutch component of the Mathematics in Context-Project. This last project has several follow up projects, both more developmental, as well as research projects.

The RAP (Research and Assessment) Project and CATCH (Classroom Assessment and Teacher Change) Project are two successful examples fitting in the continuous line of development in assessment issues.

He is Chairman of the Mathematics Expert Group of the OECD/PISA project and as such responsible for the frameworks for mathematics assessments. He also served on the Executive Committee of the Mathematical Sciences Education Board of the National Research Council of the National Academy of Sciences (Washington, DC). Furthermore he serves as a Core-Member on the OECD Network for Literacy and Numeracy, a project based on advances in Neuroscience, with a new science of learning as its aim. He is a member of the Technical Working Group on Content validity of NAEP.

At present he serves as Scientific Director of the TalentPower project.

On assessment

Jan de Lange served as Co-Principal Investigator of the Assessment Study Group of the National Center for Improving Student Learning and Achievement in Science and Mathematics in the USA. In 1999 a *Theoretical Framework for Classroom Assessment* was published as the result of this project. This framework can be seen as the state of the art follow-up of the 1987 thesis.

In the international comparative assessment area he has been member of the National Advisory Board TIMSS for the Netherlands, Member of the international commission for TIMSS-R, and is presently Chairman of the Mathematical Functional Expert Group of the OECD PISA Project. This OECD project is seeking for indicators for student achievement on mathematical literacy. As chairman of this commission he had a considerable influence in the writing process of the OECD Framework for mathematics, published in 1999, with revisions in 2003 and 2006 and considered as very influential, as more than fifty countries have adapted this framework by participating in PISA.

At the MSEB he acted as co-chair of the committee on Coherence of Mathematics Assessment Systems and Member on the Committee responsible for a study on advances in pre-school math- and science education.

Recently he also served on a content validity committee for NAEP.

On new media

Jan de Lange works closely together with a small innovative high-tech education company in California (Learning in Motion), that resulted in innovative and didactically and mathematically interesting products like an electronic Assessment Tool, a strongly interactive modeling program and new approach to K-2 math education implemented on a CD-ROM format.

In the Netherlands he inspired and co-founded a national project 'RekenNet' that runs since 1999 and was supervised by him as well. A preliminary English version is published under the name 'KidsKount'.

In the earlier mentioned "TalentPower" project (2006 onwards), both video and the web play an important role, as well as for data collection, and for dissemination and implementation issues.

In 2007 he founded the project 'KidsinControl', at the Platform BetaTechniek. Here children age 10-14 use professional simulation software in order to develop higher reasoning skills.

On dissemination

Jan de Lange has presented lectures in more than 40 countries and has written more than 300 publications. Many of the presentations and invitations can be considered as somewhat prestigious like several presentations at the National Academy of Sciences in Washington, USA; a presentation in 'Oberwohlfach'; keynotes at such large and important conferences as NCTM (1500 persons attending) and ICME (more than 1500). He was also invited to give a lecture at ICM conferences in Warschau, Beijing (declined) and Madrid (2006). Keynote lectures were given at many conferences in countries like: USA, Canada, Germany, Belgium, Denmark, Norway, Sweden, Iceland, United Kingdom, France, Spain, Portugal, Italy, Greece, Poland, Hungary,

Oman, Malaysia, Indonesia, Brunei, Australia, New Zealand, Bolivia, Brazil, Argentina, Mexico, Puerto Rico, Dutch Antilles, China, Japan, Zimbabwe, South Africa.

On research

Research focuses on assessment issues and technology, but is not limited to these aspects. Benchmark publications of more recent time are: 'Assessment: No Change without Problems' (1995), 'Using and Applying Mathematics in Education' in the International Handbook on Mathematics Education (1997), 'Looking through the TIMSS mirror from a teaching angle' (1997), 'Framework for Mathematics for OECD-PISA' (1999, 2003, 2006) and the 'Framework for Classroom Assessment in Mathematics' (2000), Measuring Mathematical Literacy in the Encyclopedia on Social Measurement, (2006, Elsevier-Reed) and Large-Scale Assessments (2007, International Handbook on Mathematics Teaching and Learning).

The students that are completing their Ph.D. at present under his supervision do studies in algebra, technology, minorities and mathematics, assessment, design and implementation.

In 2005 Jan de Lange has started a project for children aged 3-5 that brings together scientists from many different fields of research (i.e. neuroscience, psychology, pedagogy, mathematics, science). This is called TalentPower.

Born

The 26th of August 1943 in Leiden, the Netherlands.

