

Research and Analysis

GCSE reform in schools

The impact of GCSE reforms on students' preparedness for A level maths and English literature

ofqual

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1. Executive Summary

GCSE qualifications in England have recently been reformed. The Department for Education revised their content, with the intention of enriching the curriculum and better preparing students for future education or employment. The GCSEs in maths and English literature were in the first phase of reform¹. Key changes to the maths GCSE include a greater emphasis on problem-solving and more demanding content. In English literature, the key changes were the requirement to study a broader range of texts that are more challenging, closed book exams and compulsory assessment on unseen texts. The reformed maths and English literature GCSEs were first examined in summer 2017. This means that the cohort who sat A levels in these subjects in summer 2019 were the first to have taken the reformed GCSEs.

As the programme of GCSE and A level reform has been implemented, Ofqual has undertaken a body of work to consider and evaluate the implications of the changes to the qualifications. This report adds to this on-going work and explores teachers' views on the degree to which reformed GCSEs in maths and English literature prepare students for A level study in these subjects – thus considering one of the policy aims of reform.

Across 21 schools and colleges², 31 participants took part in recorded, semi-structured interviews in January and February 2019³. Those who participated were mainly A level maths or English literature teachers with experience in teaching A level to students who had studied the legacy GCSE and students who had studied the reformed GCSE. The interviews explored participants' perceptions of how the legacy and reformed GCSEs prepared students for A level study in the same subject. Teachers also discussed the extent to which they think the reformed GCSEs prepare students for future education and employment more widely.

Teachers were generally positive about the extent to which the reformed maths GCSE prepares students for A level. The majority commented that the reformed GCSE prepares students at least as well, if not better, than the legacy GCSE, with problem-solving skills particularly thought to be improved. Some teachers thought that algebra skills (important skills for A level study) were underdeveloped, but noted that this had also been the case for students that had studied the legacy GCSE.

For English literature, on balance they tended towards positive views, but perceptions were more mixed. Rather than discuss how well the reformed GCSE prepared students for A level in general, respondents tended to focus on specific

¹ English language was also in the first phase of reform.

² Schools and colleges are also referred to as centres throughout.

³ This means the interviews took place before the first cohort who sat the reformed GCSE exams sat their A levels.

aspects of the reformed GCSE with regards to preparedness, and they often had varying views. For example, teachers discussed the specifics of students' ability to analyse unseen texts and write essays, and the extent to which the breadth of literary texts and closed book exams at GCSE helped prepare students for A level. Of those that did comment on students' general preparedness, the majority believed that students were equally or better prepared for A level having studied the reformed GCSE.

Across both subjects, teachers thought that the reformed GCSEs equipped students with skills that will be valuable, even if they are not continuing to study the subject at A level – for example, in future employment.

These findings are set in the context of recent reforms to GCSEs and it is likely that the changes in the curriculum will take time to bed in. Given that the reformed GCSEs were first assessed in 2017, it is possible that any benefits for students will become clearer in the coming years. Indeed, teachers highlighted how they expect any advantages of the reformed GCSEs to emerge more strongly in the future.

2. Introduction

Following the desire to enrich the curriculum and better prepare students for future study and employment⁴, GCSEs have recently been reformed. English language, English literature and maths were the first GCSE subjects to be reformed, with new GCSEs in these subjects first awarded in 2017.

In this study we chose to focus on GCSE maths and GCSE English literature, but not English language. This was largely due to the entry numbers in these subjects at A level. Maths is the largest A level subject, with just under 85,000 entries in England in 2019. Of the three English subjects offered at A level (English language, English language and literature, English literature), English literature has the largest entry – 37,000 entries in England in 2019, compared to 14,000 for English language and 7,000 for English language and literature.

Changes to the maths GCSE aimed to encourage students to better manage the transition to A level maths, by introducing more demanding topics which were previously first taught at A level. Reformed maths GCSEs have a greater emphasis on problem-solving with 30% of the marks assessing problem-solving in the higher tier papers and 25% in the foundation tier papers⁵, compared to between 15% and 25% in legacy GCSEs.

