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Studying English and Mathematics at Level 2 post-16: issues and challenges

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Introduction

Alison Wolf stated in her *Review of Vocational Education* (2011) that despite General Certificate of Secondary Education (GCSE) Mathematics and English being key to employment and education prospects, less than 50 per cent of students achieved grades A*-C in both qualifications. The review recommended that English and Mathematics should form a required component of post-16 study programmes for those without GCSE grades A*-C in these subjects, working either directly towards GCSE or other qualifications which provide "significant progress" towards GCSE success.

This recommendation proved to be the catalyst for a number of revisions to Government policy. This article looks at these post-16 policy changes and the subsequent challenges and issues faced by students, teachers and providers of English and Mathematics at Level 2. It covers GCSE resits and Functional Skills. In addition, it aims to shed light on what support is needed by students and teachers, and whether those support needs differ according to the qualification in question.

The majority of published commentary in this area relates to learners in Further Education (FE) colleges who are resitting GCSE English and/or Mathematics. There is little work on those in other settings (e.g., sixth form colleges), or those taking other qualifications in English and Mathematics post-16. There is also more research relating to Mathematics than to English, although many of the findings may apply to both subjects.

Policy changes and effects

In 2014, the Government introduced the requirement that students in England aged 16–18 who have not achieved at least a grade C/4[1] in GCSE English or Mathematics should continue to study these subjects as part of their programme of study (Education and Skills Funding Agency, 2019). Furthermore, from 2015, it was decided that those students who have achieved a "near pass" (grade D/3) in English[2] and/or Mathematics must study a GCSE course. Those who achieved grade E/2 or below must study for a GCSE or an approved stepping-stone qualification (Education and Skills Funding Agency, 2019).

For the academic year 2019/20, students with a GCSE grade 2 or below in English and/or Mathematics can study for a Level 2 Functional Skills qualification or a GCSE grade 9 to 4. If these students achieve a pass grade for Level 2 Functional Skills, then they are no longer required to work towards the GCSE. Those with a GCSE grade 3 are still required to study for GCSE grade 9 to 4 (Education and Skills Funding Agency, 2019).

These Government requirements have led to significant increases in entries for students aged 17 and older taking GCSE English Language and GCSE Mathematics since 2014 (FFT Education Datalab, 2018). In 2014/15, around half of all post-16 students who did not achieve a pass grade in English or Mathematics were enrolled in FE colleges (Department for Education, 2016). Interestingly, sixth form colleges and sixth forms in schools achieve higher pass rates compared to FE colleges, possibly due to their higher entrance criteria and differences in teacher characteristics (Higton et al., 2017).

Although much of the research in this area concentrates on FE colleges, there are other settings to consider. (Creese, Litster, & Mallows, n.d.) addressed the impact of the Government requirements on

1. In 2017, the 9-1 grading scale was introduced for GCSEs in England, replacing the A*-G scale. Grade 4 is equivalent to grade C (Ofqual, 2017).
2. Students achieving C/4 or higher in English Literature are not required to study English post-16 (Education and Skills Funding Agency, 2019).

different settings including FE colleges, private training providers and work-based learning, adult and community learning, and prisons. They found that staff in organisations delivering apprenticeships or work-based learning qualifications may be confident when teaching Functional Skills, but have little to no experience of GCSEs.

Vidal Rodeiro (2018) reported that the resit policy has been criticised by stakeholders and other commentators. The figures for 2018 showed that most students[3] who retook GCSE English and/or Mathematics did not improve their grade (Sezen, 2018). Vidal Rodeiro (2018) showed that many students failed to achieve the required grade by the time they left compulsory education, even if they retook multiple times. In fact, the probability of improving their grade decreased with the number of resit attempts. There are concerns that repeated GCSE resits are demotivating and can impact students' mental health (Belgutay, 2018).

Students

This section looks at the challenges faced by students and considers student backgrounds, motivation and support needs.

Student backgrounds

There is evidence that students from disadvantaged backgrounds are disproportionately represented in the cohort who have not achieved the required grades for GCSE (Jerrim, Greany, & Perera, 2018; Maughan, Smith, Mitchell, Horrocks, & Taylor, 2016; Skills Commission, 2016). Furthermore, disadvantaged students are less likely to achieve C/4 grade GCSEs in English and Mathematics post-16 than non-disadvantaged students (Belgutay, 2017; Impetus, 2016).

