

One Day Conference 7<sup>th</sup> July 2017 York St John University, York

**Reasoning: Developing Skills for 21st Century Learners** 

**SESSIONS** 

## Let's Think English

Join Laurie Smith and Michael Walsh, the creators of Let's Think in English, to learn more about the LT pedagogy and to sample lessons for Key Stage 1 and 2. Over 150 primary schools in the UK as well as a number of international schools are using the programme and attendees will have the chance to enjoy a lesson simulation and evaluate the programme. You will be provided with the lesson plans and resources to try a LTE lesson with your class.

# Preparing for challenge: the role of concrete preparation in supporting reasoning

In this workshop, Sarah Seleznyov explores how a process of carefully constructed 'concrete preparation' can prepare pupils to tackle a challenging problem. She explores how an effective concrete preparation can increase pupils' engagement and motivation, and lay the foundations for effective problem solving approaches

## Progression in teaching thinking: the Let's Think teacher

In this workshop, Jemma Michelson, an experienced Let's Think Maths teacher, talks about her progression with Let's Think and the impact this has had on pupils she has taught, on her own practice and that of teachers she has supported. She will also talk about becoming an apprentice Let's Think tutor.



## Introduction to Let's Think Secondary Science

In this workshop Kate Donegan and LTSS teachers will share the journey that led from CASE to LTSS. They will introduce a range of the activities and illustrate the impact LTSS has had upon those involved.

## Let's Think Maths (primary)

After the KS3 Thinking Maths resource was published Michael Shayer and Mundher Adhami turned their attention to developing the thinking of younger children. The primary Let's Think Maths approach involves four different publications spanning the whole of the primary phase. Alan Edmiston will focus upon the development of thinking through ratio to illustrate how Let's Think Maths can challenge and enhance the reasoning of all children.

## Using collaboration to develop reasoning: the role of social construction

In this workshop, Sarah Seleznyov explores why collaborative group work is a better approach to differentiation than ability grouping. The workshop explores models and techniques for collaborative talk that can enable the social construction of ideas and suggests useful resources for teachers wanting to use collaborative learning in their classrooms.

# Let's Think and Ericsson's deliberate practice - really raising attainment

Led by Laurie Smith and Michael Walsh, this workshop explores the similarities between Let's Think and Ericsson's deliberate practice as a way of developing expertise in students and teachers. In particular, we show that knowledge and skills are developed together, using Ericsson's evidence that knowledge is most effectively acquired and retained when used for a purpose. You will be able to take away one or two Let's Think lessons to try in your school.



### Why LTSS?

The data collected in 2013 from fifty secondary schools across England revealed that children at the start of secondary education are now thinking at a significantly lower level than their counterparts in 1980. David Bailey and Julian Clarke will share this data and highlight why we ignore the development of thinking and reasoning in KS3 at our peril.

## Let's Think Maths (secondary)

The original Thinking Maths publication is now almost 20 years old, yet the lessons are still relevant and making a difference in schools today. Alan Edmiston, who has updated many of the lessons, will introduce participants to a sample of the activities, the ideas behind Thinking Maths and the pedagogical implications of their use in KS3 classrooms.

## Metacognition for enhanced reasoning: developing pupil metacognition to improve learning?

In this workshop Mundher Adhami and Sarah Seleznyov define metacognition and its known impact and explore the three cognitive domains within which it operates. They explore how best to approach metacognition in the three phases of a lesson and share useful techniques for developing metacognitive thinking in pupils.



## Going further with Let's Think

Join us to learn more about the Let's Think development programme for schools and individuals. Sarah Gill, Deputy Head and Kate Elander, Maths Lead at Hugh Myddelton Primary, London, will provide insight into their school's development towards Let's Think accreditation. Leah Crawford, LTE lead tutor for primary and secondary networks in Hampshire, will recount her journey to becoming a tutor and how the programme has influenced her. The workshop will be chaired by Laurie Smith and Michael Walsh from Let's Think in English.

## Where next for LTSS?

The first four years of the LTSS project have resulted in more questions than answers. Looking forward Anita Backhouse and teachers from our schools will consider how we can take on board what LTSS has revealed about 21st century pupils' cognitive abilities and contemporary pedagogic practice and look forward to a brighter Let's Think future.



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**SPEAKERS** 

#### Mundher Adhamí



Mundher was a founding member and Director of Lets Think Forum established in 2010. His field of interest is an integrated cognitive approach to the curriculum, pedagogy and related professional development of teachers. He was the CAME principal researcher at Kings College London 1993-2004 with Professors Michael Shayer and David Johnson. Until 1993 Mundher was the GAIM GCSE officer at the London University exam board. This followed R&D work in Graded Assessment in Mathematics (GAIM) with Professor Margaret Brown. Mundher had earlier switched career to teaching from geophysics (Moscow State University 1967 and MSc at Durham UK 1968) and related geo-technical and computer dynamic modelling (1974).

