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Report of the GCSE English and Mathematics Project (Phase III)

February – June 2013
End of project report/evaluation



Codi Safonau Ysgolion
Raising School Standards

Report of the GCSE English and Mathematics Project (Phase III)

Audience	Secondary schools in Wales.
Overview	This document is an end of project report/evaluation of the GCSE English and Mathematics Project (Phase III) that ran in schools from September 2013 to March 2014.
Action required	None – for information only.
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Additional copies	This document can be accessed from the Welsh Government's website at www.wales.gov.uk/educationandskills
Related documents	<i>Report of the GCSE English and Mathematics Project</i> (Welsh Government, 2013) www.wales.gov.uk/topics/educationandskills/publications/reports/gcse-project-report/?lang=en <i>Report of the GCSE English and Mathematics Project (Phase II)</i> (Welsh Government, 2013) www.wales.gov.uk/topics/educationandskills/publications/reports/gcse-project-phase2/?lang=en

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Executive summary

The Welsh Government appointed Education London (EL) to deliver Phase III of the GCSE English and Mathematics project, following on from the successful delivery of Phases I and II. Phase I of the project was a series of workshops to subject leaders of English and mathematics around Wales; Phase II then supported three nominated schools in each of the four consortia in Wales to model the outcomes of the Phase I workshops. Following a meeting with consortia colleagues it was concluded that these were issues which could be found at many secondary schools in Wales. It was, therefore, recommended that the project should be further extended into Phase III. Phase III support ran from September 2013 to March 2014.

Each of the four consortia nominated 10 schools to take part in Phase III, each of which was offered 10 days of support for learners and department leaders in each of English and mathematics subjects. Schools also had up to 10 days of whole-school programme management to coordinate the support and work alongside the school's leadership team to help ensure sustainability. The subject support was focused on Year 11 learners, with the initial aim of raising achievement in GCSE examinations in June 2014.

Key issues

Attempts to ensure that all agencies working with the schools coordinated their approaches delayed the start of work in schools, which meant that some had already introduced their own intervention programmes. Others were reluctant to start mathematics support until the results of the November entry were known in January. In English, schools often wanted to focus exclusively on GCSE English Literature after the January exams, until the results of the January entry for GCSE English Language were known in March – which was just before the end of Phase III support. Learners sitting additional exams in June had no support in the key final weeks of the course. A minority of schools felt that additional support in one of the two subjects offered was unnecessary.

Comments from the schools

Schools were overwhelmingly positive about Phase III of the project. Most schools particularly valued the English mock examinations, with personal feedback for learners, and welcomed the advisers' independent views of each school's provision in English and mathematics. The professional dialogue with advisers was also

highly regarded, leading to the revision of schemes of work (SOW) in some cases. Ideas from Phase III will be incorporated into the delivery of these subjects next year. (See examples under 'Impact' on page 9) Most found it challenging to accommodate so many days of intervention in the relatively short time frame and would have valued a longer period both to plan and deliver the support, which they felt should have continued until the final GCSE exams in June.

Recommendations

1. Any future programme of support should start earlier in the academic year and continue until the GCSE exams.
2. Schools should look to develop an audit tool to help them develop an action plan to improve learner outcomes – one possible model is the 'Focus on outcomes checklist' in Appendix 4.
3. When reviewing their Key Stage 3 curricula for English and mathematics, schools should focus on all the skills required for success in GCSE examinations, with particular focus on sentence structure, spelling and punctuation in English, and number work in mathematics.
4. Ensure the full implementation of the National Literacy and Numeracy Framework (LNF), which will support success in both GCSE English and mathematics, and Programme for International Student Assessment (PISA) tests.
5. Early entry strategies should only persist when data demonstrates that this does not impact adversely on learners' ability to achieve their best possible grades.
6. Learners should have the opportunity to sit more than one mock exam, held in an examination hall with the full amount of time and, in English, team-marked and moderated.

Main report

Introduction

The project was funded by the Welsh Government and ran between September 2013 and March 2014. It built on the earlier successful Phase I and Phase II projects, which comprised a series of workshops to subject leaders of English and mathematics, followed by support for 12 schools around Wales, working with Year 11 learners immediately before their GCSE exams.

Project overview

The project was part of the Welsh Government's programme to improve school standards and attainment in GCSE English and GCSE Mathematics. It supported some of the Welsh Government's key priorities for improving educational outcomes for learners in Wales, including:

- improving literacy
- improving numeracy
- reducing the impact of poverty on educational outcomes.

Key aims of the project were to:

- improve attainment in GCSE English Language and GCSE Mathematics for learners in Year 11
- help to develop sustainable practices within schools to ensure continued improvement in attainment in GCSE and PISA tests
- support subject leaders and teachers in the development of their practice
- work alongside a member of the senior leadership team (SLT) to develop the school's ability to focus on outcomes
- ensure EL liaised with the examination board WJEC, and CfBT (responsible for delivering the National Support Programme (NSP)), to ensure full knowledge of developments affecting schools was obtained.

Organisation and methodology

EL worked with 40 schools, identified by each of the four consortia; it was also intended that this would include two Welsh-medium schools in each consortium¹. The approach involved hands-on support from EL's English and mathematics advisers for targeted learners in both subjects (providing a model for departments) and working alongside subject leaders and teachers in the department to develop their practice.

EL's **school programme managers** (SPMs) worked with a member of the school's SLT, who were then designated as the associate SPM, to oversee the support at whole-school level and ensure continuity beyond March 2014 to achieve the necessary impact in the GCSE exams of June 2014 and beyond. There was a particular focus on creating sustainable improvement in the school's ability to focus on and develop learners' outcomes in the longer term.

¹ This requirement was not fully met in all consortia.