Those students who have special educational needs or disabilities (SEND) or speak English as an additional language (EAL) may also be overrepresented. Students will have differing cultural, socio-economic and geographic backgrounds. There may also be other considerations faced by this group, such as personal maturity, aspirations (Skills Commission, 2016), vocational confusion, described as "not having identified their skills and not knowing what is involved in specific careers," (Williams, Hadjivassiliou, Marvell, Green, & Newton, 2017) and complications such as caring responsibilities, homelessness, or any number of adverse life events (Higton et al., 2017).

Student motivation, attitudes and emotions

There are concerns that the mandatory requirement to study English and Mathematics creates resentment and demotivates students (Education & Training Foundation, 2014a). Students affected by this policy:

- tend to be disaffected by their prior learning experiences;
- are more likely to see the compulsory study as a result of their "failure" at GCSE;
- hold negative beliefs about their ability (e.g., that they cannot achieve in the subject); and
- demonstrate an unwillingness to engage.

(Creese, Litster, & Mallows, n.d.; ETF, 2014a, 2015; Higton et al., 2017).

As a consequence, one key finding from the literature is that providers recognise the need to restore students' self-confidence and their confidence in the education system in order to give them the best chance of achieving in English and/or Mathematics (Williams et al., 2017). Demotivation is likely to be most acutely felt by those students with D/3 at GCSE, who are required to resit GCSE without the opportunity to build confidence with stepping-stone qualifications (Williams et al., 2017).

Bellamy (2017) describes a particular tension when it comes to GCSE resits post-16. On the one hand, students have embarked on their chosen progression path and expect to be treated as young adults. On the other, English and/or Mathematics is a compulsory requirement, which is undeniably linked with the school context and the negative associations that those students who have left school may have. Robey and Jones (2015) found that post-16 resit students were likely to say they had not enjoyed English and/or Mathematics at school, so disengagement and demotivation are likely to stem from the requirement to continue with them.

When FE students talked about Mathematics, Bellamy (2017) found that they often referred to the set that they were placed in at school, which suggests that long term personal beliefs about ability can be formed while at school. In a review carried out for the Department for Education, Professor Adrian Smith related this to a wider societal negative view of Mathematics in particular (Department for Education, 2017). Larger class sizes at school and the perceived "unavailability" of the teacher were cited by students as barriers to achievement at GCSE, while learners also described embarrassment at having to ask for support in front of peers (Robey & Jones, 2015).

When studying English and/or Mathematics post-16, negative emotions can be further compounded by repetition of subject content, which can demotivate students who found the concepts difficult first time round, whilst also serving to emphasise where they have previously failed (ETF, 2015). Although it appears to be less commonly used post-16, the traditional transmission teaching style associated with the school context can cause students to feel like they are "back at school".

Higton et al. (2017) noted that although the majority struggled with negative emotions around English and Mathematics, some students took a more positive approach. This was mainly observed among those who recognised that gaining the GCSE is required for their future progression or desired career paths.

Student support needs

A number of supportive strategies which improved outcomes for students were identified in the literature (Anderson & Peart, 2016; Curee, n.d.; ETF, 2014a; Robey, Woodhouse, & Downes, 2016). These included:

- a range of ways to access support, for example: additional one-to-one tuition or drop-in sessions which allow students to ask for help on specific areas of difficulty;
- building relationships with teachers in which students feel respected and are treated more like adults to increase motivation;
- small teaching groups to encourage a supportive learning environment and increase access to support;
- regular assessments and feedback to enable learners to chart their progress;
- practical and interactive teaching methods;

3. Only 27.7 per cent of 18-year-olds retaking English language achieved 4/C and above, while 14.3 per cent of 18-year-olds retaking Mathematics achieved 4/C and above (Ofqual, 2018).

- real-life contexts and an understanding of why tasks or activities undertaken are relevant and necessary; and
- assessment strategies, for example: understanding mark schemes, advice on structuring answers and revision guidance.

Students who speak English as a second language may struggle with Level 2 English, as might be expected, but also Mathematics, since a certain level of English is required to understand the Mathematics content (Higton et al., 2017; Robey et al., 2016). Students with SEND or mental health issues may also have experienced difficulties with English and Mathematics at school and need extra support at post-16. This support can take the form of "official" allowances for those with a statement of additional needs, such as extra time in assessments and scribes. Less formal support can also be offered such as additional one-to-one support, sessions on tackling exam anxiety, or tailored learning pathways.