Education

- 1957-1962 Secondary school: Chr. Lyceum Leiden. Exam HBS-B, 1962.
- 1964-1970 Study: Mathematics and Physics at the University of Leiden.
- 1971-1972 Mathematics at Wayne State University, Detroit, MI.
- 1987 Dissertation: *Mathematics, Insight and Meaning*. Utrecht, University of Utrecht.

Professional positions

- 1967-1969 Teacher Chr. Lyceum (High School) Leiden, the Netherlands.
- 1969-1971 Teacher Thomas More College, Den Haag, the Netherlands.
- 1970-1971 Teacher University of Utrecht, the Netherlands.
- 1971-1972 Graduate Assistant Wayne State University, Detroit, USA.
- 1972-1976 Teacher Lorentz College, Haarlem, the Netherlands.
- 1976-1980 Researcher at the Institute for Development Mathematics Education, I.O.W.O., Utrecht, the Netherlands.
- 1981-1988 Researcher at the Research group on Mathematics Education (OW&OC), University of Utrecht, the Netherlands.
- 1982-1990 Coordinator OW&OC, Utrecht, the Netherlands.
- 1986-1990 Acting Chairman OW & OC.

- 1990-2006 Chairman/Director Freudenthal Institute, University of Utrecht, the Netherlands.
- 1991-present Full professor (Chair: Mathematics and Computer Science Education), University of Utrecht, the Netherlands.
- 2003-present Founder/Director Freudenthal Institute-US, Madison, WI.
- 2005-present Founder/Scientific Director TalentenKracht (TalentPower).

Some other functions and events, past and present

- Supervisor TalentenKracht, Satellite Utrecht, The Netherlands
- Supervisor Kids-in-Control Project, The Hague, The Netherlands
- Member Program Commission VTB-Pro, The Hague, The Netherlands
- Member Education Commission on Images of the Brain, STT, The Hague, The Netherlands
- Member Technical Working Group on Content Validity, NAEP, Washington, USA
- Visiting Professor, University of Wisconsin, Madison 2003-2007
- Core Member OECD Network on Literacy and Numeracy, OECD, Paris.
- National Academy of Sciences, National Research Council: Mathematical Sciences Education Board, Executive Committee (Washington DC).
- National Academy of Sciences, National Research Council: Member Joint Committee of MSEB, BOTA, BICSE and COSE :On Assessment in Support of Instruction and Learning (Washington DC).
- Chairman OECD PISA Mathematics Expert Group (Paris, Melbourne).
- Board of Principal Investigators National Center for Improvement of Student Learning and Achievement (University of Wisconsin).
- Member 'Commissie van Leeuwen' (University of Utrecht).
- Jury Design Competition Ministry of Education (the Netherlands).
- Supervisor/Founder 'RekenNet' Project (Ministry of Education, the Netherlands).
- Supervisor 'Speciaal Onderwijs' Project (Ministry of Education, the Netherlands).
- Supervisor 'WINST' Project (Ministry of Education, the Netherlands).
- Principal Investigator CATCH Project (OERI funded; University of Wisconsin).
- Member Problem Solving Expert Group OECD PISA Project.
- Member 'Wissenschaftliche Beirat Institut der Didaktik der Mathematik' (Bielefeld, Germany).
- Honorary Director Institute for Mathematics Education (Beijing, China).
- Member Coordination Committee 'Stuurgroep Profielen' (the Netherlands).
- Chairman Center for Science and Math Education 1993-1994 (Utrecht, the Netherlands).
- Member 'Nederlandse Commissie Onderwijs Wiskunde (NCOW) van het Wiskundig Genootschap' (the Netherlands).
- Member Advisory Board International Conference on the Teaching of Mathematical Modeling and Applications, ICTMA.
- Member Advisory Board STEM project, NSF (Montana, USA).
- Member 'Commission Internationale pour l'Etude et l'Amelioration de l'Enseignement des Mathematiques', CIEAEM.

