



Centre for the Use of  
Research and  
Evidence in  
Education



# Strategic Consultation: Mathematics and English

A report for the Education and Training Foundation by the Centre for the Use of Research and Evidence in Education and the East Midlands Centre for Excellence in Teacher Training

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## Executive summary

### Context

Raising attainment in English and maths is critical to a prosperous future for individuals in the economy. The policy response to literacy and numeracy levels in young adults is placing an important focus on the post-compulsory sector in delivering English and maths effectively at Level 2. The main aim of this project was to examine the research evidence on the teaching of English and maths, and consult stakeholders such as practitioners and leaders about its practice, with a particular emphasis on the post-16 sector. The key areas to be explored were:

- current challenges and strengths in the approach to and delivery of English and maths
- the interventions likely to help practitioners overcome challenges
- Evidence to provide a basis on which the Education and Training Foundation can secure, test and disseminate effective innovations at scale.

The outcomes of the research would then provide accurate intelligence on which the Education and Training Foundation can base plans for future work within the sector as it meets the challenge of raising attainment in English and maths on a significant scale.

### A note on report structure

This document reports the finding of the research in successive layers of detail. This first section, **Executive Summary**, briefly outlines the purpose and method of the work but concentrates on summarising very succinctly the keys findings of the research. The next section, headed **Challenges and Strengths in English and maths delivery at Level 2**, spells those findings out more fully by stepping through the 15 specific questions the research set out to address. The final section, headed **Results**, outlines the findings organised by the form of the evidence e.g. practitioner survey, focus group. Finally, the full evidence set, including the all the responses to surveys and the rapid literature reviews, are contained in a separate technical document. Little new information is introduced in the later sections; these simply outline the data in a different structure and in greater detail

### Approach

CUREE in collaboration with emCETT undertook the research in two stages. Stage one drew upon key policy maker and stakeholder perspectives, input from academic and other experts and a rapid review of the published evidence about the teaching of English and maths. This led to the development of a specific set of research questions to be explored more extensively during the second phase.

In stage two, the study used several strands of enquiry in order to answer the fifteen specific research questions developed in response to the initial sector consultation. The methodology consisted of a strategic leadership survey, a practitioner/manager survey and practitioner and student focus groups.

### Findings

The findings related to the research questions are summarised thematically below.

## **Practitioner confidence in delivering Level 2 English and maths**

Whilst practitioners were optimistic about their confidence in a number of areas of teaching and learning, managers had a less sanguine view and strategic leaders showed much less confidence. Teachers and assessors in vocational settings and functional skills teachers reported lower confidence, and the lack of confidence of vocational tutors in their own English and maths skills influences their ability to embed English and maths within vocational subjects.

## **Specialist knowledge and expertise**

Under half of maths or English teachers have a maths or English qualification above Level 3.

Higher levels of specialist qualifications were seen as the way to improve students' learning and there was a perceived need for vocational practitioners to have the knowledge, qualifications and training to deliver learning at Level two.

In terms of subject specialists building on each others' expertise, peer and developmental observation was seen as key, as well as collaboration through networks and forum meetings. Such activities need to be structured and located within day to day activities if they are to be successful.

## **Teacher motivation and identity**

The aspects of both vocational and specialist practitioners' professional identity which impact on their effectiveness could be enhanced by changes in their subject knowledge, job role or through in-depth CPD which focuses on professional growth. These could be, for example, teachers of maths thinking themselves mathematicians and the equivalent for English teachers. There are issues for all staff in thinking of themselves as professional *learners*.

This presents an opportunity for the sector if CPD can be developed to focus on professional identity as well as specific knowledge and skills.

## **Professional learning and support for teachers, tutors and assessors**

Specialist English and maths programmes were considered the most useful. The GCSE Maths Enhancement Programme was seen to have considerable impact and there is a desire for a parallel English Enhancement programme.

Practical and situated learning opportunities are seen by practitioners as being more useful than those which are de-contextualised. Observation of practice with feedback was highly valued and there was an emphasis on collaboration through mechanisms such as cross curricula planning and the shared development of resources.

Approaches which focus on the aspirations of specific sub-groups of students, and the use of activities that help teachers understand the underpinning rationale for Level two English and maths teaching strategies are key.

Those teaching in a vocational setting claimed less access to CPD than those in a non-vocational role, yet they have identified lower levels of confidence in delivery of English and maths.

## **Existing mechanisms and approaches to developing workforce capacity and capability**

Most participants saw building capacity and capability as a strategic as well as an operational issue, In contrast, the concerns of teachers were largely at classroom level. Evidence suggests a greater

need for coherence between leadership at different levels, and the role of senior curriculum managers is seen as key.

### **The scale of the challenge**

There is a large scale volume gap to be bridged through a combination of recruiting specialist staff, deploying existing staff more effectively and ‘up-skilling’ the workforce. There is a suggested need for more readily available specialist ITT provision as well as continuing CPD for existing functional skills tutors to equip them to teach GCSE.

### **Further support and debate**

- An English Enhancement Programme is likely to be useful.
- It may be necessary specifically to address the needs of vocational staff in embedding and supporting English and maths in their programmes.
- Evidence suggests a need to resolve the disparities between strategic and operational aspects of English and maths support and the compartmentalisation of functional skills staff and English and maths specialists.
- An exploration of the perception gap between leaders and their staff concerning confidence levels in Level 2 teaching and learning would provide further useful insight
- There appears to be a deficit in CPD related to the underpinning teaching and learning rationale/concepts. This might refer to understanding the specific pedagogic approaches which underlie decisions about teaching methods and approaches in English and maths. There may also be weaknesses in meeting the needs of *all* students.

## Challenges and strengths in English and maths delivery at Level 2

### Purpose

Levels of learner achievement in English and maths have initiated a number of recent policy changes in England, resulting in the post-16 sector becoming a priority area for the provision of GCSE maths and English, or qualifications which provide a bridge towards GCSE. This research was commissioned to explore how English and maths is currently being delivered, and to illuminate the challenges, strengths and support needs which might impact on student attainment. The study sought to gather evidence about the leadership and infrastructures which facilitate workforce development and capacity building for English and maths delivery. The research was designed to explore practitioner development needs, identities and knowledge. More specifically, the study aimed to gather data which would highlight the new knowledge and understanding that teachers, tutors and assessors require in order to meet the new challenges within the sector. In particular, the research sought to:

- Identify current challenges and strengths (and the teaching and learning activities and/or approaches appropriate to them) ;
- Establish the interventions, including CPDL, likely to help practitioners overcome challenges;
- Collect evidence to indicate how the Foundation can secure, test and disseminate effective innovations at scale.

### Approach

The research was carried out in two stages.

Stage one involved an initial consultation with key policy makers and stakeholders. This provided information about their perspectives on the important areas. Input was also sought from academic and other experts and a rapid analysis of the published evidence about the teaching of English and maths. This led to the development of a specific set of research questions to be explored more extensively during the second stage.

Findings from the two surveys of literature and the initial consultation in phase one then shaped the development of the research framework in phase two. These were addressed through various strands of enquiry, as below:

- On-line surveys for practitioners and leaders involved in the post-16 delivery of English and maths;
- These included free text questions to both practitioners and leaders;
- The leader survey was designed to set practitioner perceptions in their organisational context and combine practitioner and free text responses that contextualise survey answers;
- Focus groups aimed to develop and illustrate results from the surveys;
- Focus groups comprised a group of tasks designed to reveal and capture the views and experiences of staff through the activity – not via a direct question. One such task was the construction of a ‘concept map’ which explored participants’ perceptions about the organisation and structure of English and maths delivery within their organisations.

The practitioner sample was aimed at those who teach or support learners with English and maths at any level/ context plus practitioner managers who lead one or more teams, such as quality or curriculum managers.

- 243 questionnaires were issued to practitioners of which 169 were fully completed (70%)
- Nine focus groups took place with 80 practitioner delegates
- The leadership sample was aimed at those with a more strategic role, faculty head, for instance, or above.
- 87 questionnaires were issued to leaders of which 56 were fully completed (64%)
- Around ten participants with strategic responsibilities (i.e. director, assistant principal, quality manager, faculty head) joined one of the regional or focus group events.

The entire project from initiation to report was completed in a little less than 11 weeks with the greater part of that time used in collecting evidence (as outlined above). Analysis, synthesis, interpretation and reporting of the findings had to be completed in two weeks and this short timescale has limited the scope and depth of evidence interrogation. We could not, for instance, explore the potential significances of partial populations (e.g. looking at responses of FE based respondents versus others) or exploring the effects of the high number of functional skills respondents.

## Findings and conclusions in relation to each of the research questions

A series of research questions were developed and explored within five headline areas arising from the consultation process in part one. These areas are:

- Specific questions relating to student mathematics and English learning needs that shape very directly teacher CPD
- Specific questions relating to teacher identities and knowledge needed to shape workforce development
- Specific questions relating to additional processes and inputs that international evidence suggests will impact positively on the new knowledge and understanding that teachers, tutors and assessors need to develop to meet new challenges including
- Specific questions about the leadership and infrastructure that enables effective workforce development and capacity building for mathematics and English
- Specific questions for system leadership

The following section of the report presents each of the fifteen research questions which were the focus of the study, the findings for each and a commentary presenting the conclusions for each question respectively.

### 1 Which aspects of L2 mathematics and English do practitioners in vocational programmes and functional skills programmes feel confident about?

Practitioners feel somewhat or very confident about teaching most aspects of the subject except for ‘using digital technology as a learning resource’. This remained true for just those practitioners teaching vocational subjects and/or functional skills. Maths teachers in vocational and FS contexts felt less confident than others about developing learners’ maths reasoning, exposing and discussing common misconceptions and developing collaborative learning in maths. English teachers (in vocational and functional skills contexts) feel more confident than others in combining systematic writing instruction with extended experience, but less than others in helping learners respond to literature. Respondents to the surveys generally showed a good deal of confidence in their ability to

tackle a number of teaching and learning issues which research evidence has identified as significant in English and maths. Only 'using technology for learning' fell below this high level of confidence.

Both teachers and assessors in vocational settings and functional skills teachers (who were the single biggest group completing the survey) reported lower confidence in certain areas depending on the subject. For maths teachers/trainers, the 'problem' areas were developing maths reasoning skills and dealing with common misconceptions developing collaborative learning in maths and for English teachers/trainers, the challenge area was dealing with literature.

Managers were less optimistic about staff confidence in these areas. However, they shared the view that technology was a challenge.

The Foundation may wish to establish how solidly confidence is based on a good understanding of the different types and levels of demand at Level 2, including GCSE maths/English.