Teaching

Approaches to teaching need to take into account the support needs of post-16 learners. This section looks at motivating students, determining students' skills and support needs, and delivery strategies.

Motivating students and building confidence

ETF (The Education and Training Foundation) stated that "building learner confidence and challenging maladaptive beliefs" is vital for those studying at post-16. They listed mentoring, one-to-one support, clear progression routes and tailored provision as ways to build learner confidence (ETF, 2014a). Some providers begin the process of improving engagement before students are enrolled with them. When describing how they publicised their offering to prospective students, many providers presented their programme as an alternative to the academic progression route, emphasised how the teaching differed from school approaches, and characterised their offering as a second chance (Williams et al., 2017).

There are indications that levels of engagement improve if students see gaining the GCSE as a means to achieving their desired career or progressing to university (Higton et al., 2017; Robey & Jones, 2015). For those following vocational courses, presenting English or Mathematics in a vocational or real-life context heightens the perceived relevance and subsequent engagement (this is explored further below).

Some providers recognise the impact of students' negative beliefs and encourage positive mental attitudes and growth mindsets, reframing the situation as "haven't achieved the required grade yet," instead of focusing on "failure" (ETF, 2014a; Higton et al., 2017). There is a great deal of research into mindsets, and how to encourage students to change from a fixed to a growth mindset. ETF (2014a) cited Carole Dweck's work and summarised the ways that teachers can promote growth mindset:

- By teaching students about the new science of brain plasticity and the new view of talent and giftedness as dynamic attributes that can be developed.
- Through the portrayal of challenges, effort, and mistakes as highly valued.
- Through process praise and feedback.

(Dweck, 2008, pp.9–13)

Anderson and Peart (2016) interviewed students enrolled on a fast-track GCSE course at an FE college and found that teacher support and peer support both contributed to these students' motivation. They suggested that peer cooperation and group interaction can increase positive perceptions of learning and educational achievement. Learners also cited smaller class sizes as increasing the support available from teachers compared with previous class sizes at school.

Stepping-stone qualifications can be a way to build students' confidence in preparation for GCSE. Functional Skills is the most commonly used qualification for this purpose (although not designed as such).

Diagnostic assessment

Some providers find a GCSE grade alone to be an unreliable indicator of ability (ETF, 2014a) and may seek students' exam *marks* data in order to establish their position within a grade band. Some colleges therefore request students' prior results data from schools (Higton et al., 2017). However, given that colleges rely on schools' willingness and ability to provide the information, this situation can lead to difficulties with the timeliness and quality of the data available. As Robey and Jones (2015) pointed out, delays can have a knock-on effect on learners, such as being placed in the wrong group or not having any additional needs identified early enough.

Previous formal assessments may not provide the full picture of students' skill levels, and in some cases the length of time between taking GCSEs and the start of the new academic year can further reduce knowledge and skills (Higton et al., 2017). In addition, some students may not have previously taken GCSEs while some students may possess good subject knowledge and skills but struggle with exam strategy, test anxiety or a lack of preparation skills. Diagnostic assessments are therefore a vital part of the post-16 picture.

When a new intake of students who did not achieve the required grades in English and/or Mathematics begin post-16 study, providers' first step is usually to ascertain their current level of knowledge and skills in order to organise classes and make decisions about which qualification(s) to target (ETF, 2014a). Maughan et al. (2016) found evidence that initial assessment improved outcomes for both English and Mathematics.

Higton et al. (2017) stated that the aims of diagnostic testing are usually to identify students':

- current level;
- existing knowledge of topics;
- proficiency with routine tasks;
- gaps in knowledge; and
- additional support needs.

Providers should be mindful of how they conduct their diagnostic testing however, because students who are already at risk of being demotivated may find that an initial raft of tests confirms their belief that English or Mathematics at post-16 will simply be a repeat of the experience they encountered at school (ETF, 2014a).

The information gleaned from diagnostic assessment is then used to decide which qualification(s) students will work towards, organise levelled classes if applicable, and prioritise topics and concepts for groups. Porter (2015) reported that successful institutions divided

students into two groups – borderline (D/3 and some E/2 grades) and those further behind (F/1 and below) – in order to provide targeted teaching. As Higton et al. (2017) noted however, the resources available to the provider determines to what extent they are able to tailor their provision in this way.