Organizer at ICME 5 Conference (Berkeley, USA).
 Chief organizer ICME 6 Conference (Budapest, Hungary).
 Lecturer ICME 7 Conference (Quebec, Canada).
 Plenary lecturer ICME 8 Conference (Sevilla, Spain).
 Chairman program commission CIEAEM 37 Conference (Leiden, the Netherlands).
 Organiser CIEAEM 40 Conference (Budapest, Hungary).
 Member International Committee on Mathematics Education ISTRON (USA/Europe).
 Member National Advisory Committee TIMSS (the Netherlands).
 Chairman Commission for the Development of a New Math Curriculum (the Netherlands).
 Chairman Study Commission Math-B. (the Netherlands).
 Principal Investigator Dutch Component Math in Context-project, NSF (USA).
 Supervisor Dutch Component ARISE project, NSF (USA).
 Supervisor MEMI-project (Bolivia).
 Supervisor MESA-project (South Africa).
 Supervisor Longitudinal Study Project (USA).
 Supervisor NCISLA Project (USA).
 Supervisor Math Assessment Collection Project (USA).
 Founding Editor 'Nieuwe Wiskrant': Journal for Math Education (the Netherlands).
 Founder/Supervisor Mathematics A-lympiad Math Competition (the Netherlands).
 Founder/Supervisor National Mathematics Days (the Netherlands).
 Supervisor Graphic Calculators Research Project (the Netherlands).
 Supervisor New Technology in Math Education Project (the Netherlands).
 Referent Foundation for Behavioral Sciences (the Netherlands).
 Referent AERA 1998, 1999, 2000 (USA).
 Subcontractor STREAM project, NSF (USA).
 Advisory Board MUSE magazine, Smithsonian/Carus (USA).
 Advisory Board MILE-project (the Netherlands).
 Co-chair (with T.A. Romberg) of Assessment Study Group NCISLA (USA).
 Principal Researcher in Research in Assessment Project team, RAP (USA).
 Member European Commission for Mathematics Education (Europe).
 Member TIMSS Repeat Commission (Boston, USA).
 Member 'Wiskundig Genootschap (WG)' (the Netherlands).
 Member 'Nederlandse Vereniging van Wiskundeleraren (NVvW)' (the Netherlands).
 Member Mathematical Association of America (USA).
 Member American Mathematical Society (USA).
 Member New York Academy of Sciences (USA).
 Member Editorial Board Journal of Mathematical Behavior (USA).
 Member Editorial Board Tinfon Journal on Education in Computer Science (the Netherlands).
 Member Netherlands Society of International Affairs (the Netherlands).

Some recent publications

- De Lange, J., E. Feijs & W. Uittenbogaard (2007). Ik ben alleen nieuwsgierig, *Talent, Tijdschrift over hoogbegaafdheid*, Jr. 9, Nr. 3 pp. 26-28
- De Lange, J., E. Feijs & W. Uittenbogaard (2007). TalentenKracht, *Talent, Tijdschrift over hoogbegaafdheid*, Jr. 9, Nr. 3 pp. 20-24
- De Lange, J. (2007) On design of items, especially more complex ones. In: Phil Daro, France Stancavage, Moreica Ortega, Lizanne deStefano and Robert Linn, *Validity Study of the NAEP Mathematics Assessment: grades 4 and 8*. AIR, Palo Alto pp F1-F6.
- Doorman, M., P. Drijvers, T. Dekker, M. van den Heuvel-Panhuizen, J. de Lange, M. Wijers (2007). Problem solving as a challenge for mathematics education in The Netherlands, *ZDM Mathematics Education*, 39, pp 405-418.
- Van Nes, F. & Jan de Lange (2007). Mathematics education and Neurosciences: Relating Spatial Structures to the Development of Spatial Sense and Number Sense. *The Montana Mathematics Enthusiast*, Vol. 4, no. 2 pp.210-229.
- De Lange, J. (2007). Aspects of the art of assessment design. In: Alan H. Schoenfeld (Ed.), *Assessing Mathematical Proficiency*. Cambridge: Cambridge University Press.
- De Lange, J. (2007). Large-Scale Assessment and Mathematics Education. In Frank K. Lester, Jr. (Ed.), *Second Handbook of Research on Mathematics Teaching and Learning*. (pp. 1111-1142). Charlotte, NC: National Council of Teachers of Mathematics (NCTM).
- De Lange, J. (2006). Mathematical literacy for living from OECD-PISA perspective. *Tsukuba Journal of Educational Study in Mathematics*. Vol. 25. Special Issue on The APEC-TSUKUBA International Conference "Innovative Teaching Mathematics through Lesson Study" (pp. 13-37). Tokyo, Japan: University of Tsukuba.
- De Lange, J. (2006). PISA: Does it really measure Literacy in Mathematics? . *Mathematik und Grundbildung*, Oostenrijk: Klagenfurt Universitaet.
- De Lange, J., Van Benthem, J., & Dijkgraaf, R. (2005). *TalentenKracht* [TalentPower]. Utrecht/Amsterdam: Freudenthal Institute.
- De Lange, J. (2005) Measuring Mathematical Literacy. In Kimberly Kempf-Leonard (Ed.), *Encyclopedia of Social Measurement* (pp. 533-541). Amsterdam: Elsevier-Reed.
- De Lange, J. & Romberg, T. (2005). Research in Assessment Practices. In T. Romberg, T. Carpenter and F. Draemock, *Understanding Mathematics and Science Matters*. New York: Lawrence Erlbaum, Mahwah.
- Lange, J. de (2005). Wiskunde om gecijferd te worden. *Nieuwe Wiskrant. Tijdschrift voor Nederlands WiskundeOnderwijs*, 24 (3), 42-48.
- Webb, D.C., Romberg, T.A., Dekker, T., De Lange, J. & Abels, M. (2004). Classroom Assessment as a Basis for Teacher Change. In T. A. Romberg, *Standards-Based Mathematics Assessment in Middle School; Rethinking Classroom Practice*. New York: Teachers College Press.
- Feijs, E. & De Lange J. (2004). The Design of Open-Open Assessment Tasks. In T. A. Romberg, *Standards-Based Mathematics Assessment in Middle School; Rethinking Classroom Practice*. New York: Teachers College Press.
- De Lange, J. & Romberg, T.A (2004). Monitoring Student Progress. In T.A. Romberg, *Standards-Based Mathematics Assessment in Middle School; Rethinking Classroom Practice*. New York: Teachers College Press.