The SPM carried out a **standards analysis** (see Appendix 1) which included a check that the school's provision adequately met the needs of learners from deprived backgrounds. Where possible, the school's system leader was involved in the process. From this data, a **project plan** was written to coordinate EL's support with other interventions taking place.

The SPM and associate SPM established **target groups** (TGs) of key learners to receive the support from EL's subject advisers. The TGs comprised 25 learners in each subject whose prior attainment indicated the ability to achieve C+ passes in English, mathematics and at least three other subjects but who were currently vulnerable in English and/or mathematics.

Ten days of support in both English and mathematics were allocated to each school, to be spent partly with targeted learners approaching their GCSE exams, and partly with subject leaders and/or other relevant staff to focus on a range of issues according to schools' individual needs, such as assessment, tracking progress, intervention, literacy and numeracy within the school, teaching on specific content, SOW and developing classroom practice. Another key feature was a focus on additional mock exams, with feedback on an individual-learner level to identify future learning needs. In English, support was exclusively for GCSE English Language, i.e. it could not be used to support preparation for GCSE English Literature. In both English and mathematics, the project sought to ensure that learners in Year 11 achieved their best possible grades in GCSE examinations. Only if Year 11 had already achieved this objective could the support be transferred to learners in Year 10.

Detailed programmes of support for both subjects were developed specifically for this project (Appendices 2 and 3). These were adapted in the light of the differing start times and GCSE entry patterns in individual schools.

Schools had up to 10 days of support from the SPM to:

- oversee the smooth running of the subject support
- work with senior leaders to develop tracking
- set targets and intervention within the school
- achieve sustainability after the end of the project.

In addition, the SPM reviewed whole-school organisation to ensure maximum focus on outcomes. This was accomplished using a 'Focus on outcomes checklist' (see Appendix 4 on page 28), developed by EL from best practice observed in a wide range of schools.

Outcomes

Virtually all the allocated days were delivered on time, despite a delayed start to first visits to schools caused by the process of school identification. Ninety-seven per cent of the 800 support days for English and mathematics were delivered to schools on time. The following table shows the support delivered in each consortium.

Days of support delivered by consortium

Detailed figures for each school were provided to the Welsh Government throughout the project.

Consortium	English	Mathematics	Total
Central South ²	111	107	218
ERW ³ (South West and Mid)	89	88	177
GWE (North)	99	97	196
SEWC (South East)	85 ⁴	102	187
Total	384 (96%)	394 (99%)	778 (97%)

The delivery of support to schools had to accommodate different examination entry patterns within them. The majority of school visits took place between November 2013 and March 2014, though in some schools mathematics support could not begin until January 2014 because schools wanted to wait until the publication of GCSE results in January. This relatively short period of time presented challenges to both advisers and schools; yet despite this, schools

² Adjustments made after the beginning of the programme led to one additional school in Central South (11).

³ Adjustments made after the beginning of the programme led to one school fewer in ERW (9).

⁴ Some schools felt they did not need support with GCSE English Language.

were overwhelmingly appreciative of the support received. The vast majority of schools reported positively about the project; even the few with concerns about particular features of it, such as the fact that the support did not extend until the GCSE exams in June or that learners had to miss other lessons to attend the EL sessions, felt that other aspects had been beneficial. However, schools were critical of the time frame; the late start meant that schools had to accommodate the EL support after different intervention strategies had already been organised; and the project ended in early April, whereas the learners' exams were in June.

The project strove to complement measures already in place to help learners to achieve their full potential. In some schools, presentations about the project were made to parents/carers, to harness their support for the opportunities provided for their children. The project worked most successfully in schools that fully explained the benefits to their learners and ensured that the necessary arrangements were in place for them to attend the sessions with EL advisers, which inevitably meant missing other lessons.

Departments were overwhelmingly welcoming, with many teachers taking the opportunity provided to observe advisers leading sessions, or inviting the advisers into their own lessons so that they could subsequently discuss ways of developing classroom practice to maximise learners' learning. Schools that benefited most from the project ensured that subject leaders had the opportunity to meet with the EL adviser during every visit. This meeting sometimes extended into a department meeting after school, so that other colleagues could also attend. They discussed a planned series of topics, many suggested by the departments themselves or prompted by the recommendations made by the adviser in the record of visit (ROV) (see Appendix 5 on page 39) following a previous visit. In some schools, resources provided by the EL advisers were used across the cohort and the idea of an additional mock exam was taken up, extending the benefit of this to other learners.

Steps to improve consistency in marking in English, such as team marking and early moderation, were often introduced immediately. In a minority of schools, success in GCSE English Literature was seen as of equal value to success in English Language and support for the latter was rejected, on the grounds that learners had already sat an exam in English Language, either at the end of Year 10, or earlier in Year 11, and had therefore had an opportunity to succeed in this subject.

In mathematics, use of item level analysis (ILA) was developed with schools to provide improved feedback on individual learners, teaching groups and cohorts. In some schools this led to revised teaching programmes, with even more focus on individual learners' learning needs.

Pupil voice surveys revealed that targeted learners appreciated the individual attention they received, with many reporting that they found it easier to explain their concerns in what they felt were more supportive, smaller groups. The focus given in the sessions to exam technique was also valued, with many learners observing that their confidence had developed as a result. Just hearing a similar explanation expressed in a slightly different way was also beneficial. Learners said they would willingly attend more sessions if they were offered, though several expressed concern over the fact they had had to miss other lessons to benefit from the EL support.

