



CENTRAL SOUTH CONSORTIUM JOINT EDUCATION SERVICE COMMITTEE

26 MARCH 2015

CENTRAL SOUTH CONSORTIUM RESPONSE TO ESTYN PUBLICATION – ‘GOOD PRACTICE IN MATHEMATICS AT KEY STAGE 3’

This report has been requested by the CSC Joint Committee to address the recommendations for consortia identified in the recent Estyn publication ‘Good practice in mathematics at Key Stage 3’ (2015).

Key findings

‘Numeracy in key stages 2 and 3: a baseline’ (Estyn, 2014) found that in half of the secondary schools inspected in 2010-2012, many pupils have weak numeracy skills or do not apply them well enough across the curriculum. In its’ interim report, Estyn (2014) reported some improvement in numeracy skills with pupils beginning to show a secure grasp of basic mathematical skills. The most recently published report, ‘Good practice in mathematics at key stage 3’, looks to identify and share good aspects of both the teaching and leadership of mathematics.

Pupil outcomes in Wales at key stage three are improving. The proportion of pupils achieving level 5+ at the end of key stage three has increased 13% over 5 years however FSM pupils are significantly less likely to achieve this than those who are not eligible (71% compared to 90%). The proportion of pupils

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achieving level 6+ is comparable to England however there is a need to increase the emphasis on pupils achieving the higher levels (7+) as the gap between England and Wales is 11% at this level. The report notes, in the few lessons observed where pupils do not make enough progress, that *“more able pupils are not challenged enough because there is too much repetition of simple topics or they do not have enough opportunity to explore mathematics through independent learning”*.

The Estyn report notes that *“even in strong mathematics departments pupils do not have enough opportunities to apply or extend their knowledge skills and understanding in a wide range of problem-solving contexts”*. As the requirements of the revised programme of study become statutory in September 2015 at the same time as first teaching of the new GCSE qualifications commences, the proportion of time currently allocated to developing pupils numerical reasoning skills will need to be reconsidered by mathematics leaders due to changes in the assessment objective weightings.

The shortage of suitably qualified and experienced mathematics teachers is noted to be restricting arrangements for delivering the curriculum.

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How are we doing?

		2010	2011	2012	2013	2014
Level 5+	CSC	74.40	76.30	79.30	83.20	86.10
	Wales	75.47	77.86	81.08	83.86	86.50
Level 6+	CSC	43.90	45.20	47.70	52.50	55.64
	Wales	44.98	46.85	49.61	53.12	56.20
Level 7+	CSC	16.40	18.10	19.30	20.40	23.57
	Wales	17.31	18.15	19.95	21.35	24.01

An increasing trend is evident for all performance measures however all are below the Wales figure.

There are two recommendations for Consortia in the Estyn report:

- R7 facilitate networks for sharing best practice between mathematics departments
- R8 provide support, challenge and professional development opportunities for mathematics departments and individual teachers

What are we doing?

Outcome	Action	How does this link with the Estyn recommendations for Consortia?
Improved delivery of numeracy within mathematics lessons and across the curriculum	The revised programmes of study were developed for WG by the CSC SA. This has put us in a strong position in ensuring that our schools are prepared for the changes. We are encouraging mathematics and other department to re-think their approaches. Numerical reasoning and numeracy delivery should not be considered an 'add on'. Rather, it should be considered an integral part of developing numerate learners. We are challenging schools to reconsider a dominance of procedural teaching in favour of independent, conceptual learning in which learners are challenged to make connections between different areas of mathematics and in relevant real-life contexts that are interesting to our learners.	R7 Sharing best practice through: HOD network meetings Mathematics teacher attended teachmeets Literacy and numeracy coordinator network meetings Literacy and numeracy teachmeets

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	<p>All central training has, at its core, ensuring high quality learning and teaching. Currently in development by CSC are a range of CPD modules to be used by mathematics departments to support improving practice.</p> <p>The responsibility for supporting schools to effectively implement the LNF has moved from NSP to CSC. The project plan centres around development of a self sustaining model through facilitation of a specialist hub and a cascade model through three phases.</p> <p>Three schools are receiving IRIS connect from a CSC awarded grant.</p>	<p>R8 – providing support and professional development opportunities</p> <p>R7 – all phases will include a significant amount of S2S collaboration</p> <p>R7 – all schools have agreed to commit to three days of S2S support to share how they are using IRIS</p>
<p>Increased proportions of learners achieving the higher levels at the end of KS3</p>	<p>The CSC numeracy team emphasises the importance of building sustainable approaches in school and as such part of support focuses on the tracking and identification of pupils who are not ‘on track’ in all year groups and at all levels in order for schools to provide suitable interventions, including at classroom teacher level, as capacity allows.</p> <p>Level two figures at the end of key stage are also increasing however the mathematics and numeracy team is increasing the emphasis on achievement of higher grades in order to support schools in preparing for the planned changes to performance measures in summer 2017.</p> <p>A transition enrichment project using the LNF is planned for the summer term with year 6 and 7 pupils across CSC. A further event, looking at the requirements of the new GCSE mathematics specifications, programmes of study with year 9 MAT pupils is currently being developed collaboratively with Cardiff University.</p>	<p>R7 & 8 – the intensive support for amber and red schools will extend its’ practice this year in facilitating leadership triads that meet once half termly to challenge and support each other with a specific focus such as this. This increases capacity for working with non targeted schools.</p> <p>R7&8 – resources will be developed in collaboration with CU and CSC teachers and shared across the region.</p>

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<p>Reducing the gap between groups of pupils: genders and FSM/nFSM</p>	<p>A recently initiated part of research is looking at the performance of different groups of pupils which includes tracking the performance of cohorts of learners at school level in order to identify practice that has closed the gap existing between girls/boys and FSM/nFSM, as well as the performance of groups in different style of assessment.</p> <p>'Count on' and 'Write on' 2016 will be part of the response to outcomes identified in the above research.</p>	<p>R7 & 8 – identification of effective strategies and approaches for dissemination across the region. R8 - Increased challenge and support for mathematics departments to develop effective strategies.</p>
<p>Increasing the capacity for mathematics teaching within the CSC region</p>	<p>CSC is developing a subject knowledge enhancement course for non specialist mathematics teachers which will be facilitated by a CSC school in the autumn term.</p> <p>Recruitment for centrally retained mathematics specialists is planned.</p>	<p>R8 – providing professional development opportunities</p>
<p>Supporting HODs and teachers to ensure that pupils have sufficient opportunities to develop independently their numerical reasoning skills</p>	<p>The Qualified for life project team are collaborating with teachers to develop and trial resources and approaches. Through this, coaches are being identified to support teachers within and across schools in making the necessary transition in their pedagogical practices. An external evaluation of this project has been initiated. On completion, this will be used to inform planning for the remaining four terms of the project.</p> <p>A scheme of learning has been developed collaboratively with fifteen CSC teachers and resources and tasks to support.</p> <p>A site has been established within Hwb + for teachers within the region (and across Wales) to access the bilingual resources created.</p> <p>CSC advisers are collaborating with specialist advisers from the other consortia to develop approaches across Wales.</p>	<p>R7 & 8 – facilitating networks and professional development opportunities through the facilitation of across school working triads.</p>

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