- Committee on Assessment in Support of Instruction and Learning (J. de Lange, member). (2003). *Assessment in Support of Instruction and Learning*. Washington, DC: National Research Council.
- Lange, J. de (2003). Getob over de top. *Het onderwijsblad*, 14, 38-39.
- De Lange, J. (2003). Mathematics for Literacy. In B.L. Madison & L.A. Steen (Eds.), *Quantitative Literacy. Why Numeracy Matters for Schools and Colleges* (pp. 75-89). Princeton, NJ: The National Council on Education and the Disciplines.
- Lange, J. de (2003). Herziening profielen. Verdomming als beleid. *Nieuwe Wiskrant. Tijdschrift voor Nederlands WiskundeOnderwijs*, 22 (3), 4-5.
- De Lange, J. (2003). The meaning of PISA for mathematics teachers. *Educare News*, 133, 20-22.
- Organization for Economic Co-Operation and Development (OECD) [Mathematical Functional Expert Group {J. de Lange, Chair}]. (2003). *Framework for Mathematics Assessment*. Paris: OECD.
- Cappo, M. & De Lange, J. (2003) *Market to Market* [software]. Santa Cruz, CA: Learning in Motion.
- De Lange, J. (2002). *The meaning of PISA for teachers of mathematics. Providing World-Class School Education*. ACER Research Conference 2002. Proceedings, 33-36.
- De Lange, J. (2002). World Class Math Education Through Classroom Assessment. In P.L. Kimmelman & D.J. Kroeze, *Achieving World Class Schools: Mastering School Improvement Using a Genetic Model* (pp. 295-296). Norwood: Christopher-Gordon Publishers.
- De Lange, J. (2002). De kans voor het kind. *Bulletin. Onderwijs en Inspiratie*, 3, 52-53.
- De Lange, J. & Cappo, M. (2002). *Measuring Early Numeracy; A Test*. Santa Cruz, CA: Learning in Motion. (60 pp.).
- De Lange, J. (2001). Mathematics for Literacy. In NRC, *Quantitative literacy: Why Numeracy Matters for Schools and Colleges* (pp. 52-80). Washington, D.C.: National Academy of Sciences.
- De Lange, J. et al. (2001). *Mathematics in Context. A Map for a K-4 Curriculum*. Utrecht: Freudenthal Institute. (18pp. + 430 pp.)
- De Lange, J. & Feijs, E. (2000). *The Design of Open-open Assessment Tasks*. Paper presented at AERA 2000, New Orleans.
- De Lange, J. (2000). The Tides they are A-Changing. *The UMAP journal*, Spring 2000, 15-37.
- Organization for Economic Co-Operation and Development (OECD) [Mathematical Functional Expert Group {de Lange, Chair}]. (1999). *PISA Mathematics Framework*. Paris: OECD.
- De Lange, J. (1999). *Framework for Classroom Assessment in Mathematics* [www.fi.uu.nl]. Madison, WI: WCER/NCISLA.
- Cappo, M. & De Lange, J. (1999). *Market to Market. Software program for Early Childhood*. Santa Cruz, CA: Learning in Motion.
- De Lange, J. (1998). Real Problems in Real World Mathematics. In C. Alsina et al. (Eds.), *Proceedings of the 8th International Congress on Mathematics Education* (pp. 83-110). Sevilla: S.A.E.M. Thales.
- De Lange, J. (1998). An International Perspective on Improving Mathematics and Science Education in the United States. *Principled Practice*, 1 (2), 9-12.
- De Lange, J. (1997). *Looking through the TIMSS-mirror from a teaching angle. Learning from TIMSS: An NRC Symposium on the Results of the Third*