## **2 To what extent do practitioners in the sector feel confident about, find challenging or unfamiliar, specified underpinning principles?**

Most practitioners felt somewhat or very confident in all the identified areas, with around 85% typically feeling somewhat or very confident (*Study Documentation Annex* refers). Only a very small number felt not at all confident in any area. The areas of greater diffidence were:

- using digital technology (34% not confident)
- Developing learners' mindset/identity (13%)
- Knowing about learners' dispositions and starting points (12%)

Their managers identified the same areas as issues where confidence needs to develop but had a generally slightly less optimistic view of staff confidence, with around 55% saying that many or most staff were confident in most of the identified teaching and learning areas. Practitioners responded optimistically to questions about confidence in a number of areas of teaching and learning and to a lesser extent their line managers agreed. However, strategic leaders showed much less confidence than either practitioners or their managers.

We have no independent means of verifying or challenging the views of practitioners about their skills in the curriculum areas under scrutiny. There is some evidence to suggest that their confidence might be misplaced. Under half of maths or English teachers are qualified above Level 3 in the subject they teach (in maths, over 37% are not qualified about Level 2). Their line managers were much less sanguine about practitioners' assessment of their own capabilities in these areas and a substantial fraction (nearly 25%) of survey respondents worked as functional skills teachers.

There is, we believe, a significant risk that many staff were asserting confidence in the absence of good understanding of the demands of the curriculum.

The Foundation is likely to find it helpful to acknowledge teachers' confidence as a sign of their professionalism and a 'can do' attitude at the same time as exploring how far greater information regarding Level 2 English and maths changes this.

## **3 What are the most effective ways of securing these elements in practice?**

Our respondents predominantly identified changing characteristics of the students as the big issue/problem rather than their command of the subject or of teaching and learning strategies. So,



direct answers to this question were not provided from the survey or focus group data other than in relation to a strong emphasis on developing in-depth knowledge of students' starting points and having time to overcome previous negativity.

The wider evidence base suggests that these effective strategies depend upon a combination of (a) the depth in subject knowledge that makes it easy for teachers to avoid over dependence of less effective methods such as worksheets, and (b) letting go of control of the learning process in order to foster independence in learning, and maximise opportunities for using insights into the learning of individual students to shape their next steps.

Additional answers might be capable of being inferred from cross-analysing the data on organisation, leadership, confidence, professional development and other forms of support.

#### **4 What specialist knowledge do practitioners have and need to contribute to subject learning in vocational contexts?**

This question was addressed directly for specific groups in free text survey questions and in a focus group activity (though we could not always tell if they were vocational tutors, English and maths specialists or functional skills teachers). Specifically participants highlighted areas where the Foundation might wish to focus support. Several emerging priority needs were identified which include knowledge, qualifications and training in English and maths to deliver Level 2 for vocational tutors. Higher levels of specialist English and maths qualification (Level 5) were seen as the way to deliver a better service to learners by some. The ability of vocational tutors to embed English and maths in vocational subjects and their lack of confidence in their own English and maths skills was seen as important to effective subject learning. For English, the knowledge and competence to effectively deliver writing skills was seen as important, and for maths, knowing how to develop collaborative learning and discussion was identified. For both subjects, understanding how deeper English and maths skills will enhance vocational practice was perceived as a key issue. Helping learners become confident communicators in digital contexts was also identified, and technology also featured in terms of practitioners' ability to use technology to support collaboration and share resources.

Focus group participants exploring the needs of specific groups of staff identified vocational tutors in particular as having a need for specialist knowledge. This point is reinforced in free text responses to other questions. Responses here and elsewhere also flag a related need to develop a sense of ownership of mathematics and English as part of a vocational tutor's core task.

#### **5 How can and do vocational teachers, tutors and assessors and subject specialists build on each others' expertise whilst involved in day to day delivery?**

Peer/developmental observation emerged as key including collaboration and participating in networks, "ideas exchanges", forum meetings and professional 'friends', through team teaching and mentoring. The processes and practices linked to effective peer working in day to day delivery for English and maths included standardisation and moderation meetings and cross curricula planning. This planning would include sharing paperwork and resources between English and maths specialists and vocational staff, such as jointly planned schemes of work with integrated English and maths skills and functional skills opportunities. The use of 'champions' was another way in which expertise is shared, and there was a focus on whole organisation approaches including collaboration and good communication through regular meetings and sharing resources. Technology facilitating the sharing

of expertise was also used in day to day delivery, for example through a VLE acting as a tool for sharing resources.

Effective collaboration is key to improving the delivery of maths and English. The larger evidence base and respondents also recognise that this needs to be both structured and located within day to day operational practices if it is to be sustainable and to feed into benefits for learners.

Work commissioned by the Foundation needs to specify that approaches to supporting English and maths involve generating and supporting collaboration between combinations of:

- Maths and English specialists and vocational tutors - to identify and maximise Maths and English opportunities that exists within vocational learning contexts and increase confidence regarding maths and English;
- Maths and English specialists, vocational tutors and functional skills teachers should ensure that functional skills are related to vocational contexts, lay a foundation for progression to Level 2 and increase the depth of subject knowledge.

It also needs to specify working processes and tools that bring structure and focus to such work, such as cross-moderation and cross curricular schemes of work.

## **6 What motivates and helps teachers develop their mathematical/ English identities, knowledge and understanding?**

Teachers and leaders were motivated to develop when they were focused on enhancing teaching, for example when needing to improve A Levels and being challenged to combine existing skills with new skills. They said they were motivated when they focussed on professional growth, for example through job satisfaction. There are also external leadership /SLT drivers which affect teachers' motivation; an example being given was the perception that a 'satisfactory' grade is no longer acceptable. This also relates to government policy and agendas and commitment to the organisation. Responses illustrated that teachers want to improve their core knowledge, for example they appeared fearful of knowledge gaps.

Teachers and leaders noticed their beliefs changed when confidence increased, for example through readiness to move into management. When their awareness of their students increased, they said they gained a 'better grip' on their lack of confidence. Confidence and motivation also increased as a result of role recognition, for example becoming seen as a "proper maths teacher". Changes in the organisation also led to development and examples included a respondent "creating [my] own job" as a result of English and maths being re-organised as a single area.

Changes in confidence can be seen to occur when practitioners' awareness of their students increased, and in particular knowledge of their students' starting points. Roles are also key, such as the chance to contribute in a broader, implicit role and being recognised for this. This often came from organisational changes in English and maths delivery which prompted a sudden expansion of role opportunity. This was seen to have a positive effect on esteem, with practitioners then wanting to deepen core knowledge.

This suggests that introducing Level 2 English and maths represents a significant opportunity, provided that attention is paid to constructing the development as an opportunity for professional

growth, and leaders engage with what it means for colleagues' professional identity as well as their knowledge and skills.

## **7 What specific support exists or is needed for different groups of teachers, tutors and assessors?**

Practitioners accessed subject specialist English and maths programmes most frequently, and also considered these most useful. Focus group feedback also highlighted subject specialist programmes as particularly valuable. In contrast, leaders believed their organisation has more access to in-house CPD than subject specialist programmes, although they believed that the latter had most impact. In-house CPD was still widely accessed and seen as useful. GCSE maths Enhancement, Thinking Through Maths materials, LSIS CPD modules and personal English and maths up-skilling was also accessed by significant numbers. Those teaching English and maths in a vocational setting claimed less access to all CPD than those in a non-vocational setting, especially to subject specialist programmes and in-house CPD. Practitioners believed that teachers in non-vocational contexts had more access to all PCP programmes than those in a vocational context. In contrast, leaders believed it was those in a vocational context that had most access. Those teaching English/maths in a vocational context perceive that they experience less access to CPD than those in a non-vocational context, although leaders do not recognise this. There is clearly room for further debate and exploration of this issue.

Subject specialist programmes and in-house CPD are particularly popular and useful to practitioners, and are seen by leaders to have greatest impact. Leaders also see the GCSE maths enhancement programme as being particularly useful and having measureable impact.

National CPD programmes are accessed by fewer practitioners, although some, especially those leading to subject qualifications, are still seen as useful.

The Foundation will wish to build on the desire reflected here for a parallel English Enhancement programme and for wider access to the maths one.

## **8 What relevant professional learning processes and opportunities are available to practitioners?**

Practitioner and leadership surveys and focus groups all agreed that the process used most was observation of practice with feedback, typically associated with performance review. Practitioners also have good access to a range of other opportunities such as formal internal training sessions or days, observing colleagues' practice to learn from it and experimenting in the classroom. Collaborative planning around curriculum or resources development was also said to take place through specific sessions and meetings.

Learning from colleagues was identified as an available opportunity and this featured sharing ideas (78%), observing practice, peer coaching and joint planning (all around 48%). Rarer were team teaching and action learning sets. Leaders also saw networking events as playing a role in transferring practices. Significant numbers access mentoring and coaching, e-learning and exam and awarding body updates. Participants also cited external conferences and seminars, sessions run by colleagues (e.g. to disseminate information, resources, etc.) and formal extended/development training as significant opportunities for professional learning. Few said they access action research, learning walks and structured academic style research. Responses were similarly infrequent for master classes, learning interventions and industry updates. There is no mention of developing an

underpinning rationale (or practical theory) side by side with practice or of collecting and using evidence about how staff and students' learning connects. Evidence from research suggests that 'sharing ideas' is an ineffective vehicle for staff development unless highly structured. Likewise, collaborative planning has no staff development benefits in the absence of debriefing and appropriate follow-up.

Practitioners access a variety of other professional development processes, particularly collaborative learning involving colleagues (e.g. peer observations, sharing ideas, classroom experiments, collaborative planning and resource development). The literature reviews from phase one, and answers to other questions, identify the importance of structuring the collaboration and sharing activities.

Although many practitioners access formal training sessions, awarding body updates, external conferences and e-learning, more academic inputs and industry updates are less common. The Foundation may wish to build on the strengths identified here and address the less well developed areas in its specifications of support for professional learning in relation to English and maths at Level 2.

## **9 How far does provision match what the evidence tells us works re CPD?**

Several aspects of current support for professional learning are strong and consistent with what research tells us works for CPD for teachers and their students where they are offered. These include specialist, evidence informed contributions, for example observation and feedback and the chance to observe effective practices. Provision also reflects evidence about CPD through activities such as peer observation, collaborative planning and review, coaching and action research.

However, there is also evidence that other processes that research suggests are important in ensuring that teacher development benefits students are not widespread. Specifically there would need to be more of the following for an investment in CPD to support English and maths to realise its full potential:

- A focus on aspirations for students and on sub groups of students;
- In-depth exploration of evidence regarding how staff and student learning connects;
- identification of the underpinning rationale of English and maths delivery, side by side with practice;
- Use of tools and resources to secure consistency and sustained work based professional learning over time.

A number of widespread practices (e.g. sharing ideas and joint planning) have little impact on teaching and learning practice unless deliberately and carefully designed.

It is interesting to note how the learning experiences and processes needed for teachers mirror those that teachers and leaders wish to put in place for learners to ensure students succeed at Level 2. The evidence about the importance of CPD is strong for leaders at all levels and for participants it is extensive. There is also much agreement about the strengths of what is available, together with widespread understanding of the potential of structured collaboration rooted in peer observation and a degree of specialist support, for example through coaching.