SPMs worked with senior leaders in schools and, where possible, with their system leaders, on the standards analysis and its associated project plan, which mapped out various strands of support in the school and helped to clarify priorities. The 'Focus on outcomes checklist' (see Appendix 4 on page 28) also prompted useful discussion at senior leadership level about the focused tracking of learners; many schools intend to incorporate ideas from this into their tracking and target-setting systems, increasing their focus on levels of progress achieved by learners. SPMs and associate SPMs also monitored the implementation of recommendations made by subject advisers in their ROVs, to ensure the prompt integration of good ideas into routine practice.

Impact

There was much good practice already in the project schools and EL built on this during Phase III. EL suggested different/additional approaches which have had proven success elsewhere in the UK.

Successful EL interventions included:

- early pupil voice exercises, resulting in adapting the delivery of support to accommodate learners' wishes
- mirroring of support by departments – additional mock and personal feedback/ILA for different groups of learners, e.g. A/A* candidates or those who are disadvantaged
- department meetings held on days advisers were in school, to share good ideas

- revising tracking systems to focus on data about learners' performance in mock exams (i.e. not confusing success in GCSE English Literature/controlled assessments (CAs) with success in GCSE English Language exams)
- implementing additional mocks, with detailed feedback to learners including:
 - individual feedback sessions in English
 - ILA in mathematics
- implementing 'walking talking' mock exams in mathematics involving teachers supporting and teaching learners while they sat the mock examination (please note: this was in addition to unsupported mock examinations)
- focusing on exam technique, including how and where marks are awarded, with clear guidance given on how to maximise marks achieved
- implementing use of techniques and short cuts (where appropriate) to achieve marks
- an emphasis on the importance of planning and revising work in English to ensure relevance and accuracy.

Ideas adopted by schools, in addition to the above, to achieve sustainable improvements included:

- planned Year 9 transition programmes
- subject leaders spending more time monitoring
- changing assessments to provide relevant exam skill data to facilitate earlier, more focused intervention.

Ideas adopted for English included:

- team marking of assessments
- clear entry and exit criteria mapped to all interventions, with detailed tracking of learners' attainment profiles
- success in GCSE English Language always at the centre of the course, with practice of language skills maintained throughout
- attention given from Year 7 to developing skills in sentence structure, punctuation and spelling (SSPS)

- good balance of the course between developing GCSE English Language examination technique, CAs and GCSE English Literature.

Ideas adopted for mathematics included:

- use of ILA to amend Year 11 teaching programme to address learners' needs
- focus on quality of written communication (QWC) throughout the mathematics curriculum
- more varied approaches in lessons to incorporate problem solving, functional mathematics PISA-type questions and investigative work.

Sustainability

SPMs worked with schools on their planning for the period after the project was completed, helping to implement some of the strategies listed below.

Short-term: current Year 11

- A commitment to keeping the TG together and finding the means to support them, e.g. through releasing subject teachers from other teaching commitments, hiring exam teachers or using tutor periods and lunch times.
- Additional mock exams to clarify final revision programmes.
- Easter revision sessions for learners, delivered by subject staff.
- Delaying study leave to maximise learners' learning in school.
- Revision between mathematics Papers I and II.

Medium-term: current Year 10

- Ensuring all learners will sit a meaningful end of year exam which will give a clear picture of current achievement.
- Using the information from this exam to identify a TG in each subject for the start of Year 11.
- Developing strategies to minimise the conflicting demands on Year 11 learners, e.g. changing the school calendar to ensure that CAs and early entry, mock and final exams are spaced out to help learners perform at their best throughout.

- Identification and support of key TGs in English and mathematics throughout the school.

Longer term

- Regular meetings between the relevant member of SLT with **both** the subject leaders of English and mathematics **together** to track learner progress and ensure a whole-school approach.
- Timetable for next year amended in the light of EL advice by giving more time to English and mathematics/timetable restructured to teach English and mathematics in half-year groupings which allows for a better match of teachers to groups (e.g. strongest teachers on 'borderline C/D' groups).

Recommendations

1. Any future programme of support should start earlier in the academic year and continue until the GCSE exams.
2. Schools should look to develop an audit tool to help them develop an action plan to improve learner outcomes – one possible model is the 'Focus on outcomes checklist' in Appendix 4 (see page 28).
3. When reviewing their Key Stage 3 curricula for English and mathematics, schools should focus on all the skills required for success in GCSE examinations, with particular focus on sentence structure, spelling and punctuation in English, and on number work in mathematics.
4. Ensure the full implementation of the LNF, which will support success in both GCSE English and GCSE Mathematics as well as the PISA tests.
5. Early entry strategies should only persist when data demonstrates that this does not impact adversely on learners' ability to achieve their best possible grades.
6. Learners should have the opportunity to sit more than one mock exam, held in an examination hall with the full amount of time and, in English, team-marked and moderated.

Appendix 1: Standards analysis for Welsh schools (2013/14)

School			
Headteacher			
English or Welsh medium			
Local authority (LA)/consortium			
Current band 2013		Previous band (2012)	
Family of schools			
Deprivation rank of the school in the family			
Level 2 rank in the family			
Level 2 including English/Welsh and mathematics rank in the family			
Date of initial EL draft			

Please note: The deprivation rank of the school in the family (1: most deprived; 2: second-most deprived, etc.) then **either** the Level 2 threshold rank in the family (1: lowest Level 2; 2: second-lowest Level 2, etc.) **or** the Level 2 threshold rank in the family (1: highest Level 2; 2: second-highest Level 2, etc.) – it doesn't matter which of these is on the form so long as one of them is to ensure consistency and then similarly **either** the Level 2 threshold including English/Welsh and mathematics rank in the family (1: lowest Level 2+; 2: second-lowest L2+, etc.) **or** the Level 2 threshold including English/Welsh and mathematics rank in the family (1: highest Level 2+; 2: second-highest Level 2+, etc.).