The reformed GCSE in English literature was also designed to be more stretching than its predecessor, to support preparedness for A level. To achieve this, the reformed GCSE introduces a broader range of texts at a higher challenge than the legacy GCSEs. These texts include Shakespeare, 19th-century novels, Romantic poetry, and fiction or drama from the British Isles from 1914 onwards (although the exact content that students study depends on the set texts that individual schools choose). The examination is ‘closed-book’, meaning that students do not take the texts they have been preparing for into the exam (legacy GCSEs were ‘open-book’) and necessary extracts from the texts are provided within the exam paper. Students are also tested on unseen texts and there is greater emphasis on the requirement to critically compare and contrast a range of literature⁶.

As the current programme of reform has been implemented, Ofqual has undertaken a body of work to consider and evaluate the implications of the changes. This work is on-going and to date has included large scale research projects (for example,

⁴ DfE (2013) <https://www.gov.uk/government/publications/letter-from-michael-gove-regarding-key-stage-4-reforms>

⁵ For maths GCSE subject content and assessment objectives see: <https://www.gov.uk/government/publications/gcse-mathematics-subject-content-and-assessment-objectives>

⁶ For English literature GCSE subject content and assessment objectives see: <https://www.gov.uk/government/publications/gcse-english-language-and-gcse-english-literature-new-content>

considering the changes to the assessment of practical skills in A level science⁷ and the impact of modular and linear assessments at GCSE⁸), focus groups with teachers to gather feedback on the reformed qualifications, and reviews of our regulatory requirements. The current research adds to this and explores teachers' perceptions of the degree to which reformed GCSEs in maths and English literature prepare students for A levels in those subjects. This includes a consideration of the extent to which the legacy and reformed GCSEs develop students' skills in specific areas. The study also considers how the reformed GCSEs might support students' preparedness for A level as the qualifications continue to bed-in, and any impact of the reformed GCSEs beyond A level study.

While the focus of this study is therefore primarily on preparation for A level, it is important to bear in mind that GCSEs serve a number of purposes and are taken by a variety of individuals. For example, they can be taken by students aged 16 who are planning to enter training, an apprenticeship, or remain in education, and by students post-16. They must therefore be able to provide evidence of an individual's achievements in a given subject, but also provide a foundation for further study or employment. Hence, the reformed GCSEs are intended to fulfil the following purposes:⁹

- To provide evidence of students' achievements against demanding and fulfilling content
- To provide a strong foundation for further academic and vocational study and for employment
- To provide (if required) a basis for schools and colleges to be held accountable for the performance of all of their students

This research only focuses on the second of these. It is also worth bearing in mind that alongside GCSE reform, A levels have also been reformed. The first award of the new A level in English literature was in 2017, and the first (large cohort) award of the new maths A level was in summer 2019¹⁰. As such, students who sat the reformed maths GCSE in 2017 were the first (full) cohort to sit the reformed maths A level in summer 2019. For English literature the context is slightly different because the first awards of the reformed GCSE and A level qualification were in the same

⁷ <https://www.gov.uk/government/publications/practical-skills-of-a-level-science-students-study-4>

⁸ OUCEA & Ofqual (2019): https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/798047/Modular_Linear_GCSE_summary_final.pdf

⁹ Ofqual's qualification level conditions:

<https://www.gov.uk/government/publications/gcse-9-to-1-qualification-level-conditions>

¹⁰ A level maths was available after one year of study in summer 2018. The entries in summer 2018 were small and were mainly year 12 students also studying A level further maths.

year. This means that students in the first 2 cohorts sitting the reformed A level in English literature had previously sat the legacy GCSE.

3. Method

3.1 Research design

A qualitative research design was used to allow for an in-depth exploration of the issues that would not be possible using quantitative methods. Semi-structured interviews were used to allow specific topics of interest to be discussed with each school, while also allowing digressions from the interview schedule to follow up points of interest. The small-scale nature of qualitative research does not allow for a fully representative sample. However, we aimed to recruit as broad a range of schools as possible.