Professional learning processes that should be built into the specification for further CPD support, if the Foundation wishes to build on the stable and mature evidence about what makes a difference to both students and their teachers, include:

- A focus on aspirations for specific sub-groups of students to enable in-depth exploration of evidence regarding how staff and student learning connects;
- Activities that help teachers develop an understanding of the underpinning rationale for Level 2 maths and English teaching approaches side by side with their use;
- The provision/ development of tools and resources to secure consistency;
- Structures that ensure work based professional learning about teaching is sustained over time.

### **10 What professional learning processes and opportunities are perceived most effective and efficient in helping practitioners to develop their knowledge understanding and skills?**

This question was asked in relation to the professional learning processes which are seen to deliver high quality (including GCSE level) maths and English learning in vocational contexts. The results mirror closely the responses made to question eight above, with the most used being perceived as the most effective and efficient. The most significant professional development opportunities were identified as observation of practice with feedback, observing colleagues practice to learn from it and experimenting in the classroom. Exam and awarding body updates, mentoring and coaching and e-learning (e.g. webinars) were accessed by many, although relatively few found them useful.

With regards to specific processes and practices, most significant were cross-curricula planning, formal and informal collaboration (including observations, shared staffrooms and regular meetings), training days, joint working and research initiatives. There was also a focus on sharing resources, in particular the shared development of schemes of work, learning resources, study aids and other paperwork. There were a range of miscellaneous processes seen as valuable including graduate schemes, initial assessment and one-to-one support; personalized plans, tutors and trainers devising and sharing examples of English and maths, and progress sessions which have a focus on English and maths. IT related processes were featured in a small number of responses, with the use of the VLE, the use of technology to support collaboration and ICT being utilised to complete sections of course, for example with learners using ICT to engage in English and maths outside the workplace/lessons.

Working with peers was seen as a valuable professional learning process which included activities such as developmental observation, especially English and maths peer observation, and collaboration and networks (both formal and informal, including networks/meetings/forums to share practice, on-line sharing, specialist pair learning and working with professional 'friends'). Team and mentoring approaches were also identified, such as team teaching and mentoring, including English and maths practitioners and vocational specialists. Standardisation processes were also mentioned, for example cross college marking policies, moderation, toolkits and handbooks, and also videos of good practice, standard setting for levels staff can teach and a shared annual calendar.

Practical and situated opportunities are seen by practitioners as being more useful than those that are more academic and de-contextualized. Observations with feedback and peer-observation are thought to be particularly useful, but it is essential to develop an understanding of the underpinning rationale behind delivery methods and strategies. Formal CPD is also regarded as

useful, especially if it is sustained and subject specific. Although widely available, e-learning and web-based resources are not regarded as particularly useful. Other processes seen as less effective include mentoring, appraisal, and awarding body updates.

## **11 What are the existing mechanisms and approaches to developing capacity and capability of the workforce to deliver English and maths up to Level 2 including GCSEs?**

Both practitioners and leaders were exercised by questions about how organisations identify capacity and the capability of English and maths; which job roles are regarded as being involved in the development of English and maths and who has the responsibility for developing English and maths capacity and capability. Little distinction was made between developing English and maths, and developing capacity for it. Five focus groups covered this area through citing CPD and performance management; recruitment and induction and standardisation. The leaders' survey also identified the use of skills audits as a mechanism involved in workforce management. Most participants saw building capacity and capability as a strategic as well as an operational issue, with SLT members often having an explicit role. However, the concerns of teachers were largely at classroom level and there is some evidence regarding the difficulties of pulling together classroom and middle and senior leaders' contributions, and about how well senior colleagues know their staff. Senior curriculum managers seem key here.

In terms of development specifically, two focus groups identified external sources such as "development agents", "coaches" and "research and policy developers", whilst others listed more regulatory organisations such as Ofsted and awarding bodies. Providers in the focus groups had a clear idea of how they identified the capacity and capability needs of their organisations with regards to the development of English and maths. The methods used included CPD and performance management, recruitment and induction and standardisation.

The evidence suggests a greater need for coherence between leadership at different levels and it would be useful to explore this further through debate. Also suggested is the key role for senior curriculum managers. The Foundation may wish to consider facilitating networking between such post holders to share and disseminate best practice and to consider ensuring effective articulation of the leadership contributions to curriculum and pedagogic initiatives in leadership programmes. Colleagues receive support to do this through "development agents", "coaches" and "research and policy developers" and regulatory organisations such as Ofsted and awarding bodies. Interestingly the ETF is not yet identified by providers as one of the organisations that can help them identify and develop capacity, and this is an area that the Foundation could develop.

## **12 Which types of support and incentives would help providers deliver mathematics and English up to Level 2 including GCSEs?**

Free text survey responses identified support needs for providers in several areas.

Contextualising/embedding English and maths was key, for example the coherence of curriculum content between exam and topics. Staff qualifications were identified, specifically giving staff the chance to develop GCSE teaching skills (and funding for this). Support for learners with complex needs, including more and better diagnostic testing was seen as a support issue. More integration between providers was seen as a helpful opportunity for collaboration. Support regarding the logistical difficulties of timeframes and timetabling across the college was mentioned in the context



of growth in numbers, and curriculum constraints such as roll-on/roll-off programmes. Support for functional skills deliverers such as forums for these staff to access would help providers.

### **13 Is there a need for a much wider national debate about the development of Mathematics and English?**

Evidence from focus groups and free text answers to surveys suggest some specific and unresolved issues the sector should explore through debate. These include organisational responses to the compartmentalisation within provider organisations of functional skills' staff and maths and English specialists. Also identified was how better to align SLT members', middle leaders' and teachers' efforts to address the challenges represented by ensuring all students succeed at Level 2 in English and maths, and the role of performance management, CPD and MIS in making such connections. The qualifications and skills set required to teach maths and English and the relative merits/ issues around deploying scarce maths and English specialists, as opposed to raising the level of skill of all staff would also be an area for national debate.

Exploring the possible perception gap between leaders and their staff over the latter's level of (over) confidence in specific aspects of Level 2 teaching and learning is an interesting area for further debate. It would be interesting to establish whether this is the case, or whether leaders might be undervaluing the skills of practitioners. It would also be useful to explore the apparent lack in much of the CPD experienced by practitioners of any treatment of the underpinning teaching and learning rationale/concepts and the weaknesses regarding meeting the needs of all students. Creating positive expectations and mind-sets regarding maths and English for staff, learners and employers will be important.

### **14 What is the scale of the challenge?**

Around 50% of teachers of maths and English are qualified above Level 2 in that subject and leaders and managers reported strong reservations about the capacity of existing staff to teach maths and English at higher levels. Many staff feel confident about a good number of the teaching challenges but more analysis is needed for sub groups of colleagues to establish whether this arises from lack of knowledge about what is involved in moving to Level 2, or lack of knowledge about the strengths of the workforce among leaders. Leaders and managers also believe there is a large scale volume gap to bridge by a mix of recruiting specialist staff, deploying limited numbers of specialist staff more effectively and 'up-skilling' the existing workforce to meet the challenge of developing the Level 2 skills of learners, who often have complex needs. The professional identities of staff (especially non-specialist, vocational teachers) will need to encompass English and maths, and barriers to taking 'ownership' overcome. The volume and possible depth of the challenge suggested by leaders' contributions suggests a need for:

- More readily available specialist ITT provision;
- Continuing CPD for existing functional skills teacher to equip them to teach GCSE;
- More readily available subject specialist CPD programmes that address inter alia the need to help teachers ensure they challenge every learner.

Other important aspects of the challenge include promoting, modelling and enabling evidence-based good practice in CPD and the development of valid and useful real-time evaluations of staff performance and current skill levels. Further analysis of these data for different groups of teachers is

needed to clarify how far differences of perception are accounted for by roles and lack of information

### **15 What more is needed that the Foundation should be doing to help providers deliver against this vital but ambitious agenda?**

The Maths Enhancement Programme is popular, widely used and is thought effective in addressing deeper learning (but less so for learner differentiation) and so an English Enhancement Programme is likely to be similarly useful. There may be a need to specifically address the needs of vocational staff in embedding/supporting maths and English in their programmes both because of concerns about their knowledge, skills and ownership of the issue, and because of the possibility they have less access to CPD than their non vocational colleagues. The need to resolve disparities between strategic and operational aspects of maths and English support will involve further investigation of inconsistent perceptions of staff skills and capability, differing views regarding classroom level and strategic organisational approaches and any differences in available CPD opportunities and perceptions of their effectiveness (usefulness).

The maths enhancement programme should be continued but refined to address in more depth ways of addressing student differentiation and challenge, and an English enhancement programme should also be developed. Further probing of the data should be undertaken regarding the balance of access to CPD for vocational and non vocational staff and differences of perception between strategic and middle leaders and classroom practitioners by carrying out cross tabulations for specific groups. Any substantive resulting differences should be explored via leadership programmes and, possibly through a national debate.

### **Findings and conclusions related to specifically to English**

English teachers (in vocational and FS contexts) feel more confident than others in combining systematic writing instruction with extended experience, but less than others in helping learners respond to literature. Teachers and assessors in vocational settings - and functional skills teachers - reported lower confidence in certain areas depending on subject. For English teachers/trainers, the challenge area was dealing with literature.

The forms of support perceived as needed which are not available for English include the following:

- Interactive and stimulating resources along the lines of Mymaths for English
- An English Enhancement programme offered as an affordable replacement for the previous Level 5 qualification.
- Bridging courses which are nationally recognised
- Subsidised training for staff to deliver GCSE English
- Support for literacy teaching in the same range as NCETM.

Free-text responses illustrated some concerns which centre around learner needs specifically for English. For example, three separate tests being off-putting for learners and participants said that they would favour combined reading/writing tasks. They also stated that the growing number of learners with very low-level literacy skills need quite specialised teaching and support and that students generally encounter particular difficulties with writing at a sophisticated level.



Impediments to organising effective English teaching include lack of funding for stepping stone qualifications in English (Cost and time) and the perceived current focus on maths rather than English. They felt that it is statistically harder for students in FE to upgrade when retaking English GCSE than maths. There was a perceived ‘obsession’ with GCSEs when Functional Skills are more useful to most vocational students (Focus on GCSEs.)

Although the lowest subject level of qualification held for English practitioners is slightly higher than maths (see Figure 1), it remains significant that for 29% of English practitioners, Level 2 is their highest level of qualification.

