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## A selected list of publications for **Professor Celia Hoyles**

### **Books and Monographs**

Hoyles, C. and Sutherland, R. (1992) *Logo Mathematics in the Classroom*. London: RoutledgeFalmer.

Hoyles C. and Noss, R. (1992) (eds) *Learning Mathematics and Logo*. Cambridge MA: MIT Press.

DiSessa, A., Hoyles, C., and Noss, R. (1995) (eds) *Computers for Exploratory Learning*. Berlin: Springer-Verlag.

Noss, R. and Hoyles, C. (1996) *Windows on Mathematical Meanings: Learning Cultures and Computers*. Dordrecht: Kluwer Academic Publishers.

Hoyles, C., Morgan, C. and Woodhouse, G. (1999) (eds) *Rethinking the Mathematics Curriculum*. Studies in Mathematics Education Series 10. London: RoutledgeFalmer.

Hoyles, C., Foxman, D. and Küchemann, D. (2002) *A comparative study of geometry curricula*. London: Qualifications and Curriculum Authority.

Hoyles C., Wolf A., Molyneux-Hodgson S. and Kent, P. (2002), *Mathematical Skills in the Workplace: Final Report to the Science, Technology and Mathematics Council*. London: Institute of Education, University of London/STM Council

Kilpatrick, J., Hoyles, C., Skovsmose, O. (eds.) in collaboration with Valero, P. (2005), *Meaning in Mathematics Education*, Springer USA

Hoyles. C and Lagrange J-B (eds) *Digital technologies and mathematics teaching and learning: Rethinking the terrain* Springer (2009, in press)

Hoyles, C. and Noss, R. *Improving Mathematics at Work* Routledge (accepted for publication, to be submitted 2009)

## Selected refereed journals and book chapters

### 1982-1999

- Hoyles, C. (1982) 'The pupil's view of mathematics learning'. *Educational Studies in Mathematics*, 13, October, 349-372.
- Hoyles, C. and Eraut, M. (1989) 'Groupwork with Computers'. *Journal of Computer Assisted Learning*, 5,1, March, 12-24.
- Hoyles, C. (1990) 'Mathematics in Prime-Time Television: The story of Fun and Games'. In Howson, A. and Kahane, J-P. (eds) *The Popularisation of Mathematics*, pp.124-135. CUP
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- Hoyles, C. (1991) 'Developing Mathematical Knowledge Through Microworlds'. In Bishop A.J., Mellin-Olsen, S. and Van Dormolen, J. (eds) *Mathematical Knowledge: Its growth through teaching*, pp.147-172. Dordrecht: Kluwer.
- Hoyles, C., Healy, L. and Pozzi, S. (1992) 'Interdependence and Autonomy: Aspects of Groupwork with Computers'. In Mandel, H., De Corte, E., Bennett S.N. and Friedrich H.F (eds), *Learning and Instruction, European Research in International Context*. Vol. 2, pp.239-257.
- Hoyles, C. (1992) 'Mathematics Teaching and Mathematics Teachers: A Meta-Case Study'. *For the Learning of Mathematics*, 12, 3, November, 32-44.
- Hoyles, C., (1993) 'Microworlds/Schoolworlds: The transformation of an innovation'. In Keitel, C., Ruthven, K. (eds) *Learning from Computers: Mathematics Education and Technology*. NATO ASI, Series F: Computer and Systems Sciences, 121, 1-17.
- Pozzi, S. Healy, L. and Hoyles, C. (1993) 'Learning and Interaction in Groups with Computers: When do Ability and Gender Matter?' *Social Development*, Special Issue 2, 3, 222-241.
- Hoyles, C. (1994) *Television Mathematics: Cultivation or Distortion?* First European Congress of Mathematics. Volume III Round Tables, Paris, 6-10 July1992, Birkhauser Verlag pp.134-138.
- Hoyles C. and Forman E. (1995) Guest Ed., Special Issue: 'Processes and Products of Collaborative Problem Solving: some interdisciplinary perspectives'. *Cognition and Instruction*. Lawrence Erlbaum Assoc.
- Noss, R. and Hoyles, C. (1996) 'The Visibility of Meanings: Modelling the Mathematics of Banking'. *International Journal for Computers in Mathematics Learning*, 1, 1, 3-31.