3.2 Recruitment

All schools and colleges which had offered A levels in maths and English literature in England in the 2016/2017 academic year were identified using the Department for Education's school and college performance tables¹¹. In order to recruit a broad range of schools and colleges, they were allocated to one of 9 categories, stratified by size (the number of students aged 16-19)¹² and average A level attainment (by A level grade). The number and type of schools recruited in each size/attainment strata are shown in Table 1 (for maths) and Table 2 (for English literature)¹³.

We invited A level teachers of English literature and maths who had experience of teaching students who had studied the legacy GCSE and the reformed GCSE in their subject. Aiming for an even spread of schools across the 9 categories, we contacted approximately 260 schools and colleges, from which 21 centres were recruited: 14 academies, 2 further education (FE) colleges, 2 independent schools, one foundation school, one community school and one voluntary aided school. Of those centres, 8 took part in interviews for both maths and English literature (so they contribute to the figures in both Table 1 and Table 2). The total number of schools recruited per subject was therefore 14 for maths and 15 for English literature. Of these schools, 9 were local (with which we held face-to-face interviews) and 12 were further afield (with which we held telephone interviews).

Table 1. The number and type of schools recruited to discuss maths by size/attainment group.

¹¹ <https://www.compare-school-performance.service.gov.uk/download-data>

The 2016/2017 data was the most recent available data at the time of sampling.

¹² Schools with up to 167 students were considered small, schools with between 168 and 282 students were considered medium, and schools with more than 282 students were considered large.

¹³ The size and attainment categories relate to the institution teaching the A level rather than the maths or English literature cohorts in particular. As such, a school in the small size category may have a large cohort in maths, or a school with average attainment grades B, A and A* may have a cohort with a lower attainment in English literature.

		Attainment (average A level grade)		
		Grades E and D	Grade C	Grades B, A and A*
Size group	Small	1 x Academy 1 x Foundation school	0	1 x Voluntary aided school
	Medium	2 x Academies	2 x Academies	2 x Academies 1 x Independent school
	Large	1 x FE college	2 x Academies	1 x Academy

Table 2. The number and type of schools recruited to discuss English literature by size/attainment group.

		Attainment (average A level grade)		
		Grades E and D	Grade C	Grades B, A and A*
Size group	Small	1 x Foundation school	1 x Academy	1 x Academy 1 x Independent school 1 x Voluntary aided school
	Medium	2 x Academies	2 x Academies 1 x Community school	1 x Academy
	Large	1 x FE college	1 x Academy 1 x FE college	1 x Academy

3.3 Participants

We interviewed 31 teachers in total across 21 schools in January and February 2019. At the point the interviews took place, the first cohorts to have studied the reformed GCSEs were partway through their second year of A level study. As such, participants were only able to base their reflections on students' skills, knowledge and behaviours in A level maths and English literature up until the time of the interview (January and February 2019), rather than on completion of the course.

For maths, we spoke to 14 teachers (7 face-to-face) and for English literature we spoke to 17 teachers (8 face-to-face). Most (29) were teachers with experience of teaching A level students who had studied the legacy GCSE and students who had studied the reformed GCSE, in either maths or English literature. They were,

therefore, well-placed to discuss the topic and compare the extent to which the legacy and reformed GCSEs prepared students for A level study. Two participants did not have this full experience. One maths teacher had taught A level to students who had studied the legacy GCSE, but not the reformed GCSE. One English literature teacher had experience in teaching A level to students who had studied the reformed GCSE, but not the legacy GCSE. However, these were senior subject leaders who had good insight into the extent to which the GCSEs they had taught prepared students for A level.

Most participants involved in the study had dual roles, whereby in addition to teaching the A level they were also heads or deputy heads of the subject (English literature = 12; maths = 9) or KS5 coordinators (English literature = 3; maths = 3). There were also 2 teachers (of maths) who were assistant principals at their schools. The dual roles held by most of the participants meant they were able to draw on this experience when responding to questions.

3.4 Interviews

The interviews were semi-structured based on the interview schedule in Appendix A. There were 3 sections of questions. Section one focused on descriptive information about the participant's role at the school and their experience. This also included a discussion of any changes in the A level cohorts that studied the legacy or reformed GCSEs (for example had the size of the cohort changed? Had entry requirements changed?).