An important outcome of diagnostic testing is to establish the topics and/or concepts that are well understood, in order to avoid unnecessary coverage. ETF (2014a) noted two benefits to this: one is preventing disengagement of students through repetition, and the other is not using valuable time to cover content that has already been mastered. They also emphasised the importance of Mathematics teaching being based on the current level of students. Students arrive at post-16 with at least some prior knowledge, and although the failure to achieve a desired grade might lead providers to "go back to basics", trying to cover a whole course may be repeating content that students have already mastered.

Higton et al. (2017) noted that results from diagnostic tests can be used formatively and some teachers incorporate formative assessment in lessons through progression tests and collaborative exercises such as peer marking.

One common strategy adopted by providers is to identify those students who are likely to achieve a pass grade with an early resit. This has the double benefit of motivating students (they can stop studying the subject if they pass) and, assuming they achieve the required grade, reduces the class sizes, allowing support to be focused on those that need it most (Higton et al., 2017; Porter, 2015).

Most providers use diagnostic testing to group students by level (Higton et al., 2017). However, if course structure or resources do not allow for this, and even when grouping is used, there is likely to be a range of students' abilities across a teaching group and teachers will therefore need differentiated tasks. Two approaches observed by Higton et al. (2017) were schemes of work with flexibility for teachers to adapt as necessary, and the setting of individual targets for students via software and online resources.

Delivery strategies

In post-16 settings, successful teaching strategies are likely to use a range of learning activities, such as group discussion or paired working – rather than approaches generally used in school, such as "explanation-example-exercises" (ETF, 2014a). A range of effective and less effective approaches were identified in the literature (Curee, n.d.; Higton et al., 2017; Maughan et al., 2016). These are collated in Tables 1 and 2.

It is important to note that effective strategies may differ between English and Mathematics. These tables reflect the research conducted into the approaches with measured outcomes, and this is the reason why classroom discussion, for instance, is not listed for English – it is unlikely that English is taught anywhere without classroom discussion, so its effectiveness has not been called into question.

There is increasing use of technology such as online learning, social media, and interactive apps on tablets or smartphones which give instant feedback (ETF, 2014a). Benefits of technology can be increased access to support, such as email contact with teachers, and streamlining activities, for example homework can be submitted online. Reviewing research into the use and benefits (or drawbacks) of technology was beyond the remit of this paper, but it may be that a large part of the value stems from engagement of learners.

Table 1: English delivery strategies

More effective	*Less effective*
Sustained support over time	Withdrawing students from mainstream lessons/ "catch up" study
Literacy interventions embedded in other curriculum areas	Mixed classes by vocational areas (e.g.,plumbers and hairdressers learning together).
Multi-strand approaches	
Peer-mediated support	
Whole language approaches	

Table 2: Mathematics delivery strategies

More effective	*Less effective*
Connectionist teaching methods[4]	Transmission teaching methods
Multi-strand approaches	Withdrawing students from mainstream lessons/ "catch up" study
Peer learning and support	Mixed classes by vocational areas (e.g., plumbers and hairdressers learning together).
Independent learning	
Interactive tasks	
Rotation of tasks/short tasks	
Use of technology	
Use of realistic contexts	
Classroom discussion	
Content embedded in vocational learning	

Contextualising

Williams et al. (2017) identified a variety of approaches to the delivery of English and Mathematics within FE institutions:

- English and Mathematics embedded in vocational areas and delivered by the same tutors;
- students grouped by subject areas and skills levels; and
- English and Mathematics taught separately from vocational classes by specialist teachers.

There is general agreement on the advantages of embedding English and Mathematics in vocational or real-life contexts (ETF, 2014a). Dalby and Noyes (2016) argued that Mathematics integrated with vocational learning encouraged students to change their beliefs about the irrelevance of the subject formed through their experience of GCSE. Higton et al. (2017) compared centralised and dispersed English and Mathematics departments and found that there were benefits and

4. Connectionist methods focus on dialogue-based teaching and encouraging students to make connections between Mathematical concepts while "reasoning out" challenges. Askew, Rhodes, Brown, Wiliam, and Johnson (1997) contrast connectionist methods with transmission and discovery teaching orientations.

drawbacks to each approach, with provider characteristics driving the decision to employ one or the other.