#### Aníta Backhouse



Anita Backhouse has been involved with Cognitive Acceleration and latterly Let's Think since the early 1990s when she worked as a secondary science teacher. She was instrumental in embedding the Let's Think approach from Early Years through to Key Stage 3 throughout the East Riding of Yorkshire LA in her role as a Curriculum Development Consultant. She has been project manager of the LTSS project since September 2013 and carries out additional research into the wider implications of the project. Anita also works as Programme Lead for PGCE(Primary) at the University of Lincoln.



## David Bailey



David is currently Regional Network Lead for STEM learning, overseeing CPD provision in Derbyshire, Yorkshire & Humber and the North East of England. Alongside this role, he is an educational consultant working with a range of clients to support many schools as well as being a member of the Let's Think Secondary Science (LTSS) tutor team. He continues to work in the classroom as part of this work, modelling lessons, including those from LTSS. Having being CASE trained in 1997, David has taught CASE for over 15 years in schools and as a subject leader embedded this in a number of schools that he worked in. Follow David on twitter @Class\_Leading

#### Julian Clarke



Julian is the newly appointed Head of Curriculum – Science at AQA; he is a member of the LTSS tutor team, having previously been an independent education consultant and Senior Adviser for Science and STEM with the government funded National Strategies for school improvement. Julian has been interested in the development of thinking skills for many years, being a Kings College trained CASE trainer. His interests include the effective use of practical work to support learning in science and the robust use of data to raise questions and encourage and support the evaluation of actions taken in the classroom. Julian has worked in the STEM / science education

field for 17 years, having previously been a science teacher and head of department.

## Leah Crawford

Leah is an independent consultant and Associate Let's Think in English tutor who facilitates network groups and training in Hampshire. She was previously a secondary Head of English and has 15 years experience as a local authority inspector/adviser. Leah's Masters in Education degree has delved in to the teacher's role in promoting collaborative reasoning and building pupil self-efficacy and she is now exploring the nature of teacher learning on a Let's Think programme.



#### Kate Donegan



Kate has worked in education for over 25 years, both as a classroom teacher in a variety of schools and as a consultant for Reading LA. She worked with the original CASE materials and was delighted to have the opportunity to work on their reincarnation as Let's Think through Secondary Science. Kate is also a passionate advocate of building resilience in learners and developing a growth mindset. Currently she teaches Biology and Psychology at Leighton Park School Reading.

#### Alan Edmiston



Alan began teaching CASE in 1992 and CAME in 1997 and has never stopped. He began to support teachers in 1998 and for the last 19 year this has given him experiences in Let's Think that cover all key stages and all countries of the UK and beyond. He has been project manager of the LTSS project since September 2013 and is currently completing a PhD exploring how children talk in the Let's Think classroom.

## Kate Elander and Sarah Gill

Kate and Sarah both work at Hugh Myddleton Primary School in Islington. Here a sustained programme of CPD has seen all staff (both support and teaching) trained in Let's Think Maths. Training is ongoing to support new members of staff as they join Hugh Myddelton. Over the past two years they have been developing approaches to enable pupils to 'master' maths concepts and embedding reasoning and problem solving into the maths curriculum. Through training staff in Let's Think Maths and incorporating it into their weekly maths teaching they have seen a real improvement in the way pupils tackle new concepts, approach challenges, discuss and share opinions in all subjects.



#### Jemma Míchelson

Jemma has worked as a primary specialist teacher in inner London primary schools for over 10 years. Expanding her teaching experience to different educational settings, she also taught in a thriving, five-form-entry international school in Vietnam. Throughout this time, she has held a variety of different roles including: classroom teacher, core subject leader, lead one-to-one tuition tutor for Islington Local authority, peer-learning coach, NQT mentor, senior teacher and SEN hospital school teacher. Jemma is particularly interested in promoting a classroom culture which empowers children to take risks while building resilience and learning to work collaboratively. She is training to become a Let's Think mathematics tutor, delivering the early years and Years 2-4 Let's Think programme to groups of primary teachers across London.

### Sarah Seleznyov



Sarah is a Let's Think Tutor with particular expertise in early years and primary mathematics. She is particularly interested in mastery approaches to learning and the effective use of classroom talk. Sarah is also a programme leader at the UCL Institute of Education where she supports schools with impact evaluation, and designs and leads professional development programmes that build on the latest educational research. Sarah has worked in various roles including as a deputy head in Tower Hamlets, deputy director of a children's literacy charity, training and development associate for the Fischer Family Trust and a cross-phase school improvement consultant in Islington.



#### Laurie Smith



Laurie taught for many years in London secondary schools before joining teacher education at King's College London. He continued teaching timetabled lessons in an inner London boys' comprehensive school until the current success of Let's Think in English (LTE) made this impractical. From 2009 he has developed LTE jointly with Michael Walsh, based on Cognitive Acceleration (CA) and supervised by Philip Adey, one of CA's originators.

#### Míchael Walsh



Michael worked as an English secondary teacher in London before being seconded to work with a cluster of schools on curriculum design and support teaching and learning. At present as well as co-leading and developing LTE, he is the project director of a collaborative of 18 schools based in Islington. From 2009 he has developed LTE jointly with Laurie Smith, based on Cognitive Acceleration (CA).