Section 1 – Context

1.	Characteristics of the school (based on current)	
a.	Socio-economic context and free school meals (FSM) %	
b.	Gender balance: Boys %	Girls %
c.	Special educational needs (SEN) including proportion of statements	
d.	Proportion of ethnic minority learners	
e.	Most recent whole-school 2–4 progress figure	
	2012	2013

Section 2.1 – 2012 Key Stage 3 results (teacher assessment data) (for further background on current Year 11)

Key Stage 3	Level 5+	Level 6+	2014 target	
			5+	6+
English				
Mathematics				
Science				
Core subject indicator English/ mathematics/science				

Section 2.2 – 2013 results (teacher assessment data) (for further background on current Year 10)

Key Stage 3	Level 5+	Level 6+	2015 target	
			5+	6+
English				
Mathematics				
Science				
Core subject indicator English/ mathematics/science				

Section 3.1 – 2012 Key Stage 4 results

Key Stage 4	2012			
Number on Year 11 roll				
Level 2 threshold				
Level 2 threshold, including English/Welsh and mathematics				
Level 1 threshold				
Capped average points score (CAPS)				
% A*–C	English/Welsh Language or Literature %	Mathematics %	1 Science Number	2 Science Number
GCSE 2012 subject-level data	From school, LA or Welsh Government data			

Section 3.2 – Provisional 2013 Key Stage 4 results provided by the school

Key Stage 4	2013			
Number on Year 11 roll				
Level 2 threshold				
Level 2 threshold including English/Welsh and mathematics				
Level 1 threshold				
Capped average points score (CAPS)				
% A*–C	English/Welsh Language or Literature %	Mathematics %	1 Science Number	2 Science Number
GCSE 2013 subject-level data	From school, LA or Welsh Government data			
Comments/issues: (Include: comparison of core subjects, especially mathematics and English/Welsh. Look at English Literature and English Language differences. Note poorly performing subjects with possible reasons; best performing subjects with possible reasons; proportion of grade D's in key subjects)				

Section 7 – Other external support in place

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Section 8 – Key contacts (e-mail and telephone no.)

HT –
SLT contact –
Subject leader English –
Subject leader mathematics –
Other –

Appendix 2: English programme 2013/14

GCSE English and Mathematics Key Stage 4 Project Phase III 2013/14

Building on our successful delivery of Phases I and II for the Welsh Government last year we will be assisting the Welsh Government to deliver its strategic priorities, i.e. improving educational outcomes for learners in Wales through:

- i. improving numeracy
- ii. improving literacy
- iii. reducing the impact of deprivation on educational outcomes.

We aim to effect improvements in **school standards and attainment**, specifically:

- PISA ranking
- Key Stage 4 results.

This will be achieved through our contribution to the Improving Schools plan (October 2012) targeted at leaders throughout the education system in Wales. Specifically, through delivery of this project, we will:

- improve the quality of teaching in literacy and numeracy
- support teacher professional development
- strengthen approaches to inclusion.

The project will support the Welsh Government's LNF. This will be in collaboration with CfBT, the Welsh Government's NSP provider for the LNF.

English (10-day programme)

- Each visit to include some time spent with the subject leader to work systematically through key areas such as: tracking progress; CAs; SOW, both Key Stage 3 and Key Stage 4; progress on recommendations from last visit(s); monitoring the implementation of the LNF and advising as necessary.
- We will work with a TG of around 25 learners, identified by the SPM and the school's SLT. In addition we will teach a further 25, whose target may be higher but who are still vulnerable – the more secure group (SG).

A key element of the project is to ensure sufficient rigour in the school system so that a sustainable model is built in the school's structure for when this support programme is completed.

Opening day – September, after the first SPM visit, on a day when Year 11 are having an English lesson

Conduct a review of English in current Year 11, using form provided. Adviser should:

- check tracking database with the subject leader to ensure that learners identified by SPM as the TG have been chosen appropriately, i.e. does baseline data give a C+ target?
- check the current status of CA marks for this group and all the others expected to achieve C+
- identify any problems with underperformance – look, in particular, at FSM learners
- check also the speaking and listening (S&L) marks – are they C+? If assessment of S&L has not yet started, is this planned, with sufficient time to repeat tasks if necessary?
- look at results from previous entries/mock exams (and ask subject leader about last summer's cohort). Identify any key areas of underperformance – Unit 1/Unit 2/S&L/CAs? **Check that exam underperformance is being addressed in lessons/SOW.** Are there any variables according to teachers? Is someone particularly effective at delivering one part of the course? If there is a significant problem with either reading or writing, track back to Key Stage 3. What is this aspect of the course like here? **Make suggestions in the ROV about changes in Key Stage 3 if necessary, as well as Key Stage 4**
- look at assessment – are learners being offered the chance to sit units twice (ideally, in January and June of Year 11) and do learners sit mock exams? Advise accordingly
- discuss with the subject leader any staffing issues – are the best people teaching each of the groups?
- visit Year 11 lessons to get a feel for how learners learn in the lessons. Look at the books – how often do learners practise writing? How often do they do this in timed conditions?
- ask the subject leader what they think are the key challenges/concerns

- look at CAs – does the grading seem accurate? If learners need to repeat CA, discuss with the subject leader how this will be timetabled
- look at practice in Key Stage 3 – how well are learners being tracked, supported/challenged and prepared for assessments in Key Stage 4?
- how is the implementation of the LNF progressing? What more needs to be done?
- explain the full programme of support and put key dates into the diary, so everyone knows when things are happening.

Four days (late October – before the school’s mock exam)

Two days – These need not be consecutive, but should probably be in consecutive weeks – should be used to plan and deliver revision sessions for Unit 1. Focus on reading in week one and writing in week two. Suggest that the learners are divided into groups of 12 and hold four one-hour sessions on each day. One hour to be spent on the regular agenda (see above).