- Hoyles, C. (1996) 'The Curricular Shaping of Students' Approaches to Proof'. *For the Learning of Mathematics*, 17,1, 7-15.
- Hoyles, C. and Kahn, P.E. (1997) 'The Changing Undergraduate Experience: A Case Study of Single Honours Mathematics in England and Wales'. *Studies in Higher Education*, 22, 3, 349-362.
- Hoyles C., Healy L. and Noss R. (1997) 'The Construction of Mathematical Meanings: Connecting the Visual with the Symbolic'. *Educational Studies in Mathematics*. 33, 2, 203-233.
- Hoyles, C. (1998) 'A Culture of Proving in School Mathematics?' In Tinsley J.D. and Johnson, D.C. (eds) *Information and Communications Technologies in School Mathematics*, Chapman and Hall, pp.170-181.
- Pozzi, S., Noss, R. and Hoyles, C. (1998) 'Tools in Practice'. *Educational Studies in Mathematics*, 36, 2, 105-122.
- Healy, L. and Hoyles, C. (1999) Visual and Symbolic Reasoning in Mathematics: Making Connections with Computers? *Mathematical Thinking and Learning*, 1, 1, 59-84.
- Noss, R., Pozzi, S. and Hoyles, C. (1999) 'Touching epistemologies: statistics in practice'. *Educational Studies in Mathematics*, 40, 25-51.
- Healy, L. and Hoyles, C. (2000) 'A Study of Proof Conceptions in Algebra', *Journal for Research in Mathematics Education*, 31, 4, 396-428.
- Hoyles C., Pozzi S. and Noss R. (2000) 'Working Knowledge: Mathematics in Use'. In Bessot, A. and Ridgway, J. (eds), *Education for Mathematics in the Workplace*, pp.17-35. Kluwer Academic Publishers. since 2001)
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- Bakker, A., Hoyles, C., Kent, P., and Noss, R. (2006). "Improving work processes by making the invisible visible". *Journal of Education and Work*, 19(4), pp 343- 361
- Küchemann, D. and Hoyles, C. (2006) Influences on students' mathematical reasoning and patterns in its development: insights from a longitudinal study with particular reference to geometry *International Journal of science and maths education* ISSN 1571-0068 (Print) 1573-1774 (Online) Springer Netherlands, 4 (4) pp 581- 608
- Hoyles, C., Lagrange J.B. and Noss, R. (2006) Developing and evaluating alternative technological infrastructures for learning mathematics' in Maasz, J, and Schloegmann, W. (eds) *New Mathematics Educations Research and Practice* Sense Publishers ISBN 9077874747, pp 278- 300
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- Kent, P., Noss, R., Guile, D., Hoyles, C., and Bakker, A. (2007). "Characterising the use of mathematical knowledge in boundary crossing situations at work". In P. Kent, C. Hoyles, R. Noss, D. Guile and A. Bakker (Eds) special issue on "Learning and Technology at Work" *Mind, Culture, and Activity*, volume 14, no 1-2.pp 64- 82
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- Küchemann, D. and Hoyles, C. (2009) From empirical to structural reasoning in mathematics: tracking changes over time In Stylianou, D.A, Blanton, M. L. and Knuth, E.J. (Eds) Teaching and Learning Proof Across the Grades K-16 Perspective. *Lawrence Erlbaum Associates* pp171- 191
- Noss, R., Hoyles, C., Mavrikis, M., Geraniou, E., Gutierrez-Santos, S. and Pearce, D. (2009, issue 4). Broadening the sense of 'dynamic': a microworld to support students' mathematical generalisation. In Hegedus, S. and Moreno-Armelia, L. (eds) Transforming Mathematics Education through the use of Dynamic Mathematics Technologies, Special Issue, *Zentralblatt für Didaktik der Mathematik (ZDM)*. The International Journal on Mathematics Education pp
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## In press

- J. Confrey, C. Hoyles, D. Jones, K. Kahn, A.Maloney, K.H.Nguyen, R. Noss and D.Pratt(2009, in press) Designing software for mathematical engagement through modelling in Hoyles. C and Lagrange J-B (eds) *Digital technologies and mathematics teaching and learning: Rethinking the terrain* Springer (in press)