- International Mathematics and Science Study. Papers Prepared for a Symposium* (pp. 91-107). Washington, DC: National Academy of Sciences/National Research Council.
- Verhage, H. & De Lange, J. (1997). Mathematics education and assessment. *Pythagoras*, 42, 14-20.
- De Lange, J. & Cappo, M. (1996). *Telling Mathematical Stories. Scientific Background Discussion to NSF*. Santa Cruz, CA: Learning in Motion. (6 pp.)
- De Lange, J. (1996). Using and Applying Mathematics in Education. In Bishop, A.J, Clements, K., Keitel, C., Kilpatrick, J, and Laborde, C. (eds), *International Handbook of Mathematics Education*, pp. 49-97. Dordrecht/Boston, London: Kluwer Academic Publishers.
- De Lange, J. (1996). *Improving formal education by institutional and content reform* [paper presented at international conference on education]. Muscat (Oman).
- De Lange, J. (1995). Math education towards 2000. In Lee Peng Yee (Ed.), *ICMI CHINA Conference on Mathematical Education* (pp. 37-55). Shanghai.
- De Lange, J. (1995). Can We Solve The Problems? *The New Zealand Mathematics Magazine*, 32 (3), 1-17.
- De Lange, J. (1995). Assessment: No Change without Problems. In T.A. Romberg (Ed.), *Reform in School Mathematics* (pp. 87-172). Albany, NY: SUNY Press.
- Cappo, M. & De Lange, J. (1995). *Telling Mathematical Stories: a combination of research and practice*. Awarded Proposal to the National Science Foundation. Santa Cruz, CA: Learning in Motion. (27 pp.).
- De Lange, J. (1994). *The three levels of mathematical thinking* [internal publication]. Utrecht: Freudenthal Institute.
- De Lange, J. & Boertien, H. (1994). *The National Option of TIMSS in the Netherlands*. Enschede: University of Twente.
- De Lange, J. (1993). Curriculum Change-an American-Dutch Perspective. In D.F. Robitaille, D.H. Wheeler & C. Kieran (Eds.), *Selected lectures from the 7th International Congress on Mathematics Education: Québec, 17-23 August 1992* (pp. 229-249). Quebec: Les Presses de l'Université Laval.
- De Lange, J. (1993). Assessment in Problem-oriented Curricula. In N. Webb & A. Coxford, *Assessment in the Mathematics Classroom* (pp. 197-209). NCTM 1993 Yearbook. Reston, VA: NCTM.
- De Lange, J. (1993). *Higher Order (Un-)teaching*. In *Proceedings of the UCSMP*. (pp. 49-72).
- De Lange, J. (1993). Between End and Beginning. Mathematics Education for 12-16 Year Olds: 1987-2002. In L. Streefland (Ed.), *The Legacy of Hans Freudenthal* (pp. 137-160). Dordrecht: Kluwer Academic Publishers.
- De Lange, J. (1992). Higher Order (Un-)teaching. In I. Wirszup & R. Streit (Ed.), *Developments in School Mathematics Education around the World*. Reston, VA: NCTM.
- De Lange J. (1992). Assessing Mathematical Skills, Understanding, and Thinking. In R. Lesh & S. Lamon (Eds.), *Assessment of Authentic Performance in School Mathematics* (pp. 195-214). Washington, D.C.: American Association for the Advancement of Science.
- De Lange, J. & Verhage, H. (1992). *Data Visualization*. Pleasantville, NY: Sunburst.
- Romberg, T.A. and De Lange, J. (1990-1995) *Mathematics in Context, A Middle School Curriculum consisting of forty units*. Project leader and contributor to many units. Chicago: Encyclopedia Britannica/Austin, TX: Holt.

De Lange, J. & Kindt, M. (with H. Verhage). (1990). *Hewet, A high school curriculum*; 20 units, Houten: Educaboek.