The learners sit a mock exam which the school arranges. School to post the TG scripts to adviser, guaranteed next-day delivery. Either the English department divides the 25 SG scripts between them and marks; or peer assessment is undertaken by teachers in English lessons.

One day – Adviser marks the TG scripts. ROV identifies key areas of weakness and advises about how to deal with these.

One day – One-to-one feedback to TG, 5–10 minutes per learner. It should be possible to see the SG together for one hour to share key lessons learned.

Check that CAs are proceeding well; help to schedule repeat tasks if necessary.

If Year 11 sit exams in January (as advised) then look at these results and check that teachers are changing the focus of lessons, if necessary to provide more practice of key problem areas – at the expense of English Literature if required.

Three days (end of spring term)

As above, but with the focus on Unit 2. This time, TG and then the SG seen in groups of 25, each for about 90 minutes, revising both sections of the paper. Two hours to monitor progress in Key Stage 3 and Key Stage 4/help with CAs as necessary.

Two days (to be spent as close to the exam as possible)

Four one-hour revision sessions, with the focus on whatever causes the learners in that school the most difficulty. One hour with heads of department (HoD) each day to check revision schedule and strategies for delivering English in the future, in addition to the usual agenda.

Appendix 3: Mathematics programme 2013/14

GCSE English and Mathematics Key Stage 4 Project Phase III 2013/14

Building on our successful delivery of Phases I and II for the Welsh Government last year we will be assisting the Welsh Government to deliver its strategic priorities, i.e. improving educational outcomes for learners in Wales through:

- i. improving numeracy
- ii. improving literacy
- iii. reducing the impact of deprivation on educational outcomes.

We aim to effect improvements in **school standards and attainment**, specifically:

- PISA ranking
- Key Stage 4 results.

This will be achieved through our contribution to the Improving Schools plan (October 2012) targeted at leaders throughout the education system in Wales. Specifically, through delivery of this project, we will:

- improve the quality of teaching in literacy and numeracy
- support teacher professional development
- strengthen approaches to inclusion.

The project will support the Welsh Government's LNF. This will be in collaboration with CfBT, the Welsh Government's NSP provider for the LNF.

Mathematics (10-day programme)

Prior to mathematics adviser's visit:

- SPM/school to identify (or validate if already done) a TG of approximately 40 learners. This TG should comprise 'D/E into C' learners
- two of the groups should comprise the TG learners set by current attainment; a third group should comprise an additional 10 vulnerable learners (50 learners to be worked with in total), identified as just above the C/D borderline. Experience has shown that the latter learners are not always secure and sometimes slip under the net. Subsequently the mathematics adviser will be able to offer advice about some or all these learners being included in the final TG

- SPM ensures that the school sends Year 11 tracking data to the assigned mathematics adviser. This should include Key Stage 2 results, Key Stage 3 results, mathematics set, target grades, most recent attainment grade and results of any GCSE units or early linear entry taken. The learners in each of the three identified groups should also be clearly identified.

Each visit usually to include:

- time with HoD and/or other relevant staff to focus on key areas such as tracking progress, assessment, intervention, teaching of specific content and SOW (both Key Stage 3 and Key Stage 4). Adviser will also provide in-class support and will be available to team-teach and model good practice
- intervention sessions with the TG.

Opening day – Shared HoD/adviser departmental review (September, on a day when Year 11 are having a mathematics lesson)

- **Ask HoD for a critical overview of the department.**
 - Review latest GCSE outcomes and discuss with HoD their analysis. Find out if question-level detail has been used.
 - Discuss any actions taken or to be put in place based upon the results, such as whether teaching plans have been adapted in light of the exam analysis.
 - Which learners underperformed? Discuss reasons.
 - Find out when school mock exams take place. Schedule a second mock exam in February/March.
 - Explain the full programme of support.
- **Raise any issues with tracking data.**
 - Are targets challenging enough?
 - Is setting in line with targets?
 - Any more able learners in lower sets due to behaviour problems?
 - Are there teaching group issues?
 - Are staff well matched to teaching groups?
 - Are there learners who need to switch to Linear?
 - Does the data include social groups, e.g. FSM, ethnicity? Any issues? Any cross-referencing with English/Welsh?

- **Validate TG with HoD** (needs to be after the three one-hour sessions).
 - Aim to identify 40 to 50 learners for regular small group sessions in the following nine school visits.
- **Learning walk of department with HoD when Years 11 or 10 are having lessons to assess accuracy of HoD's overview.**
 - Compare observations from learning walk.
 - Identify staff to work with.
- **Discuss internal intervention strategies.**

Agenda: (please add your own suggestions).

 - Early morning classes (for more able learners A/B to A⁵?).
 - Tutor-time support.
 - One-to-one tuition (for disengaged learners particularly?).
Lunchtime/after-school revision.
 - Saturday classes.
 - Residential.
 - Large group motivational sessions.
 - Second mock exam in spring term with accompanying question-level analysis (QLA).
- **Agree model for next visits. Every visit the SPM should:**
 - deliver three to four one-hour⁶ small group sessions to TG⁷. During first revision session, meet learners and explain they will be working with them. Assess learners' confidence and attitude towards mathematics, in particular subject 'likes and dislikes'
 - meet with HoD/other related staff (e.g. line manager, numeracy coordinator) to discuss future input.

⁵ Or equivalent if school timetable makes one-hour session difficult (longer rather than shorter, if possible).

⁶ Or equivalent if school timetable makes one-hour session difficult (longer rather than shorter, if possible).

⁷ These can be flexible to fit in with TG numbers, school timetable, adviser's preference (e.g. two 1.5-hour sessions for 15/20/25 learners each, three one-hour sessions for 10/15 learners at a time, four 50-minute sessions for 10/12 learners at a time, whole TG for the morning with support from mathematics staff). The goal is to do whatever has the biggest impact on the learners' performance.