**Highest personal qualification in English and maths for those who teach it where M=maths teachers and E=English teachers**

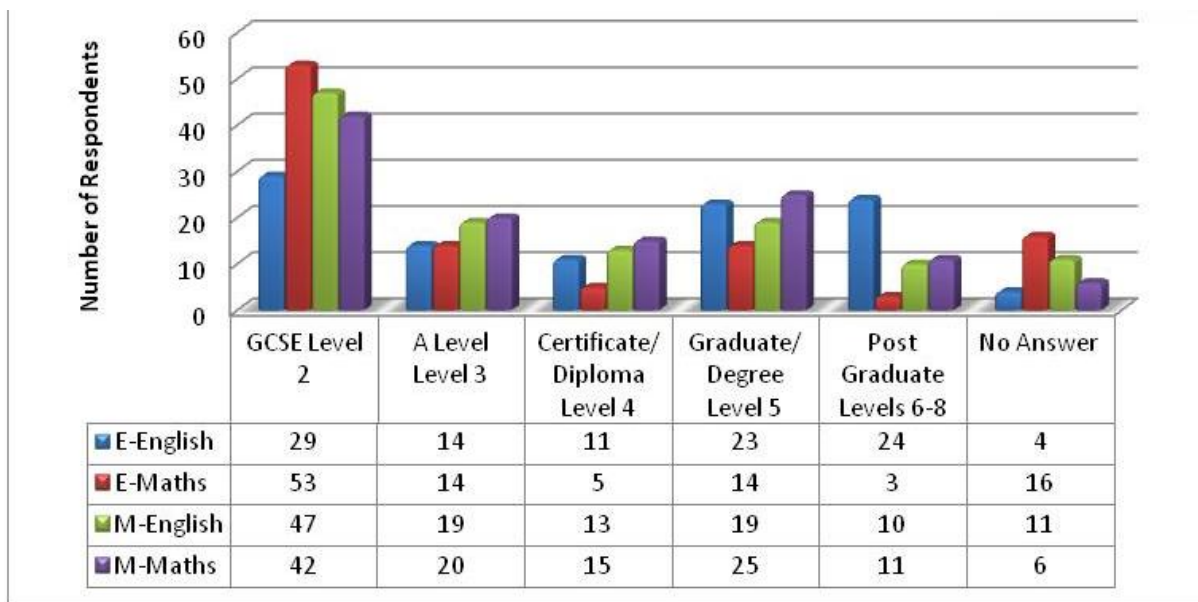


Figure 1 n(m)=119, n(e)=105

### Findings and conclusions related to specifically to maths

Maths teachers in vocational and functional skills contexts felt less confident than others about developing learners’ maths reasoning, exposing and discussing common misconceptions and developing collaborative learning in maths. Teachers and assessors in vocational settings - and functional skills teachers - reported lower confidence in certain areas depending on subject. For maths teachers/trainers, the ‘problem’ areas were developing maths reasoning skills and dealing with common misconceptions developing collaborative learning in maths.

Leaders also see the GCSE maths enhancement programme as being particularly useful and having measureable impact. This was also cited as a frequently accessed form of support by practitioners.

When leaders were asked whether English and maths pose different problems for them a higher proportion of respondents answered ‘yes-mainly maths’ than ‘yes-mainly English’. Regarding areas of maths that respondents felt particularly concerned about, free text responses included comments about GCSE maths teaching failing to identify and respond to students’ primary reasons for failing to achieve a grade C at school, and that GCSE maths teaching is didactic, with a race to the test.

Future challenges in developing and implementing a cohesive approach to supporting maths teaching included dealing with students who either don't want to study one/other or who have long and painful experiences of previous failure - especially in maths. Other concerns (from free text responses) included learners struggling to understand the questions -particularly those for whom English is not their first language. Managers thought that fewer colleagues were confident in maths than the practitioners were themselves with 62% (on average) saying that lots or most were confident. Focus group responses illustrated that the areas which participants felt they needed more help with were developing collaborative learning and discussion in maths and developing learners' understanding of mathematical concepts. These were also the areas in which maths teachers in vocational and Functional Skills contexts felt less confident

For over one third (37%) of practitioners, Level 2 was their highest level of qualification. Given that the study showed the perceived need for higher subject level qualifications, this is significant.

## Results

In the section which follows, detailed results are presented in relation to each of the different modes of enquiry used in the study. Full results can be found in the *Study Documentation Annex*.

### Practitioner survey

#### Confidence in English and maths:

A large majority (90%) of practitioners felt very confident about using diagnostic data and cooperative group work. For other aspects of teaching a slightly smaller number (85%) felt confident about developing learner motivation and understanding learner starting points, engaging learners in complex tasks and striking the balance between underpinning concepts and applying them within an everyday context. This also included feeling confident about developing learners' identities as confident users of English and maths. Practitioners were less confident (62%) about using digital technology as a learning resource.

Figure 2 below shows confidence levels relating to specific aspects of English/maths:

Practitioner survey: How confident do you feel about teaching the following aspects of English and maths?

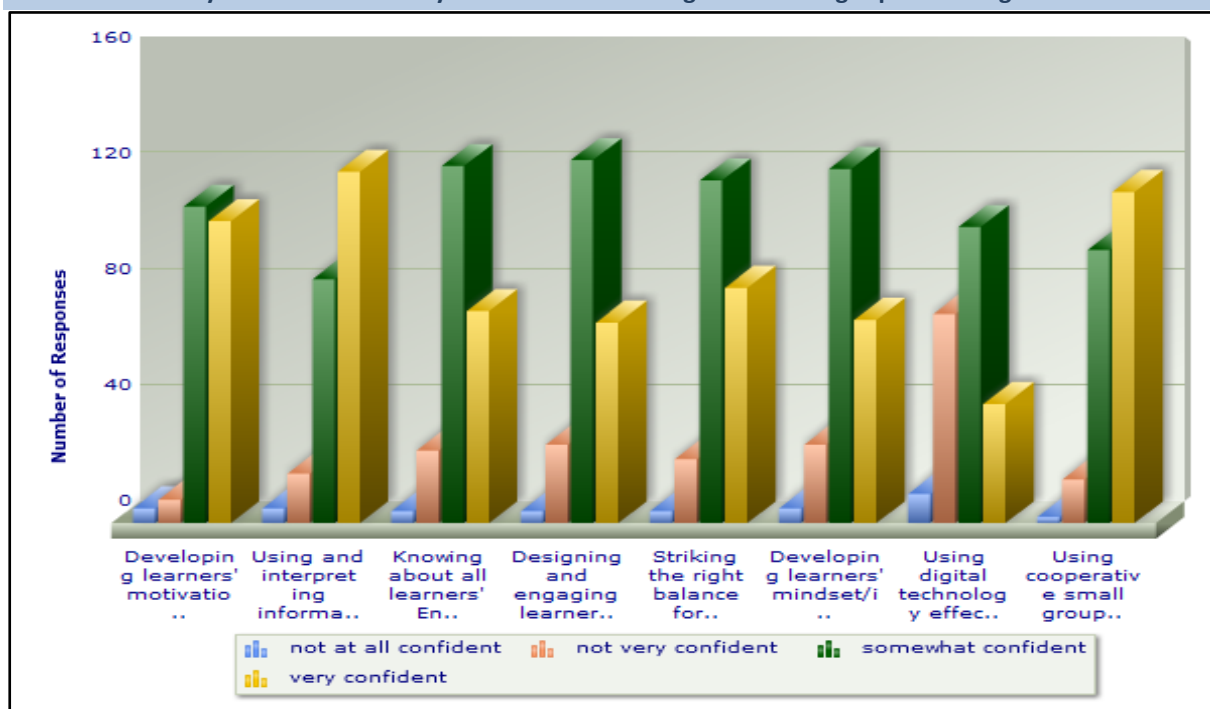


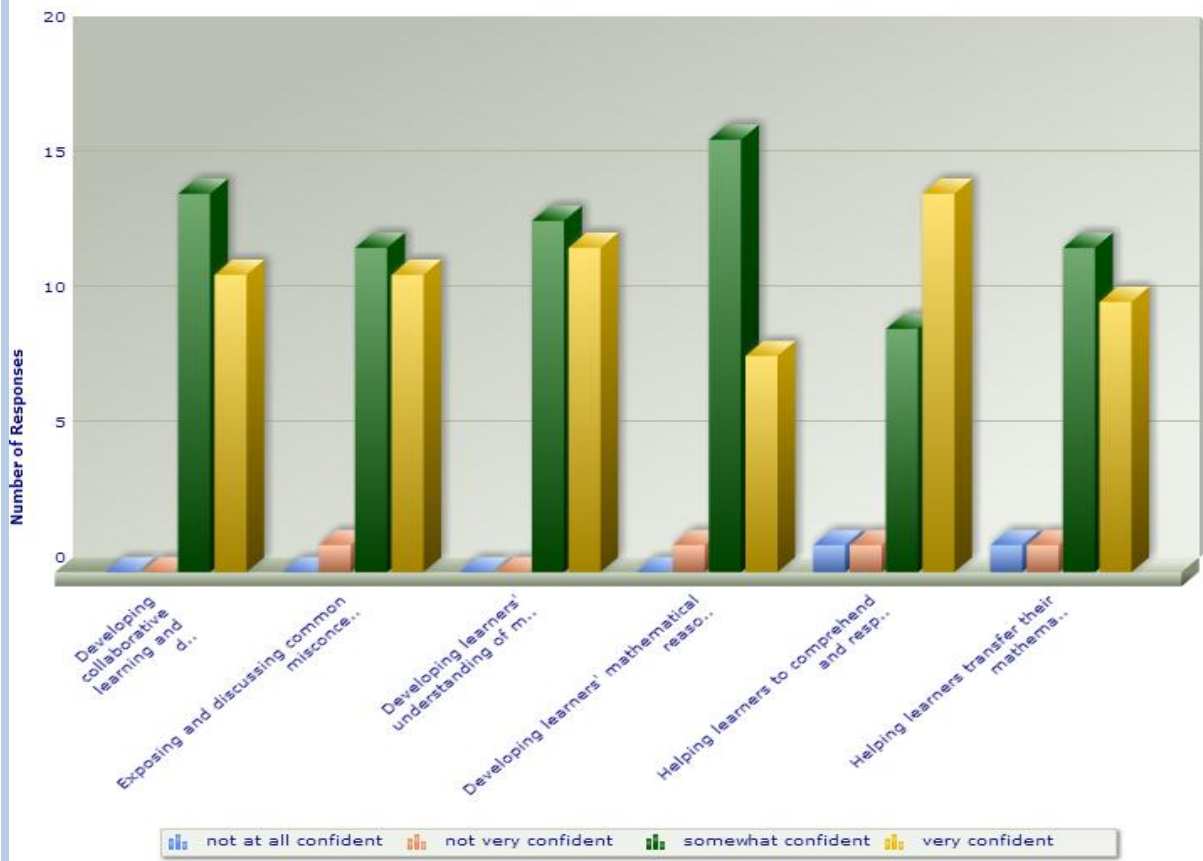
Figure 2 n=227

Practitioner managers generally shared practitioners' views but were a little more cautious about the confidence of their staff. 55-60% said that a lot or most of their staff were confident in developing learner motivation, using diagnostic data and understanding learner starting points and using cooperative group work. This also included confidence in engaging learners in complex tasks and striking the balance between underpinning concepts and applying them in everyday context. Over two thirds (67%) of practitioner managers thought they were confident in developing learners'

identities as confident users of English and maths. Significantly fewer respondents (34%) were confident about using digital technology as a learning resource.