Embedding Mathematics content in vocational areas can help to clarify the relevance of abstract concepts and in such a way that students may not think of the activity as "Maths". Emphasising the importance of maintaining engagement, ETF (2014a) advised that the Mathematics content should not be prioritised over discussion in classroom settings.

Maughan et al. (2016) found some robust evidence for the positive effects of the use of realistic contexts in Mathematics and discussed Realistic Mathematics Education (RME) as one example of an intervention which emphasises contexts that interest students along with practical work and discussion. The RME approach was shown to improve understanding and the ability to solve mathematics problems (Searle & Barmby, 2012). ETF (2014a) outlined the benefits of real-life contexts for teaching Mathematics to vocational students, as increasing engagement, improving understanding and retention of information. They cautioned that contexts should be authentic and not contrived in order to maintain engagement.

Contexts can be used to teach Mathematics to vocational students in a number of ways:

- A realistic problem for students to solve, using skills they have already acquired.
- A realistic problem for students to solve in order to motivate and facilitate the learning of new skills.
- A realistic context to enable the students to see the point of the mathematics they are learning.
- A realistic context to help students make sense of abstract mathematics.
- A pseudo-context which looks as though it refers to real-life at first sight but does not.

(MEI, n.d., p.10)

Some providers were able to relate English and Mathematics to particular vocational courses, for example Higton et al. (2017) referred to a "Mathematics for plumbers" course. This is in line with the finding that English and Mathematics content tailored for certain vocational areas may be more effective than generic groups.

Teacher backgrounds

In 2015, Hayward and Homer found marked differences between those teaching Mathematics in sixth form colleges and FE colleges. Of those they surveyed, sixth form college Mathematics teachers tended to be younger, held higher Mathematics qualifications, mainly taught A Level Mathematics and were more likely to receive Continuing Professional Development (CPD) on a regular basis. In contrast, those teaching numeracy/functional skills in FE colleges were more likely to work part-time and hold qualifications in a non-Mathematical subject. Almost half of FE college teachers did not have an A Level or equivalent in Mathematics (Hayward & Homer, 2015). This broadly appears to be the same scenario for English, according to figures from Moss, Duncan, Harmey, and Muñoz-Chereau (2018).

Increased numbers of students of English and Mathematics at this level, fuelled by policy changes, have created a greater demand for teachers (Creese et al., n.d.). Coupled with prevailing teacher recruitment problems, this has resulted in reliance upon inexperienced teachers who may have had little time to develop the necessary knowledge and skills (Department for Education, 2017). Providers have needed to develop strategies for coping with this situation, including both recruiting new staff and ensuring existing staff are trained and supported (Creese et al., n.d.)

Strategy suggestions have come from a number of sources. Porter (2015) recommended that FE colleges should recruit English and Mathematics specialist teachers solely for the delivery of GCSE retakes and from there to build college-wide expertise through shared resources and skills. However, this would not provide the contextualisation of content discussed above. She also advised colleges to make the most of enhancement programmes and training bursaries, and to consider joining with other providers to share resources and expertise.

ETF reported the findings of the 2013 Commission on Adult Vocational Teaching and Learning, which characterised a problem with English and Mathematics in FE colleges as follows: "Specialist teachers have subject knowledge but lack vocational context, while vocational teachers are unable to embed literacy and numeracy" (ETF, 2015, p.14). ETF also commissioned the (2014b) *Strategic Consultation: Mathematics and English*, which brought to light some teachers' lack of confidence in their own ability to deliver English and Mathematics at Level 2.

Teacher support

In order to provide support to students, teachers themselves need development and support. A number of suggestions have been made to address those needs. In terms of learning content, ETF made the following recommendations for teacher development:

- A focus on aspirations for specific subgroups 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 Mathematics 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.

(ETF, 2014b, p.13)

ETF grouped teachers' responses by theme on what types of support would help them deliver English and Mathematics up to Level 2:

- Contextualising/embedding English and Mathematics
- Development of teaching skills, particularly GCSE
- How to identify support needs of students with complex needs
- Integration between providers
- Staff forums for those delivering functional skills.

(ETF, 2014b, p.14)

In addition, specific support needs relating to English included the development of interactive and stimulating resources, and support for literacy teaching in the same range as the National Centre for Excellence in the Teaching of Maths. Mathematics teachers expressed a need for

support in developing collaborative learning and discussion, which implies that delivery may largely still rely on transmission methods (ETF, 2014b).