Plan activities to fit in around intervention sessions during visits. Remember that a key element of the project is to build sufficient rigour in the school system so that a sustainable model is built into the school's structure for when this support programme is completed.

- **Activities, tailored to each school, the SPM should undertake will include the following.**
 - Visiting Year 11 lessons to advise/team-teach/model good practice.
 - Monitoring the implementation of the LNF and advising as necessary. Ensuring good-quality internal intervention is taking place.
 - Moderation of mock exam paper marking.
 - Advising/supporting on QLA, particularly for TG learners. Advise staff how to use the analysis and give learners effective feedback on their mock exams. QLA spreadsheets for past papers are available from EL.
 - Working with staff to produce resources based upon QLA to address learners' knowledge gaps.
 - Staff independently producing their own resources based upon the QLA; adviser visiting lesson to see resources being used/changes to teaching plans.
 - Assisting with adapting teaching plans if necessary in light of QLA to improve planning prior to GCSE exams.
 - Looking at how the department helps learners answer functional and QWC questions.
 - Working with key staff, visiting lessons in Key Stage 3 and Key Stage 4 to advise/team-teach/model good practice.
 - Look at practice in Key Stage 3 to see how well learners are being tracked, challenged and prepared for Key Stage 4.
 - Monitor progress in Key Stage 3 and Key Stage 4.
 - Ensure that examples of good practice with regard to Year 11 exam preparation are embedded and will be continued by school in the immediate run up to the exams and in future years.

- **Agree provisional dates for all visits if possible (support to conclude in March 2014).**
 - Some of these should be in the immediate run-up to the exams, especially if internal intervention looks shaky for TG learners during the exam period.
 - Dates to be confirmed with school by SPM to avoid clashes with English, etc., so include some alternatives to preferred dates.
 - Agree and diarise key dates.
 - Agree content for first revision session.

Post first visit

- **Write ROV including key issues, provisional programme and any further recommendations and send to SPM. Suggestions to be made about any desirable changes in both Key Stage 3 and Key Stage 4.**

2–10 days

- **Deliver agreed programme.**
 - Record attendance and learner performance at sessions and feed back to HoD.
- **Monitor in particular Year 11 progress.**
- **Keep SPM informed via ROV for each visit.**

Possible model for pattern of small group sessions but can be adapted to suit school

Autumn term first half	Day 1: Initial visit and mathematics review Day 2: Meet TG and first intervention session
Autumn term second half	Day 3: Targeted intervention and mock exam preparation Day 4: Targeted intervention and mock exam preparation First mock exam Day 5: Moderation of mock exam marking and analysis of first mock with identified staff Day 6: Feedback to learners on mock exams and targeted intervention

Spring term first half	Day 7: Targeted intervention Day 8: Targeted intervention
Spring term second half	Second mock exam Day 9: Feed back on second mock exam and targeted intervention Day 10: Targeted intervention and final top tips for exam success

Please note

The model above relates to schools doing the Linear GCSE course. Only a small number of HoDs attending the workshops across Wales indicated they were doing a unitised course. However, if a school is doing a unitised course, the adviser will need to adapt the programme within the spirit of the guidelines above after discussion with AF and the SPM.

Appendix 4: Focus on outcomes

Background

From September 2013 to March 2014 the Welsh Government funded support for 40 schools in Wales (10 from each consortium) with the aim of improving their GCSE results in English and mathematics (the GCSE English and Mathematics project Phase III). EL was engaged to deliver the support, which comprised hands-on support for targeted Year 11 learners and advice at department and whole-school level, with a particular focus on disseminating good practice and sustainable improvement.

Introduction

As part of the project, EL was expected to carry out an evaluation of the schools' effectiveness in **focusing on outcomes** and to offer each school advice about further improvements.

To facilitate this, EL used part of its existing school management audit to design a '**Focus on outcomes checklist**'. This was used by EL's SPMs when working alongside schools' senior leaders to discuss their focus on outcomes and steps that might be taken to improve their GCSE results.

Following on from the end of project event, as part of its delivery of the Phase III project EL has made the checklist available to all levels in the education system in Wales. While headteachers may use the checklist as an aide-memoire to improving practice, it is best used as an agenda for discussion at a number of levels to ensure the depth of self-evaluation and requisite action planning required to improve GCSE outcomes. This could include discussions between schools and consortium/LA advisers or within schools' SLTs.

Expectations of individual learners

The best outcomes can only be achieved with high expectations. An acceptance of Key Stage 2 results for measurement purposes is essential, but this does not preclude the need for more detailed analysis of learner performance nor working with feeder primary schools to gain a better understanding of learner capabilities. While Key Stage 3 is an important benchmark, schools need to focus on an input–output model from Year 7 to GCSE. Challenging targets are necessary and **levels of progress should be the main basis for setting them** (see page 37).

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
1.	Expectations of individual learners	Y/N/P	
1.1	Key Stage 2 levels accepted despite understandable reservations about reliability.		
1.2	Year 7: Identify those whose Key Stage 2 English/Welsh and mathematics attainment should make them: a) definite Level 2 threshold including English/Welsh and mathematics – Level 5's b) strong candidates for this – Level 4+ in both c) strong in one subject, a risk in other – e.g. Level 4 in English, Level 3 in mathematics.		
1.3	Learners entering with low literacy and numeracy skills are identified and their needs addressed.		
1.4	Key Stage 2 data used to set Key Stage 4 target based on four levels of progress (4LP). See page 38.		
1.5	Annual targets derived from 1.4 creating a flight-path approach from Year 7 to Year 11.		
1.6	Targets never lowered, but are raised if learner is on 'higher' flight path.		