### Confidence levels: maths and English distinctions

A fairly consistent 85% of maths practitioners felt confident or very confident in all the aspects of maths teaching they were asked about. English teachers were similarly consistent but slightly fewer (76%) were confident or very confident regarding specific aspects of English. At the individual subject level, managers thought that fewer colleagues were confident in maths than they were themselves, with 62% (on average) saying that lots or most were confident. A similar view emerges from managers of English teachers but at a slightly lower level (54%). *[Differences may arise from the large fraction (around ¼) of functional skills teachers in the sample who may not know GCSE requirements].* Maths teachers in vocational and functional skills contexts felt less confident than others about developing learners' math reasoning, exposing and discussing common misconceptions and developing collaborative learning in maths. This is illustrated in *Figure 3* below:



All survey respondents teaching maths: How confident do you feel about teaching the following aspects of maths?

Similarly English teachers (in vocational and functional skills contexts) feel more confident than others in combining systematic writing instruction with extended experience, but less than others in helping learners respond to literature (see *Figure 4* below).

Figure 3 n=25

All survey respondents teaching English: How confident do you feel about teaching the following aspects of English/maths?

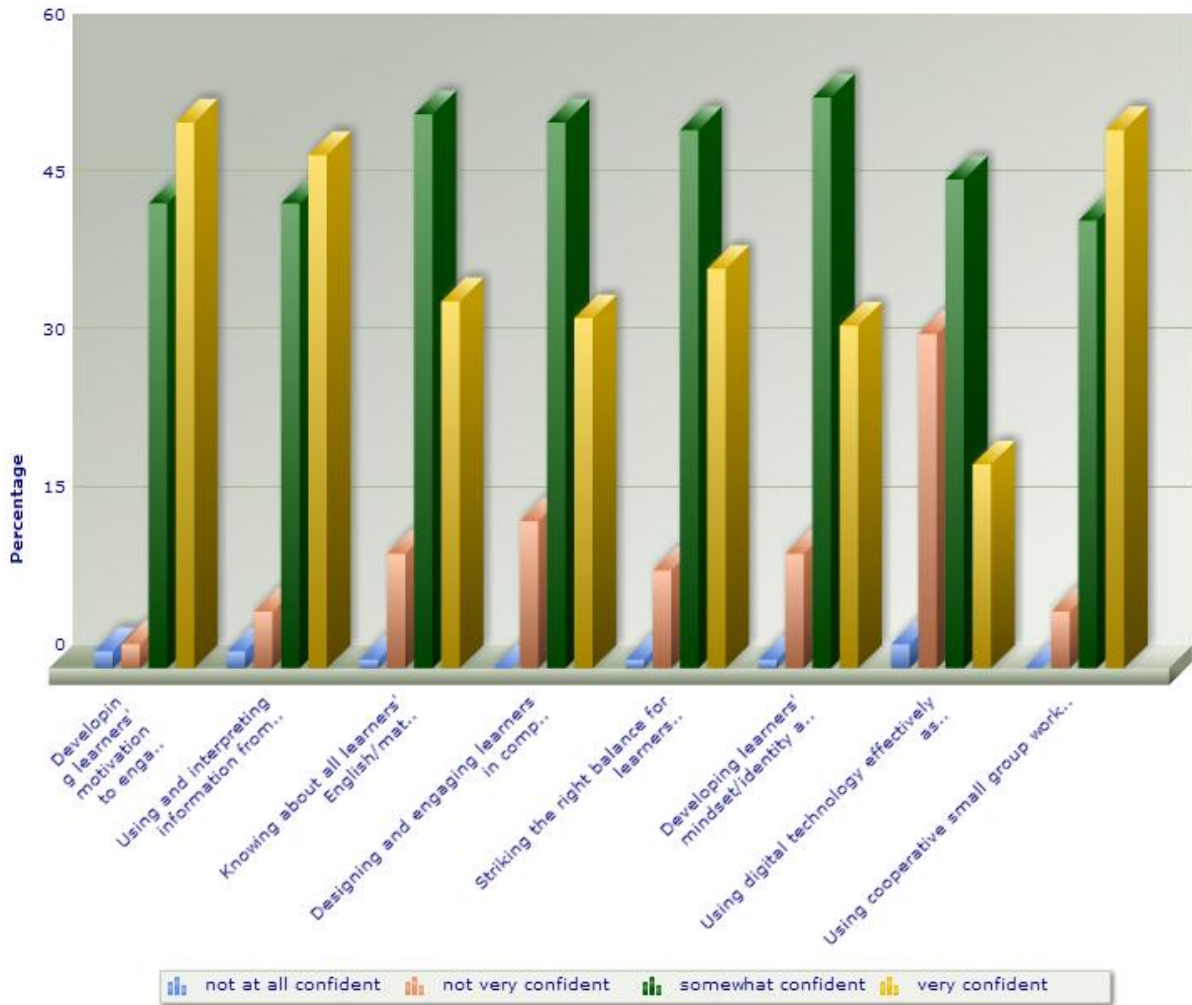


Figure 4 n=129

Professional Development and Support

Distribution of access to Professional Development support was significantly skewed in favour of non-vocational teachers across all programmes and levels (Figure 5 refers). Subject specialist programmes were most frequently accessed, followed by in-house CPD and the least used programme was Vitalising Maths, however this may be due to this being a new programme.

What support have you had to develop your teaching of English and/or maths?

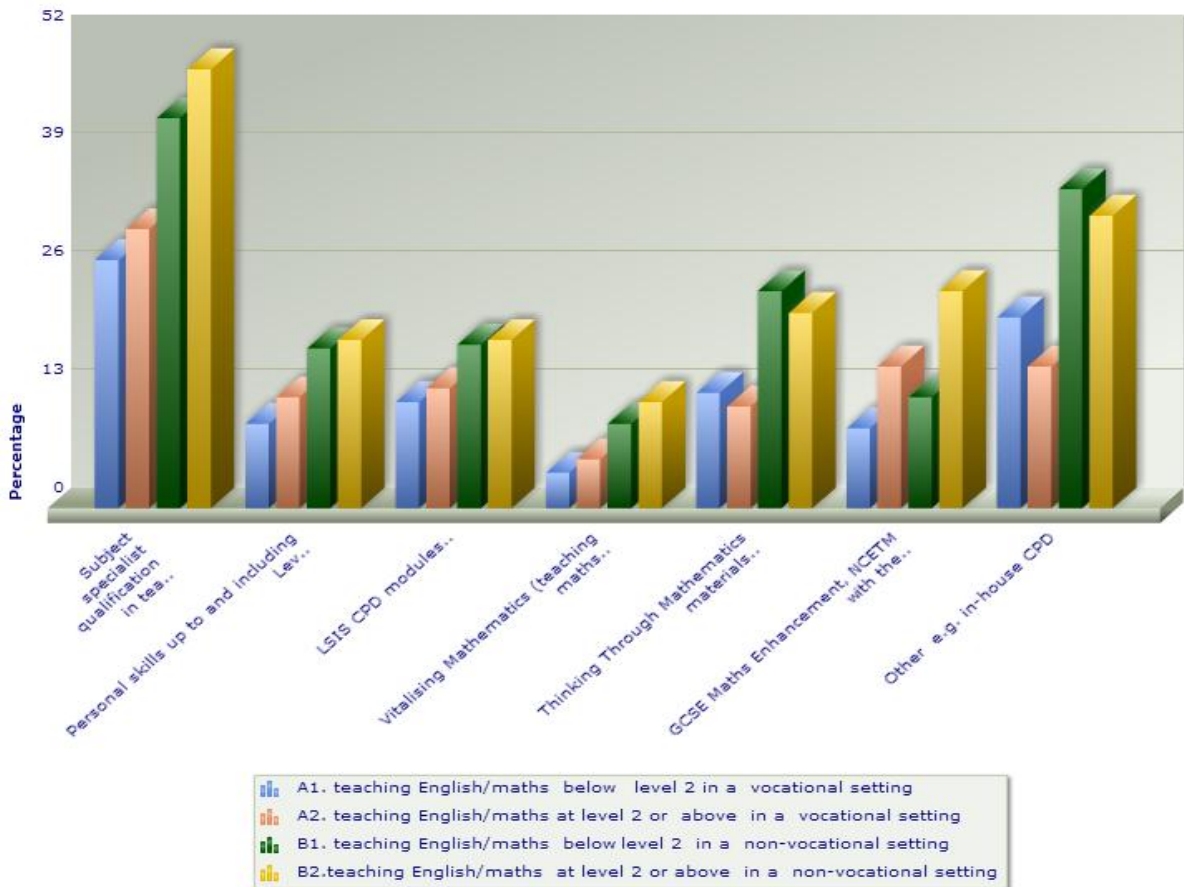


Figure 5 n=306

There was a similar pattern reported by practitioner managers but with a more even spread, and a greater focus on in-house CPD, as illustrated in Figure 6.



Which of these support mechanisms have you specifically made available for your team?

