Recommended and suggested reading and links to other resources

Cognitive Acceleration (Let's Think) has a long history and has been used as evidence of changing pedagogy in schools in the UK and around the world. The 2014 Research Excellence Framework (REF, 2014) used Cognitive Acceleration as an example of impact of research from King's College, London:

The **Economics and Social Research Council** (ESRC) summarised recent studies on Cognitive Acceleration

There is a brief overview of Cognitive Acceleration on Wikipedia

See also the Let's Think website

Cognitive Acceleration through Science Education (CASE)

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Materials of CASE

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McCormack, L. (2009). The use of CASE to bridge the transition between the primary and secondary school science in Ireland. *School Science Review*, 98, (362), 47-54.

McLellan, R. (2006). "The Impact of Motivational "World-view" on Engagement in a Cognitive Acceleration Programme." *International Journal of Science Education* 28(*7*), 781-819.

Miller, S., Venville & Oliver, M. (2014). *Cognitive Acceleration*, chapter in Encyclopedia of Science Education, Springer

Mobbs, E. (2016). Effects of a modified Thinking Science program for Year 8 students of various abilities. *Teaching Science*, 62(*3)*, 45-49.

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Oliver, M., Venville, G., Adey, P. (2012). Effects of a Cognitive Acceleration Programme in a Low Socioeconomic High School in Regional Australia. *International Journal of Science Education* 34(9), 1393-1410.

Oliver, M. & Venville, G. (2015). *Cognitive acceleration through science education: the CASE for thinking through science*, in The Routledge International Handbook of Research on Teaching Thinking, eds R. Wegerif, L. Li, J. Kaufman.

Oliver, M. & Venville, G. (2017). Bringing in CASE from the cold: the Teaching and Learning of Thinking. *Research in Science Education. (47)*, 49-66.
Shayer, M., (1999). Cognitive acceleration through science education II: its effects and scope. *International Journal of Science Education*, 21, (8), 883-902.

Smith, T. (2016). Thinking Science Australia: A short history of how thirty science lessons transform learning and teaching. *Teaching Science*, 62(*3)*, 16-21.

Venville, G. and M. Oliver (2015). "The impact of a cognitive acceleration programme in science on students in an academically selective high school." *Thinking Skills and Creativity* 15(0): 48-60.

CASE in Year 7 as experienced and explained on Teachers' TV

Cognitive Acceleration through Mathematics Education (CAME)

Adhami, M. (2003). From lesson objectives to lesson agenda: flexibility in whole class lesson structure, in Thompson, I. (2003) Enhancing primary mathematics teaching, Open University Press pp 65-77.

Adhami, M., Johnson, D.C. and Shayer, M., 1998. Cognitive development and classroom interaction: a theoretical foundation for teaching and learning. In Information and Communications Technologies in School Mathematics (pp. 205-213). Springer, Boston, MA.

Finau, T., Treagust, D.F., Won, M. et al. (2016). Effects of a Mathematics Cognitive Acceleration Program on Student Achievement and Motivation. *International Journal of Science and Mathematics Education.*

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Let's Think English[1]

Smith, L. (2016). *Really raising standards in GCSE English: responding effectively to the new specifications and Progress 8*. King's College London.

The Let's Think in English blog:
https://www.letsthinkinenglish.org/blogs/

Primary Let's Think

Adey, P., Nagey, F., Robertson, A., Serret, N., & Wadsworth, P. (2003). Let's Think Through Science! 7& 8. A programme for developing thinking in science with seven- and eight- year olds. Windsor: NFER-NELSON.

Adey, P., Robertson, A., & Venville, G. (2001). Let's Think! A programme for developing thinking with five- and six- year olds. Windsor: NFER-NELSON.

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[1] NB As Let's Think English is a relatively new project, much of the research into its impact is not yet completed or published.

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Professional Development of and for teachers

Adey, P, Hewitt, G, Hewitt, J, & Landau, N (2004) *The Professional Development of Teachers: Practice and Theory.* Dordrecht: Kluwer Academic.

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Key and classical texts from Philip Adey, Michael Shayer

Adey, P., & Dillon, J. (2012). *Bad Education: Debunking Myths in Education*. Maidenhead: Open University Press.

Adey, P & Shayer, M (1994) *Really Raising Standards*. London: Routledge

Shayer, M (2008) Intelligence for education: as described by Piaget and measured by psychometrics. *British Journal of Educational Psychology*, 78, 1-29

Shayer, M. (2003). Not just Piaget; not just Vygotsky, and certainly not Vygotsky as alternative to Piaget. *Learning and Instruction* 13, 465-485

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