Books

- De Lange, J., Routitsky, A., Stacey, K., Turner, R. & Wu, M. (in progress). *Mathematical Literacy and Instruction. PISA 2003 Thematic report 7*. Paris: OECD.
- De Lange, J., & Turner, R. (in progress): *Classroom assessment in Mathematics and PISA*. Melbourne: ACER.
- Dekker, T., Lagerwaard, K., de Lange, J., Limpens, G. & Wijers, M. (2006). *Wiskundige geletterdheid volgens PISA. Hoe staat de vlag erbij? 1. Analyse*. Utrecht/Arnhem: Freudenthal Instituut/Cito.
- Dekker, T., Lagerwaard, K., de Lange, J., Limpens, G. & Wijers, M. (2006). *Wiskundige geletterdheid volgens PISA. Hoe staat de vlag erbij? 2. Opgaven*. Utrecht/Arnhem: Freudenthal Instituut/Cito.
- De Lange, J. (Ed.). (1994). *Wiskunde B-VWO*. Utrecht: Freudenthal Institute. (106 pp.).
- De Lange, J., Van Reeuwijk, M., Burrill, G. & Romberg, T. (1993). *Learning and Testing. Mathematics in Context*. Pleasantville, NY: Sunburst/Wings for Learning. (210 pp.).
- Lange J. de, Huntley, I., Keitel, C. & Niss, M. (Eds.) (1993). *Innovation in Mathematics education by Modelling and Applications*. Chichester: Ellis Horwood. (392 pp.).
- De Lange, J., Burrill, G., Burrill, J.C., Coffield, P., Davis, G., Resnick, D. & Siegel, M. (1992). *Data Analysis and Statistics across the Curriculum*. Reston: NCTM. (88 pp.).
- De Lange, J., Chambers, D.L., Meiring, S.P., Rubenstein, R.N. & Schultz, J.E. (1992). *A core Curriculum and Evaluation Standards for School Mathematics*. Reston: NCTM. (152 pp.).
- De Lange J., Goddijn, A., Krabbendam, H. & Roodhardt, A. (1990). *Elaboración de graficas*. Salamanca, Universidad de Salamanca. (210 pp.).
- De Lange, J. & Doorman, M. (Eds.) (1988). *Senior secondary mathematics education*. Utrecht: OW & OC. (251 pp.).
- De Lange, J. (1987), *Mathematics, Insight and Meaning*. Doctoral thesis. Utrecht: OW & OC. (320 pp.).
- De Lange, J. (Ed.) (1985). *Mathematics for All in the Computer Age*. Utrecht: OW & OC. (420 pp.).
- De Lange, J. (1977). *Universitair Informatica Onderwijs in Nederland*. Utrecht: IOWO. (177 pp.).

Software

- De Lange, J. et al. (2000), *Market to Market*. Santa Cruz (CA): Learning in motion.
- De Lange, J. et al. (1998), *AssessMath!* Santa Cruz, CA: Learning in Motion.
- De Lange, J. (1993), *Ballooning*. Scotts valley, Pleasantville: Wings for Learning/Sunburst.
- De Lange, J. (1992), *Flying through Math*. Scotts valley, Pleasantville: Wings for Learning/Sunburst.

Presentations

Some of the key presentations:

- 2007-Opening Invited Lecture: 'TalentenKracht en Techniek', Joure, NL
- 2007-Invited Lecture: 'Curious Minds', NEMO, Amsterdam
- 2007-Invited Lecture, 'Scientific Reasoning Talents', SRON, Dalfsen, NL
- 2007-Key Lecture, 'Mathematical Literacy and PISA', Valladolid, Spain, (March)
- 2007-Key Lecture, 'TalentenKracht', Rhenen, The Netherlands (February)
- 2007-International Colloquium, 'TalentPower', University of Leuven, Belgium, (February)
- 2006-Invited Lecture, 'TalentenKracht', Amsterdam, Netherlands (November)
- 2006-Invited Lecture, 'PISA and Mathematical Literacy', Lyon, France (October)
- 2006-International Congress of Mathematicians (ICM) 2006. 'PISA vs. TIMSS, Madrid, Spain. (August)
- 2006-Key Lecture on Assessment: 'Classroom Assessment Problems' Wisconsin Math Council 2006. Green Lake, USA. (May)
- 2006-Key Invited Lecture: 'Mathematical Literacy', Tokyo, Japan
- 2005-RME Conference. 'On Realistic Mathematics Education', Madison, USA. (November)
- 2005-Lecture: workshop 'Improving Educational Design Worldwide'. International Society for Design and Development in Education. Oxford, UK. (September)
- 2005-Plenary Lecture: section 'Didaktik der Mathematik'. Mathematik 2005, University of Klagenfurt. Klagenfurt, Germany. (September)
- 2005-Lecture. Symposium Hans Freudenthal 100. Utrecht, the Netherlands. (September)
- 2005- Invited Lecture: Learning Mathematics and the Brain, OECD, Madrid, Spain
- 2005-Keynote: 'Hans Freudenthal 100'. Utrecht University Alumni Presentation, Faculty Club. Utrecht, the Netherlands. (September)
- 2005-Invited Lecture: 'Promises and Perils of PISA'. 2nd Joint-AMS-DMV conference. Mainz, Germany.
- 2005-Opening Lecture: 'Recent Developments in Mathematics Education'. NWD (Dutch Mathematics Days). Noordwijkerhout, the Netherlands.
- 2005-Keynote. On Assessment and Evaluation of Mathematics Education'EHSAL. Brussels, Belgium.
- 2004-Invited Lecture Series. University of Montana. Missoula, Montana, US
- 2004-Invited Lecture: 'Literacy and Learning'. Brain Symposium National Academy of Sciences. Amsterdam, the Netherlands.
- 2004-Key notes: 'Mathematics education in the U.S.; is there still hope?' Utrecht University Alumni Presentation. Los Angeles, New York & Washington DC, USA.
- 2004-Invited Lecture: 'Assessment in Mathematics Symposium: Key issues in Mathematics Assessment'. MSRI, University of California. Berkeley, CA, USA.
- 2003-Invited Lecture: 'Sind die Deutschen Schuler doof? Trends im Mathematikunterricht aus internationaler Perspektive' (Are the German students dumb? Teaching mathematics in international perspective). Georg-August University of Göttingen, Germany.
- 2002-Invited Lecture: 'Kansen voor Wiskunde' (Chances for Mathematics). Day of Teachers 2002. Groningen, the Netherlands.
- 2002-Invited Lecture: 'Future Directions for PISA Mathematics'. OECD's PISA 2000 Symposium. Berlin, Germany.