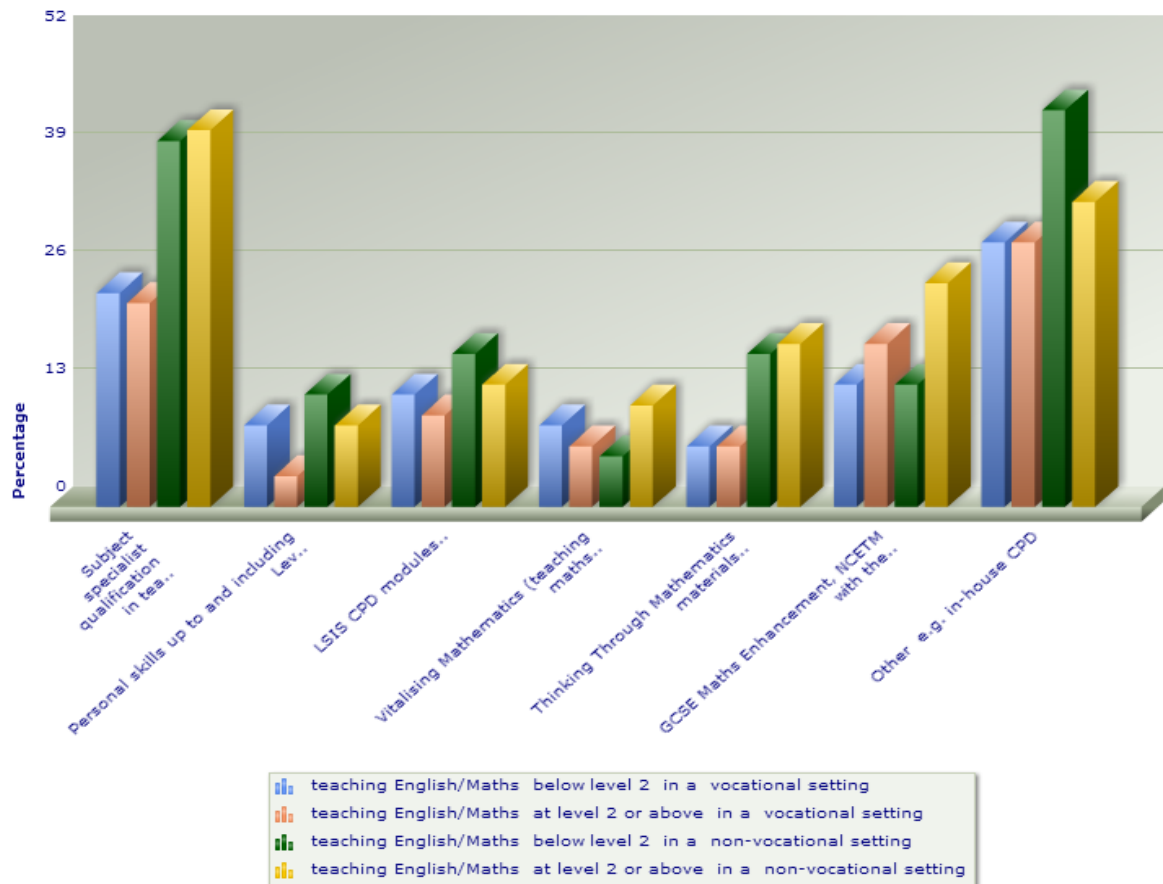


Figure 7 n=121

Practitioners found subject specialist (SS) training particularly useful for “developing discussion and reasoning that deepens mathematical understanding”. In-house CPD was seen as useful in all areas except “struggling with conventions”. This topic was relatively weak across all support interventions (but less so for SS CPD). All programmes (except SS and in-house CPD) were not highly rated for responding to learner challenge and differentiation.

Figure 7 shows which support arrangements have been substantially useful in helping participants address specific challenges:

Which of the following support arrangements have been substantially useful in helping you address the challenges shown in the columns?

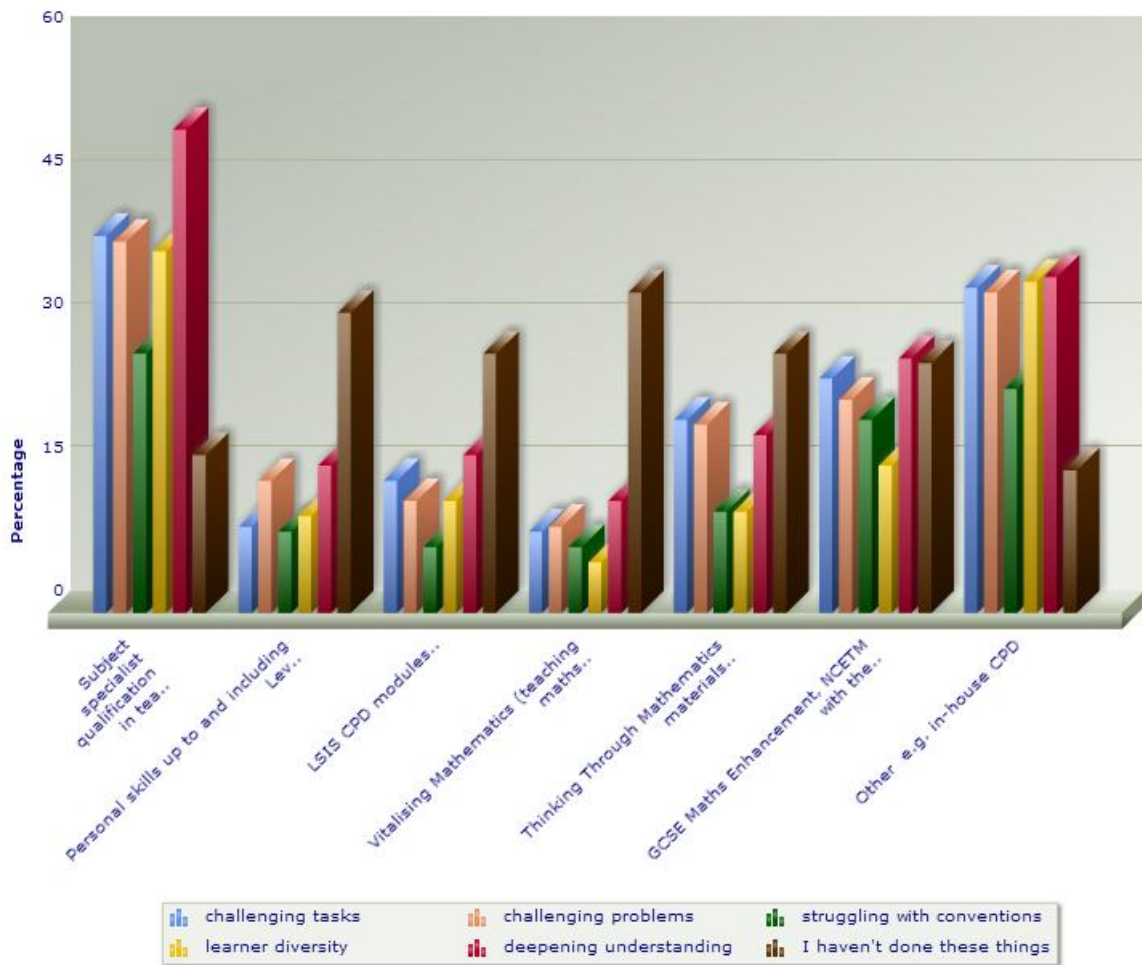


Figure 7 n=395

When considering which forms of CPD were most useful, practitioners recorded that the most available – and most useful - CPD involved observation. This included both observation with feedback (usually associated with performance management) and observing the practice of others. Formal in-house sessions were the next most widespread (93) but slightly less useful (78). Least used were industrial placements, learning interventions, learning walks and master classes and the biggest gaps between availability and usefulness were in e-learning and awarding body updates. Managers offered similar views but reported a bigger gap between availability and the use (and usefulness) of different CPD forms. In particular they reported an even bigger gap between e-learning availability and its usefulness. Practitioners reported a wide range of opportunities for professional development (see Figure 8) and many related to learning from colleagues, with the most cited being sharing ideas (78%), observing practice, peer coaching and joint planning (around 45%). Least common were action learning sets (6%), a shared project (19%) and team teaching (28%).

**What professional development opportunities do you generally have access to?**

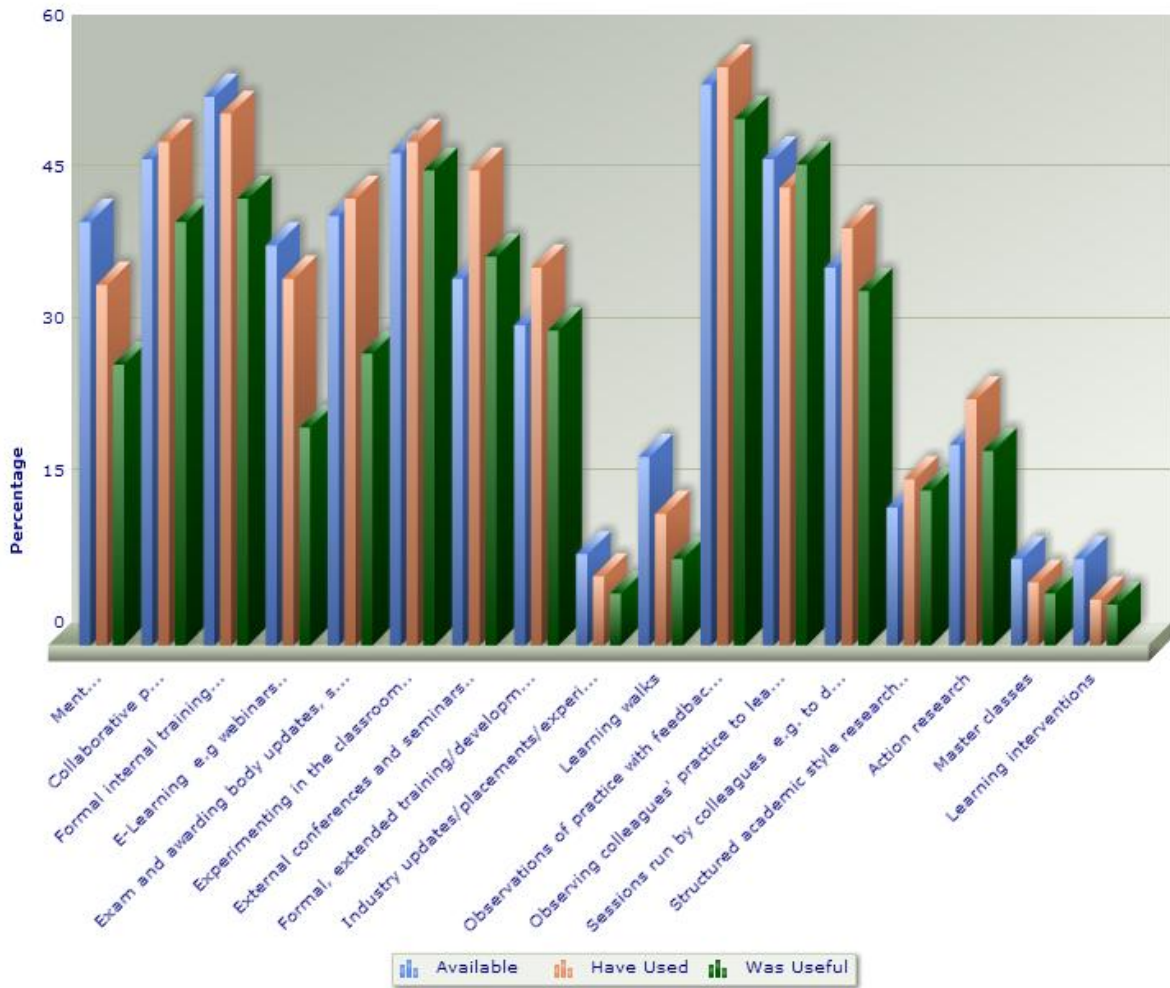


Figure 8 n=291

Again, managers largely echoed the views of practitioners with slightly less emphasis on sharing ideas and on networking events.

**English and maths practitioner qualification levels**

For maths practitioners, the highest qualification held in their subject was Level 2 for 37% of respondents. 32% held a qualification at Level 5 or above. For English, almost 29% of practitioners' highest qualification in the subject was at Level 2. Almost 47% held a qualification at Level 5 of above.

These data are represented in the graph above, *Figure 1*.