Learners and families

Most schools make an effort to communicate with parents/carers, but finding ways of doing this effectively is a challenge that is sometimes eschewed. Ensuring parents and carers understand the following points is worth any extra effort required and sometimes requires a degree of ingenuity, e.g. offering support to parents/carers on how to help their children.

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
2.	Keep learners and their families informed	Y/N/P	
2.1	Targets explained; targets and tracking grades in subject books and in planners/diaries.		
2.2	Learners and parents/carers taught that targets are challenges, not forecasts/predictions, and can be missed or exceeded.		
2.3	Learners and parents/carers have a map of assessment points and, in Key Stage 4, intervention sessions, exam dates, exam paper structures and weighting of marks.		

Assessment and tracking

When asked, all schools say they have good assessment and tracking systems and many do. This section focuses on the quality assurance process required to ensure school systems are robust and fit for purpose.

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
3.	Assessment and tracking	Y/N/P	
3.1	Assessment tasks quality assured by HoD (and SLT) and marking is moderated within the department.		
3.2	SLT has ensured HoD has quality assured each teacher's ability accurately to grade/level work and submit sound tracking grades/levels (below).		
3.3	Training in place for any teacher who isn't accurate.		
3.4	SLT check HoD has detailed tracker, logging attainment against all elements of course (from Year 10 at latest), ensuring, for example, that English includes CAs, S&L, etc.		
3.5	SLT check HoD has checked each teacher has sufficiently detailed logging of achievement for each class.		
3.6	Teachers do regular entry on current working level/grade – not 'prediction' (typically half-termly from at least Year 10).		
3.7	HoD and SLT review termly identification of Years 7–10 learners: a) off the 4LP 'flight path' for one/more of English/Welsh, mathematics and science b) as above, for 3LP flight path, with patterns (e.g. specific sets/classes). Action points produced.		

Year 10 into Year 11 (see page 37)

All educators want young people to master their subjects so well they can sail through GCSEs with a little revision. Experience shows that a significant number of Key Stage 4 learners have not achieved this position by the end of Year 10, particularly in areas of social deprivation. This section outlines some key activities to ensure the whole of Year 11 is spent productively, maximising outcomes for all learners. The process starts in the summer term of Year 10 – the beginning of Year 11 is too late!

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
4.	Year 10 into Year 11	Y/N/P	
4.1	<p>End of Year 10 assessments quality assured so they: cover the full range of topics/skills taught; use GCSE rubric, command language and markschemes; replicate mark distribution of GCSE; ensure time allowed and venues which replicate GCSE exam are used (typically, set past paper, e.g. GCSE English Language: at least one of Unit 1/Unit 2); undertake a full past paper in mathematics.</p> <p>(Please note: If you don't set a 'real' Unit exam you don't have reliable data. Success in CAs/S&L doesn't necessarily mean success in exams.)</p>		
4.2	Above assessments: marked by someone other than class teacher, or sample pair-marked; or teachers paired (to address degrees of experience), then team-marked so at least two mark entire section of paper and moderate between them. ILA carried out at individual learner, teaching group and cohort level.		
4.3	<p>End of Year 10: identify from end of year exam/assessment (below) TGs – learners whose current attainment means:</p> <ul style="list-style-type: none"> • 4LP and 3LP at risk in one/more of English/Welsh, mathematics, science • they are secure in English and mathematics but not in three other subjects • D+ in English but not mathematics; D+ mathematics but not English/Welsh • they are at D/E in both English/Welsh and mathematics. 		

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
4.4	Year 11 from autumn half term: half termly update on TG names in each category (every three weeks from first mock exam), plus identify subject-specific barriers (units/skills, not 'attitudes') and any welfare/attendance barriers.		
4.5	Year 11: frequent (every three weeks) meeting of English/Welsh and mathematics HoDs and SLT lead (plus head of year (HoY)/head of house (HoH)) looking at TG names and getting reports on actions taken and impact of these actions.		
4.6	Year 11 TGs: HoDs responsible for one-to-one regular checks on named learners, e.g. during registration time.		
4.7	Year 11 mocks – at least two, so you can track underachieving individuals and whether interventions/teaching programmes have improved specific units/skills across the underachievers. A third mock may be necessary for TG.		

Intervention

Intervention strategies are necessary in all years, e.g. learners identified as needing literacy and numeracy support in Years 7 and 8. The following section focuses on Key Stage 4 intervention, particularly Year 11 in the light of the Year 10 into Year 11 process outlined previously.

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
5.	Key Stage 4 intervention	Y/N/P	
5.1	Key weak topics revisited briefly in lessons before new topics begin.		
5.2	In English, moderate each CA when completed to ensure early awareness of underperformance and the opportunity to repeat (see 5.3).		
5.3	Years 10 and 11: where any tracking/ILA shows underachievement, review and, if required, revise proposed teaching programmes to address weaknesses. This should include scheduled opportunities to produce new CAs/S&L activities for GCSE English Language.		
5.4	Group together learners with the same weaknesses to maximise teacher time in intervention sessions.		
5.5	Year 11 (sometimes Year 10) interventions outside normal subject time, drawn from: withdrawal from non-exam subject to be taught specific unit/skill/content; pre- and post-school additional teaching, and/or holiday working day (please note: based on weaknesses identified in ILA).		
5.6	Year 11: HoD who is monitoring work quality for TG learners liaises with subject teacher to ensure action taken where work incomplete or below required standard.		
5.7	Year 11: HoD/HoY/SLT has subset of TG learners to work with where their issue is attendance, welfare, or general motivation.		

Leadership and management

Clearly this is a large and extremely important area to evaluate. The following suggestions have been selected because they are policies/actions that schools have introduced to raise GCSE results successfully.