- 2002–Invited Lecture: ‘The Meaning of PISA for Mathematics Teachers’. PISA Expert Group Meeting. Melbourne, Australia.
- 2002–Keynote: ‘Problems with Real-World Problems’. PISA Meeting. Copenhagen, Denmark.
- 2002–Keynote: ‘What’s There for Teachers’. International Studies on Math Education. Philadelphia, USA.
- 2001–Keynote: ‘Implementation of New Curricula: Challenges and Problems’. Australian Association of Teachers in Mathematics. Canberra, Australia.
- 2001–Keynote: ‘Classroom Assessment as a Tool for Teacher Change’. Philadelphia, USA.
- 2001–Keynote: ‘A Framework for Mathematics Assessment’. OECD-National project managers. Brussels, Belgium.
- 2001–Invited Lecture: ‘Classroom assessment and High Stakes Testing’. National Council of Teachers in Mathematics. Orlando, USA.
- 2001–Keynote: ‘From Framework to Items’. OECD National Projects Managers. Lisbon, Portugal.
- 2001–Keynote: ‘The 2003 Framework for Mathematics’. OECD Board of Participating Countries. Paris, France.
- 2001–Keynote: ‘Improving Mathematics Education by Improving Assessment’. Philadelphia, USA.
- 2001–Keynote: ‘The Framework and Item Development in Mathematics’. Forum of OECD. Dublin, Ireland.
- 2001–Keynote: ‘The Item Development for PISA: Where we are and Why’. Forum of OECD. Nijmegen, the Netherlands.
- 2001–Keynote: ‘Neue Entwicklungen im Mathe Unterricht’. Bundesprojekt. Erlangen, Germany.
- 2001–Keynote: ‘Recent Developments in Realistic Mathematics Education’. Association for Research in Mathematics Education. Norrköping, Sweden.
- 2001–Invited Lecture: ‘Towards Conceptual Understanding in Mathematics Education’. Biennalen. Norrköping, Sweden.
- 2001–Keynote: ‘Mathematics Education: Towards Relevance’. Norrköping, Sweden.
- 2001–Keynote: ‘The Future has no future’. Association of Directors of Primary schools. The Netherlands.
- 2001–Keynote: ‘Steigerung in Mathematikunterricht’. BLK. Erlangen, Germany.
- 2001–‘The new framework’. NPM, OECD. Lisbon, Portugal.
- 2001–‘A framework for Mathematics’. OECD. Paris, France.
- 2001–Staff colloquium, PISA und RME. Köln, Germany.
- 2001–Keynote: ‘Bundes Eltern Tagung, Mathe Unterricht und PISA’. Germany.
- 2001–PME 25 Opening Keynote: ‘Progress and Problems in Mathematics Education’. Utrecht, the Netherlands.
- 2001–PME 25 Summer School Workshop: ‘Assessment in RME’. Utrecht, the Netherlands.
- 2000- Keynote: ‘Mathematics education and PISA’ ITB, Bandung, Indonesia
- 2000–Keynote: ‘Mathe ist Top, Problem Orientierter Mathe Unterricht’. Duisburg, Germany.
- 2000–Invited: ‘Problems and Assessment’. Bielefeld, Germany.
- 2000–‘ICT en onderwijs’. RAI, Ministry of Education. Amsterdam, the Netherlands.
- 1999–‘Die Grundbildung in Mathematik’. Osnabrück, Germany.
- 1999–‘Assessment and Classroom Practice’. Madison, USA.
- 1999–‘TIMSS and PISA and the Classroom Reality’. Minneapolis, USA.