Functional Skills

Much of the literature in this field concentrates on GCSE at post-16, therefore this section focuses on Functional Skills specifically. Functional Skills qualifications in England were introduced to replace key and basic skills qualifications. First teaching was available in 2010. Functional Skills qualifications are used for apprenticeships, as free-standing qualifications for 14–19-year-olds and for adult education (Ofqual, 2015). Although not designed to be stepping-stone qualifications, some providers use Functional Skills as such and they are listed as approved stepping-stone qualifications which meet the conditions of funding (Education and Skills Funding Agency, 2019). There is no formal progression pathway from Functional Skills to GCSE. Following redevelopment, revised Functional Skills qualifications have been taught from September 2019. The redevelopment focused on making Functional Skills qualifications more relevant for employment, and comparison with other qualifications easier, although there is still no formal progression to GCSE (Department for Education, 2018).

Student motivation and support needs

Robey et al. (2016) conducted focus groups with Functional Skills students in a variety of settings and found that like those retaking a GCSE post-16, many Functional Skills students had previous negative experiences of English and/or Mathematics. Therefore, much of the previous section relating to student engagement and motivation will apply to Functional Skills as well as to GCSE. ETF (2015) surveyed teachers and found that they believed "non-GCSE qualifications, and particularly Functional Skills, unlock motivation, give confidence and provide the tools to allow learners to fulfil their aspirations." This was confirmed by Robey et al. (2016), who found that learners themselves reported increased self-confidence and self-esteem through studying Functional Skills.

Enrolment on Functional Skills courses

The majority of providers sampled by Higton et al. (2017) routed students with E or lower in English and/or Mathematics onto Functional Skills courses, a pattern also reported by Williams et al. (2017). The reasons given for this decision were: to build up basic knowledge; concerns about students not achieving required grades at GCSE; and the effects of not reaching the required grades on student confidence and provider performance. However, some FE colleges preferred to enrol grade E students onto GCSE courses. The main reason given for this was to enable learners to concentrate on the GCSE, sometimes over two years, with the possibility of multiple resits to progress towards the required grade. Other reasons given were concerns over the changes to Functional Skills and the effectiveness of the qualification as a stepping-stone to GCSE.

Finally, Higton et al. (2017) reported that the requirement for those students achieving grade D/3 to study towards GCSE has resulted in organisational changes in FE colleges. Where previously two-thirds of students studied Functional Skills and one-third GCSE, that has now reversed.

Approaches to delivery

As with GCSE, alternatives to transmission teaching methods appear to be more effective for those studying Functional Skills. In focus groups, Functional Skills students mentioned their preference for smaller class sizes for the increased access to tutor support. They also found a mixture of classroom activities beneficial, including practical tasks and opportunities to discuss learning with their classmates (Robey et al., 2016).

Contextualising

For Functional Skills, contextualisation also appears to be a key issue. Students reported significant use of contexts in the teaching of Functional Skills, which encouraged them to use their skills in everyday life (Robey et al., 2016). For Mathematics, this could include comparing the cost of shopping or working out how much paint would be needed to decorate a room. For English, activities included writing a letter or an application for a job. These tasks are grounded in real life, and their relevance to the world of work or everyday life is clear to students.

Despite the emphasis on the benefits of context in the literature (ETF, 2014b; Maughan et al., 2016), there were mixed views on the use of context in assessment from students participating in focus groups. In both English and Mathematics, some found contexts useful while others found the context obscured the objective of the question (Robey et al., 2016).

Problems with context arose particularly for Mathematics, where learners described their time being taken up with reading the question or having to block out the words in order to access the numbers (Robey et al., 2016). Equally, contexts seen as irrelevant could be a distraction from the question objective. For Mathematics, the use of heavily contextualised questions can be an impediment, since English skills are required to access the questions. See Crisp, Johnson, and Constantinou (2018) for an exploration of how context, along with other features, can affect question quality.

Functional Skills and GCSEs

Views on Functional Skills versus GCSEs vary across students and teachers. Robey et al. (2016) reported that Functional Skills students themselves recognised the differences in content and delivery between Functional Skills and GCSEs. Functional Skills qualifications were considered by students to be relevant and useful, although some expressed the belief that GCSE was "better" and saw Functional Skills as part of their progression to GCSE.