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
6.	Leadership and management	Y/N/P	
6.1	School/department targets derived from percentage of learners targeted to achieve 4LP (good progress) but NOT based on a simple aggregation of individual targets; rather, on the professional estimate of percentage of learners who will meet their individual targets (see page 38).		
6.2	Systematic SLT analysis by early September of actual GCSE results (attainment and progress), gaps (e.g. more able, PP) and any wide variance of last Year 11 assessment versus actual results.		
6.3	Systematic HoD analysis by September (to common format), including progress by teaching group, and clear ILA, plus significant variations of actual grades versus Year 11 last assessment prior to GCSEs.		
6.4	Examining TGs, tracking, and regular review of categories of learners shifts discussion away from abstract percentages into names of underachievers, reasons, interventions and impact; drives targets.		
6.5	HoDs and senior leaders track progress as well as attainment, by teaching and other groups (e.g. FSM, etc.).		
6.6	HoDs and SLT trained in lesson observation to Estyn standard.		
6.7	Learning walks, work scrutiny and pupil voice regularly used by SLT to ensure classroom practice is strong.		

	Focus on outcomes checklist (items drawn from schools with strong sustainable practice)	Yes/No/ Partially	Notes/Action point ref./Support needed
6.8	HoDs and SLT regularly do work scrutiny of Key Stage 4 English/Welsh and mathematics.		
6.9	HoDs (especially English/Welsh and mathematics) held to account for accurate tracking data and interventions, where they're key drivers.		
6.10	Sufficient time on TT for English and mathematics, especially Key Stage 4, and all teaching by specialists.		
6.11	English and mathematics timetabled as priorities (e.g. not Friday afternoon).		
6.12	Teaching groups and teacher allocation are subject to in-year change; if tracking/ILA data (below) indicates need to adjust, with best match of teachers to groups.		
6.13	English and mathematics HoDs not form tutors, freeing them to drive hands-on subject monitoring/intervention.		
6.14	Designated SLT oversight of literacy and numeracy, and teaching quality.		
6.15	Early entry decisions do not impact adversely on learners' ability to achieve best possible grades.		

EL presentation

The following four slides are from an EL presentation used by its SPMs to emphasise aspects of the focus on outcomes. They relate to the key point of analysing levels of progress in addition to attainment outcomes.

Analysing Attainment: A Traditional Approach

A real department's Year 10 mock results (English Language)

A* = 0.6%, B = 26.6%, C = 36.6%, D = 23.3%, E = 6.6%, F = 5.3%, G = 0.6%

What can we discern from this?

- Whether A/C is above/below national/local norms
- Comparing it to forecasts by the MoD
- If we have FFT data to hand, where it is in relation to this
- We could also break it down by teaching group, gender, FSM etc. and make statements about attainment of these groups
- We can note the high % of D grades, & the limited % of top grades, and hypothesise about reasons

But analysis of PROGRESS is a more powerful tool in effecting change

Why analyse progress?

A tool to trigger **action** (NB: "KS2 tests unreliable" is a red herring)

- KS2-KS3:** Identifies learners who are regressing, static or have made insufficient progress, with **3+** terms to do something about it
- KS2-Y10:** Who hasn't progressed well to date, with **2+** terms to do something about it.
- KS3-Y10:** Who's progressed, static or regressed over last 3 terms; **analysis by teaching group tells you if some classes more at risk than others.**
- KS2-GCSE:** A time for lessons learnt from real results but retrospective.

Their KS2-Y10 pivot table showing progress

(for the same results)

KS2	No. result	U	G	F	E	D	C	B	A	A*	No.	% ExpY	% > Exp
-		1				2					16	100%	34%
B, H		2	3	8	7						8	80%	20%
2			1		2	2					10	34%	34%
3			2	3	1	19	8	8			70	82.9%	27%
4					1	7	28	19			18	88.7%	8.0%

ELs did well, but who are the 8 = expected progress, in which sets? What's the story?

Near misses on progress & attainment. Who are these learners? Which sets? What happened?

Good progress weaker for the more able

Who are these learners? In which sets? Had we identified this risk? What did we do about it?

Drilling Down: who are the underachievers?

[To know when the underachievement began, need to do additional KS2-3 & KS3-4 charts]

KS2	No. result	U	G	F	E	D	C	B	A	A*	No.	% ExpY	% > Exp
-			1			2					16	100%	34%
B, H			2	3	8	7					8	80%	20%
2				1		1	2				4	90%	80%
3				2	2	7	19	8	8		28	34%	34%
4					1	1	27	19			48	82.9%	27%
5						1	1	11	1		14	86.4%	8.6%

T. Oshan
A. Weller

E. Donor
S. White
L. Lopez

B. Johnson
S. J. Salah

R. Ballard

Shaif Ali

Rui Lopes
S. Denton
M. Ali
D. Davison
A. Kirmani
E. Gilgit
T. Parsons
H. Sabour
J. Garcia
P. Smith
J. Greenaway

Individual learner targets

Schools should set 4LP as a stretch target; should be individual learners' targets, on which 'flight-path' tracking through Key Stage 3 and Key Stage 4 should be based.

Aggregated school, subject department and teaching group targets

Aggregated targets should be based on the proportion of learners making 3LP – a minimum for schools to expect – and better than expected progress (4LP or more); they should **not** be a simple aggregation of individual stretch targets.

In other words, not all learners would be expected to attain their stretch targets and a reasonable expectation of success at an aggregated level can be set for monitoring purposes.

Appendix 5: Record of visit

School		LA/Consortium	
Adviser		Visiting	
Role		Date of Visit	

Purpose

Activities

Outcomes, actions and next steps agreed

Recommendations

Date and focus of next visit