## Leadership survey

### The nature and challenge of delivering Level 2 maths and English

Teaching English and maths through specialist teams is the most prevalent approach adopted by organisations (54 respondents). Thirty four respondents teach it through vocational teachers and 30 through joint planning between specialist and vocational teachers. Most respondents (63/73) think the move to Level 2 is a problem but 39 of them think they have a workable strategy in place. Additional remarks focussed on CPD, recruitment and modes of delivery/ forms of teaching. The majority of respondents (35) think the problems are similar for English and maths, but 16 saw maths as a bigger issue and six saw English as a bigger issue. 48 respondents thought their approach was effective, 23 did not think it worked well and 13 did not reply.

### Rising to Level 2 English and maths

Concerns about rising to Level 2 promoted 55 free text survey responses from leaders. A full report of free text responses can be found in *the Study Documentation Annex*. They have several areas of specific concern set out below ranked by frequency of mention:

- **qualifications of staff**, (14) - recruiting and /or giving existing staff chance to develop GCSE teaching skills (6); the need to use specialists “to do just a bit here and there” if there is insufficient capacity (2); vocational trainers’ lack of confidence in their own English and maths ( 4); complexities arising from variation in student levels (2)
- **Contextualising/ embedding English and maths** (12) - identifying the need for consistency (5), the lack of coherence between exams /topics and its consequences for securing ownership (4) and ways of balancing teaching content and contextualising learning (3)
- **resources/time/class size**, (11) including lack of hours for learning and funding, which have consequences for getting to know students well enough to break down barriers (5). Other comments related to lack of access to resources (4) and recruitment of well qualified staff (2)
- **negative attitudes/ behaviour**, - engagement and active resistance of learners in the face of previous failure (5); attitudes of tutors towards change and the effort levels of some (3);the importance of resisting ‘quick fix’ pressures and the dangers of “uncomfortable maths classrooms” ( 2)
- **learner needs** - the growth in numbers of students with complex needs and low level skills (6); the specific form of GCSE e.g. English texts, and in maths the “race to tests” ( 2) ; the need for more/ better diagnostic testing.

Free text responses also outlined how leaders perceived the nature of future challenges. Responses fell into the following categories:

- **Staff** (20 comments) related to skills, availability, resourcing and confidence in performance and management;
- **External strategic leadership** - 12 comments were about: the clarity of message and coherence of approach (6), capacity to focus on this challenge in context of external competing tensions/pressures( 4); CPD support to improve communication with learners (2)

- **Logistics delivery** - nine comments concerned: delivery being consistent within timeframes and across sites when handling the sudden change in volume (7); managing the transition from functional skills in the context of roll on - roll off programmes( 2)
- **Learner skills and needs** - seven comments related to: poor learner motivation arising from previous failure (4); bringing employers on board e.g. working with learners with good vocational skills who might fail because of English and maths demands within the timeframe (3) ensuring all learners progress beyond practicing existing skills.

Respondents gave their ideas about how these challenges should be met, with comments in several areas. Six comments related to CPD including mandatory in house training and national programmes; recruiting and training more staff; using diagnostic assessments such as BSKB for staff to establish learner base lines and enforcing legal obligations on employers to support providers. Collaboration also featured in the responses, with six comments suggesting more integration between providers, for example between general and specialist colleges. Structuring English and maths was seen as a way to help manage the challenge, with six comments suggesting actions such as blended English and maths packages which would enable integration into the course, cross college GCSE timetables, strengthening induction and skills forums for functional skills staff. Also suggested was front ending English and maths qualifications and more examples of planned development in common qualifications to reduce ‘reinventing the wheel’. Raising the profile of English and maths was a further area recommended, for instance through a strong campaign, motivational displays and events (maths/ English weeks); matrix based timetabling; a ‘drive from the top’ and developing ways of engaging learners/celebrating successes.

### CPD and support

Leaders’ responses to survey questions about access to support showed that in-house CPD is the main form of support accessed, followed by subject specialist qualifications. (*Figure 9* refers).

The GCSE maths enhancement programme is the next most frequently accessed form of support. Understandably, given its newness, Vitalising Maths is the least accessed form of support listed.

What support for teaching English and/or maths has your organisation been able to access?



Figure 9 n=94

Figure 10 below shows that the three most prevalent forms of support were also seen as the most useful. Opinion was roughly equally divided regarding how measurable the impact was in all three cases. There was a significant minority who thought that in-house CPD really just raised awareness.

Free text responses about forms of support not available to them indicated that on-line support would be helpful e.g. an easy to navigate, resource bank targeted at sector areas to link English and maths with functional skills.



Which of those support arrangements do you think have been substantially useful?

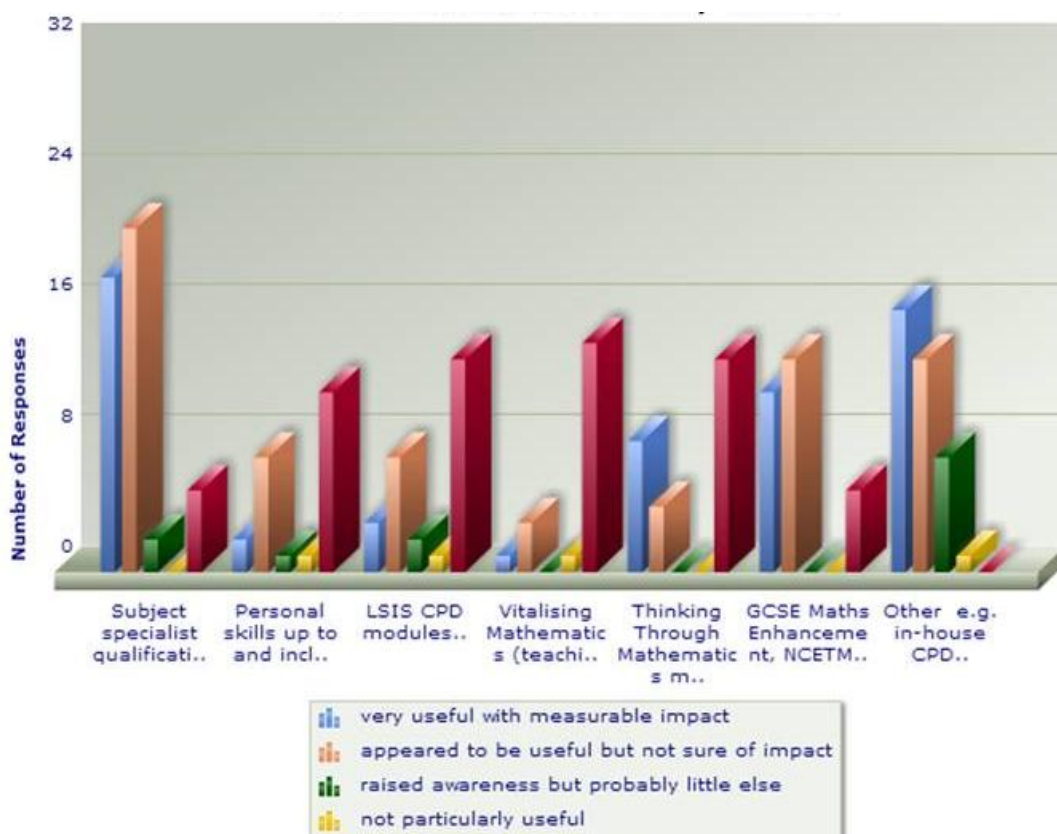


Figure 10 n=46

Regarding professional development processes, observation of practice with feedback is used much more often than other CPD processes. Holding formal internal training sessions is the next most frequent approach. Also fairly widely used were:

- observing other colleagues’ practice
- mentoring and coaching
- collaborative planning
- experimenting in the classroom
- external conferences
- Cascade sessions by colleagues

Few respondents singled out processes as not being useful. Those that did, focussed on academic research, action research, learning interventions and industry updating.

When asked about sharing ideas and practices, leaders’ responses indicated that sharing ideas is fairly widespread (illustrated in *Figure 11*). Observing others’ practice and, to a lesser degree, peer coaching are also thought to be widespread by a number of respondents. Some departments were thought to use a substantial amount of joint planning, peer coaching and team teaching. Networking events are also seen as playing a role in transferring practices.

For some respondents there are isolated but noticeable examples of running enquiries, team teaching, networking, joint planning and action learning sets.

**Do staff in your organisation get an opportunity to share ideas and learn from each other?**

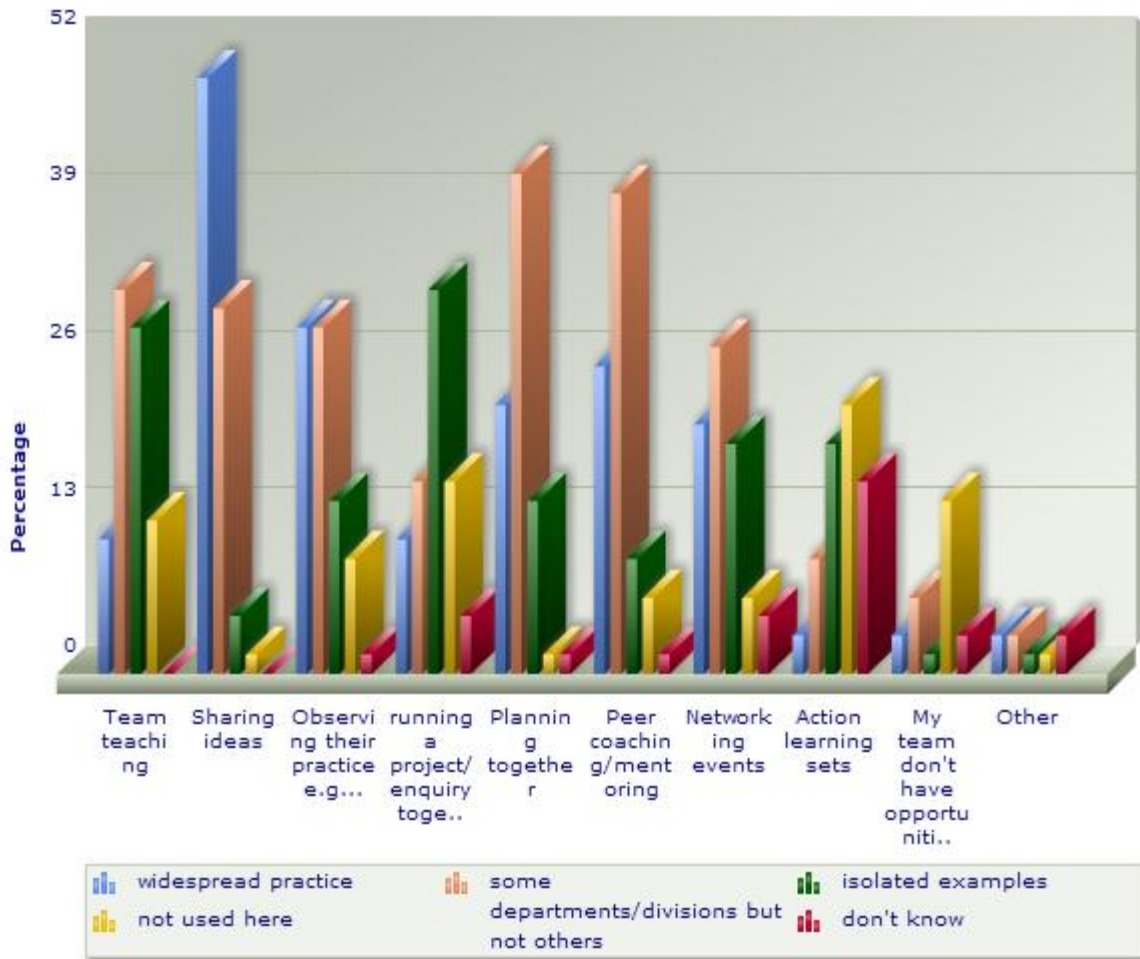


Figure 11 n=54

**Determining the approach to English and maths**

Almost half of respondents (47%) develop their organisation’s approach to English and maths through a senior post holder and 30% take this as a key strategic SLT decision. 12% deal with it differently at unit level, 7% say they don’t really have an approach and 4% offered other comments. Ten respondents offered no answer to this question.