Some teachers reported that it was easier to gain enthusiasm from students for Functional Skills as they believed they had already "failed" at GCSE and were averse to retaking it (Williams et al., 2017). ETF (2015) found that some FE teachers disliked the characterisation of Functional Skills as a stepping-stone to GCSE. The reasons for this were that the design and purpose of Functional Skills relate to preparation for the workplace and that practitioners felt progression should not be seen as the only or main outcome.

Addressing the challenges

It is clear that the biggest issues facing post-16 students and teachers of Level 2 English and Mathematics are student motivation and engagement, whichever qualification is being studied. Aside from students' attitudes, there is a complex set of challenges including varied support needs, students' differing levels of subject knowledge, identification of effective

teaching strategies and the availability of provider resources and lesson time.

Building students' confidence can be achieved through challenging negative beliefs, focusing on effort rather than attainment, encouraging growth mindsets, using stepping-stone qualifications, and offering regular feedback and clear progression paths. Increased confidence is likely to improve motivation.

Access to appropriate support is vital for all students, especially those with additional needs. Generally, there is little difference in the support needs of learners of GCSE or Level 2 Functional Skills English and Mathematics at post-16. Levels of support required can be identified through diagnostic testing, but equally important is how support can improve rapport between teachers and students, encouraging dialogue and enabling students to seek help when needed.

As well as improving engagement, real-life contexts are likely to help students grasp concepts and retain information. Delivering content through real-life contexts may prove more difficult when teaching GCSE, whereas Functional Skills qualifications are already designed to develop life skills. For GCSE, if using a more applied approach, teachers must enable students to translate their learning into the more abstract concepts they are likely to encounter in the final assessment.

Students value an understanding of what is expected of them in exams, and how to access marks. Developing this understanding also serves to increase confidence since exam anxiety can be a longstanding problem, particularly for those who have not achieved the required grade in previous exams.

Improving engagement and motivation of students can also be achieved through deployment of stimulating learning activities and tasks. As shown in Tables 1 and 2, teachers can use a range of teaching methods to maximise the effectiveness of their provision. In addition, teachers may need differentiation strategies, given that classes may consist of students working at different levels. However, research shows that teachers would like support with development of resources and implementing engaging teaching strategies.

One of the main challenges faced by teachers is deciding what content and skills to target when confronted with short timescales. Initial diagnostic testing is clearly important for planning learning pathways, but formative assessment and feedback are also valuable for both teachers and students in order to maintain engagement and to track progress.

There is great diversity in the professional backgrounds of those who deliver English and Mathematics at Level 2 post-16, whether Functional Skills or GCSE, in FE colleges or other settings. Thus, the support needs of teachers are likely to depend on the qualifications of the teacher and the setting in which they are working. English and Mathematics specialists are likely to need support with integrating content into vocational contexts and with ways to motivate and engage disaffected learners. Vocational teachers who are not English and Mathematics specialists may need support to allow them to develop a clear understanding of the rationale behind the qualifications they deliver and confidence in their own knowledge in order to offer targeted support to students.

Despite the wealth of information they collated on successful approaches and recommended actions, Higton et al. (2017) warned that there is no single "best" approach to the challenges experienced by those involved in post-16 English and Mathematics. As demonstrated, post-16 students arrive from diverse backgrounds with mixed attitudes and abilities; they frequently need additional individual support and tailored provision. Providers are also diverse and much of the support offered to students and teachers is reliant on the policies and approaches of the provider.

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Methods used by teachers to predict final A Level grades for their students

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Introduction

Prior to 2015, there was a requirement for teachers in centres in England to submit an estimated grade to the awarding organisation (AO) for all students undertaking Advanced (A) Level qualifications. This information was used as part of the evidence base for grading and for reviews of marking (Cambridge Assessment, 2013). Estimated grades are no longer collected by the AOs, but they still serve a number of purposes. Firstly, teachers are required to provide them as part of the university application process[1]. Secondly, estimated grades may be produced at several different points during an A Level course to monitor student progress, or serve as a motivational tool (Martinez, 2001). Finally, they may be used within the centre for teacher accountability purposes.

1. University admissions tutors use them to assess students' potential so that they can decide whether to make an "offer" of grades that the student needs to achieve to secure entry onto a course.