1999–‘Technologie in Theorie en Praktijk’. Almere, the Netherlands.

1999–Technologie in het Onderwijs, RAI. Amsterdam, the Netherlands.

1999–‘Algebra, Assessment and Technology’. NCTM. San Francisco, USA.

1999–‘Realistic Mathematics Education’. Hannover, Germany.

1998–‘Recent Developments in Mathematics Education’. GDM. Osnabruck, Germany.

1998–Plenary Lecture: ‘Scholing en Scholen in 2005’. VVO. Enschede, the Netherlands.

1998–‘A Framework for Indicators in Mathematics Education’. OECD. Paris, France.

1998–Presentation: ‘A Framework for Mathematics Assessment’. OECD. Arnhem, the Netherlands.

1998–Plenary Lecture: ‘Multiple Models’. International Conference on Modeling in Mathematics Education. Utrecht, the Netherlands.

1998–Keynote: ‘From Apples and Citrons. Algebra from a Historical Perspective’. International Conference on Mathematics Education. Samos, Greece.

1998–‘The Teaching and Learning of Algebra’. NCTM Conference. Washington, DC, USA.

1998–‘Assesment in RME’. Summer Institute. Utrecht, the Netherlands.

1998–‘Realistic Mathematics Education’. Summer Institute. Bandung, Indonesia.

1998–‘Mathematics: Product vs. Process’. New York, USA.

1998–Presentation: ‘Wiskunde in Profielen’. Wiskundig Genootschap. Enschede, the Netherlands.

1998–Keynote: ‘Wiskunde, een vak apart’. Sporen conference. Noordwijkerhout, the Netherlands.

1998–Workshop: ‘Assessment in Mathematics’. New York, USA.

1998–Invited Lecture. Conference International Mathematical Union. Berlin, Germany.

1998–Invited Lecture. International Conference on Teaching of Mathematics. Samos, Greece.

1997–Keynote Speaker and Advisor to Department of Education. Kristiansand, Norway.

1997–Keynote Speaker at Conference on Math Education. Hafnarfjordur, Iceland.

1997–Keynote Speaker at National Conference for Advisors in Math Education. Roskilde, Denmark.

1997–Keynote Speaker at Conference for Principals of Elementary Schools. The Netherlands.

1997–Keynote Speaker at National Research Council TIMSS Meeting. Washington DC, USA.

1997–Keynote Speaker 75th NCTM. Minneapolis/St.Paul, USA.

1996–Keynote Speaker National Conference on Mathematics Education. Kopenhagen, Denmark.

1996–Keynote Speaker International Conference on Assessment and Evaluation in Mathematics and Science. Brunei.

1996–Plenary Lecture ICME 8. Sevilla, Spain.

1995–Keynote Speaker at Montana Regional Conference. Missoula, USA.

1995–Guest Lecture Curtin University. Perth, Australia.

1995–Keynote Lecture New Zealand Conference on Mathematics Education. Auckland, New Zealand.

1994–Plenary Lecture at Regional ICMI Conference. Shanghai, China.

1992–Lecture at Conference on Assessment of Authentic Performance. Princeton, USA.
 1992–Plenary Lecture at ICME 7. Quebec, Canada
 1992–Keynote, Primer Congreso Boliviano de Matematica, Cochabamba, Bolivia.
 1991–Plenary Lecture International Conference on Math. Education. Chicago, USA.
 1990– Invited Lectures at University of Salamanca, Spain
 1990–Presentation at Academy of Sciences. Washington DC, USA.
 Before 1990: Many presentations in Norway (1978), Brazil (1978, 1984), Argentina (1984, 1988), USA (1988), Mexico (1984, 1988), Spain (Barcelona, 1989), Germany (1980), etc.

Thesis supervision

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Abbreviations:

MSEB: Mathematical Sciences Education Board.
MSRI: Mathematical Sciences Research Institute.
NCISLA: National Center for Improving Student Learning and
Achievement in Mathematics and Science.
NCTM: The National Council of Teachers of Mathematics.
NRC: National Research Council.
OECD: Organization for Economic Co-operation and Development.
WCER: Wisconsin Center for Education Research.