This can be cross referenced to focus group results (presented below) where seven of the 13 focus group concept maps illustrated a wide array of different management roles involved in English and maths development. They also expressed roles in a very contained way, with vocational areas separated from functional skills areas.

Integration of English and maths into the curriculum was an important issue for leaders, with 37 seeing this being managed through observation of lessons and workshops, and 32 seeing it as something managed through all-staff briefings. 24 see this as a question for performance review and CPD – and another 24 see it as covered through mandatory CPD and 22 leave it to line managers and nine offered other answers. Practitioners stated in free text responses that they thought this was



managed through a whole organisation approach, involving collaborative processes (18 responses) and embedding English and maths into the curriculum (11 responses).

### Focus groups

The focus groups explored in more detail the ways that English and maths is being developed at organisational level. These results include evidence gathered through the construction of 'concept maps' within the sessions.

Broadly focus groups reinforced the patterns emerging from the survey. They helped in determining provider approaches to English and maths but also focus groups illustrated two ends of a spectrum of responses. Seven of the 13 focus group concept maps illustrated a wide array of different management roles involved in English and maths development and seven expressed roles in a very contained way – for example by separating vocational from functional skills and study skills. The concept maps suggest that leadership of different aspects of English and maths may be taking place in 'silos' and there are structural obstacles to overcome in some colleges if support for English and maths is to be reinforced coherently and consistently. All concept maps raise questions about how strategic approaches and classroom level process concerns can be effectively articulated.

Regarding motivating and helping teachers and assessors develop their own English and maths identities, examples were given of occasions when professional identity had been strengthened through delivering English and maths. These occasions included changing job role and rising to the new challenges it brings (11), developing deeper subject knowledge (9), CPD – both formal and informal (5) and curriculum change (2). Learner achievement (2) was also cited.

There were also specific motivations given such as improving confidence/awareness /growth (11, enhancing teaching (9), external/ SLT drivers (8) and improving knowledge and understanding (20).

Changing professional identity affected participants' knowledge, skills and beliefs. In terms of **beliefs** (31 responses) included confidence in participants' ability to make a difference, being flexible in responses and having a sense of team membership. Also cited were awareness of students' needs, 'professionalism' and the ability to grasp opportunities such as moving into leadership. Regarding **knowledge and skills**, 19 responses included the depth of subject knowledge increasing, but also pedagogic skills such as confidence to use more challenging approaches, for example group work. More analytical thinking and better problem solving were also mentioned. Embedding maths into vocational education was also seen as a process which requires skills and knowledge.

## Conclusions

The following section of the report collates conclusions based on the evidence of this study. These have been grouped by theme, and areas for the Foundation to consider further are highlighted.

### Practitioner confidence

The Foundation may want to consider further whether the confidence from practitioners in using strategies shown by research to be effective in supporting Level 2 English and Mathematics is based on a good understanding of the different types and levels of demand in Level 2 including GCSE . Further analysis of these data and a follow up validation seminar would be helpful in this respect.

The study has illustrated teachers' confidence and positivity as a sign of their professionalism. At the same time the discrepancy in leader confidence might suggest a need to explore how far greater information regarding Level 2 English and maths changes this.

The extent to which practitioners in the sector feel confident about, or find challenging or unfamiliar, underpinning principles in the delivery of English and maths is key. **The Foundation might wish to focus support in the following areas:**

- **Knowledge, qualifications and training in English and maths to deliver Level 2 for vocational and functional skills tutors. Higher levels of specialist English and maths qualification (Level 5) were seen as the way to deliver a better service to learners by some (14)**
- **The ability of vocational tutors to embed English and maths in vocational subjects and their lack of confidence in their own English and maths skills (9)**

### Specialist knowledge

In terms of the knowledge specialist practitioners need to contribute to subject learning in vocational contexts, the Foundation will wish to build on the desire reflected in the evidence for a parallel English Enhancement programme and for wider access to the maths one.

**The Foundation may wish to build on the strengths identified and address the less well developed areas in its specifications of support for professional learning in relation to English and maths at Level 2.**

So that tutors and assessors and subject specialists build on each others' expertise in day to day delivery, work commissioned by the Foundation needs to specify that approaches to supporting English and maths involve generating and supporting collaboration between combinations of:

- English and maths specialists and vocational tutors - to identify and maximise English and maths opportunities that exist within vocational learning contexts and increase confidence to deliver English and maths.
- English and maths specialists, vocational tutors and functional skills teachers need to ensure that functional skills are related to vocational contexts, lay a foundation for progression to Level 2 and increase the depth of subject knowledge.

It is also important to specify working processes and tools that bring structure and focus to such work, for example, cross-moderation and cross curricular schemes of work.

## Teacher motivation and mathematical/ English identities

The evidence about change and professional identity suggests that introducing Level 2 English and maths could represent a significant opportunity, if the development links to professional growth, and leaders engage with what it means for colleagues' professional identity, rather than merely knowledge and skills.

Key factors identified as being important, and having the potential to maximise opportunities for the sector include **encouraging the sector to structure responses to the Level 2 English and maths challenge through changes in subject knowledge, job role or through in-depth CPD, which should provide opportunities for professional growth. In addition, focusing on enhancing teaching through combining existing and new skills and on explicitly recognising, supporting and requiring professional growth is indicated as important.** Mobilising external and internal leadership and accountability drivers could be beneficial, for example, regarding the expectation that 'satisfactory' is no longer acceptable.

## Support for English and maths

The Maths Enhancement Programme is highly regarded and should be continued, perhaps with adaptations, and there appears to be demand for a similarly constructed programme for English.

Specialist subject support is felt to be effective but, paradoxically, national programmes are not. There is a demand (for cost and logistical reasons) for local and/or remote learning versions (via webinars). **The Foundation could consider researching and creating, or brokering, such provision.**

The survey question regarding support through e-learning gives as an example webinars - this may have skewed the response and is an issue that needs exploring further.

### *Professional learning processes and opportunities*

The evidence suggests an important role for middle leaders, probably senior curriculum managers, in terms of mechanisms and approaches to developing the capacity and capability of the workforce in English and maths. **The Foundation may wish to consider facilitating networking between such post holders to share and disseminate best practice.**

Evidence also highlights a lack of coherence between the contributions of teachers, middle leaders and senior leaders. **The Foundation should consider whether there is a need specifically to build from this, ensuring effective articulation of leadership contributions to curriculum and pedagogic initiatives into leadership development programmes.**

The study has shown a perception that colleagues receive support through "development agents", "coaches" and "research and policy developers" and regulatory organisations such as Ofsted and awarding bodies. As the Foundation is not yet identified by providers as one of the organisations that can help them identify and develop capacity, this may be an area to develop.

In order to build on sound evidence about effective professional learning, and about what makes a difference to both students and their teachers, the following might be valuable areas to pursue:

- A focus on aspirations for specific sub-groups of students to enable in-depth exploration of evidence regarding how staff and student learning connects;

- Activities that help teachers develop an understanding of the underpinning rationale for Level 2 maths and English teaching approaches side by side with their use;
- The provision and development of tools and resources to secure consistency in, for example, collaborative and sharing based CPD;
- Structures which ensure work based professional learning about teaching is sustained over time.

In terms of effective and efficient professional learning processes and opportunities to help practitioners develop their knowledge, understanding and skills, **the Foundation might wish to collect further information about how many providers do and do not have internal specialists, as these are needed to secure internal control of an effective response to Level 2 English and maths.** Whilst all providers would welcome support with the funding of CPD, time to undertake CPD is regarded as being similarly important.

**The biggest incentive expressed in the managers' focus group was the need for the "vision to stay in place for enough time for staff to put changes in place", so it may be worth considering if the Foundation is able to influence the rate and frequency of change.**

### Issues for further exploration and national debate

Evidence from focus groups and free text answers to survey questions suggest some specific and unresolved issues *the sector should explore through debate* in several key areas:

- Organisational responses to the compartmentalisation within provider organisations of functional skills' staff and maths and English specialists.
- How better to align SLT members', middle leaders' and teachers' efforts to address the challenges represented by ensuring all students succeed at Level 2 in English and maths and the role of performance management, CPD and MIS in making such connections.
- the qualifications and skills set required to teach maths and English, and the relative merits and issues around deploying scarce maths and English specialists as opposed to raising the level of skill of all staff.
- exploring the perception gap between leaders and their staff over the latter's level of (over)confidence in specific aspects of Level 2 teaching and learning.
- Addressing the apparent lack in much of the CPD experienced by practitioners of any treatment of the underpinning teaching and learning rationale/concepts and the weaknesses re meeting the needs of all students.
- creating positive expectations and mind-sets regarding maths and English for staff, learners and employers.

### The scale of the challenge

The volume and possible depth of the challenge suggested by leaders' contributions suggests a need for more readily available specialist ITT provision, continuing CPD for existing functional skills teachers to equip them to teach GCSE and more readily available subject specialist CPD programmes that address inter alia the need to help teachers ensure they challenge every learner. Also suggested were the promotion, modelling and enabling of evidence-based good practice in CPD and the development of valid and useful real-time evaluations of staff performance and current skill levels.

Further analysis of these data for different groups of teachers is needed to clarify how far differences of perception are accounted for by roles and lack of information.

### **What more is needed that the Foundation should be doing**

The maths enhancement programme should be continued but refined to consider in more depth ways of addressing student diversity. An English enhancement programme should also be developed. It is suggested that further probing of the data should be undertaken regarding the balance of access to CPD for vocational and non vocational staff and differences of perception between strategic and middle leaders and classroom practitioners by carrying out cross tabulations for specific groups. Any substantive resulting differences should be explored via leadership programmes and, possibly through a national debate.

## Acknowledgements

This work was carried out by a team drawn from CUREE and emCETT and its associates. The project had a very short timeframe and involved a lot of fieldwork so we needed a lot of workers to put ‘in the field’. The team comprised:

|                            |  |
|----------------------------|--|
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