Section two explored the degree to which a) the legacy GCSEs prepared students for A level study, and b) the reformed GCSEs prepared students for A level study. Where differences in the cohort were reported at the start of the interview, for instance if entry requirements had changed, teachers were asked to compare like-for-like students in their responses. This was done to ensure that any findings were less likely to be attributable to differences between the groups of A level students that studied the legacy and reformed GCSEs.

Section three explored perceptions of how the reformed GCSEs might prepare students for A level as the reformed GCSE continues to bed in, and how the reformed GCSE might prepare students beyond and outside of studying at A level.

Interviews were undertaken by 3 members of the Ofqual research team. Interviews were audio recorded and lasted between 18 minutes and an hour, with an average length of 35 minutes.

3.5 Data Analysis

Audio recordings of the interviews were transcribed by an external company and the transcripts were analysed by two researchers. The transcripts were initially read and re-read by both researchers to ensure familiarity with the content. The data were

organised and analysed thematically. The questions from the interview schedule guided coding and therefore covered the topics from sections two and three of the interview schedule. The findings are reported in line with these key topics, using supporting quotes from respondents.

The key topics are:

- the degree to which the reformed GCSEs in maths and English literature prepare students for A level study in these subjects
- the development of students' skills when studying the reformed or legacy GCSEs
- how preparedness for A level may change as the reformed GCSE qualifications continue to bed-in
- the impact of the reformed GCSE beyond A level study

The researchers discussed the coding and reached a consensus on the extracts relating to each topic.

4. Results

The views of the teachers are reported under the above-mentioned key areas, presented separately for maths and English literature. It is important to bear in mind that the results discuss the views of the individuals involved in this research, and do not necessarily represent the views of all maths and English literature teachers/departments. They do, however, provide a valuable insight into the implications of reform for students' preparedness for A level study.

In order to interpret the results, it is important to consider the individual school cohorts upon which the teachers were reflecting and how they might have changed over time. At the beginning of each interview we asked teachers whether the A level cohort in their centre had changed when comparing those that had studied the legacy GCSE and those that had studied the reformed GCSE. For example, we asked if the cohort changed in size, if entry requirements to the A level had changed, or if the amount of teaching time for the GCSE changed. Overall, teachers indicated that their cohorts were largely similar, suggesting that the findings are unlikely to be attributable to differences in the cohorts that studied the legacy or reformed GCSE. And, while there were some changes to the entry requirements to study A levels identified in half of the schools, there was no clear trend in either subject that the entry requirements were increasing or decreasing (8 teachers indicated that entry requirements had been lowered and 7 teachers indicated that entry requirements had increased, but this was evenly spread across maths and English literature).

4.1 Maths

4.1.1 Overall preparedness

The majority of maths teachers indicated that, overall, the reformed GCSE prepared students for the maths A level at least as well as, if not better, than the legacy GCSE. This is also reflected in teachers' descriptions about the nature of the transition between GCSE and A level. Teachers commented that students' better preparedness for A level has had positive implications, for instance, in reducing the time spent teaching lower level content at A level.

Academy

The level of content in terms of the difficulty, certainly with the higher tier, well, with both tiers actually, they've gone up [...] I think for our A level mathematicians, that is standing them in better stead to be prepared for the course than the previous GCSE.

Academy

In terms of maths, I think the old GCSE didn't prepare them well enough for A level. In the fact [it] was a step-up, a shock in knowing how to answer a question. With the old GCSE [...] it was very basic wording of the questions; whereas now it's a lot more applying their knowledge and having to understand the questions before answering it, which is exactly what the A level has always been. It doesn't tell you what to use, you have to read the question, understand it and then apply your knowledge. So, in that respect it has helped develop mathematicians rather than robots.

Foundation school

Whereas before we were often having to give students who were going on to an A level additional work to do in the summer to prepare them [...] now it just leads quite naturally from one to the other, which is good.

However, these beliefs were not universally held. A few teachers did not believe that the reformed GCSE better prepared students for A level. In some instances this was because of the changes to the reformed A level in maths. Two participants thought that despite students being more skilled following reformed GCSE study, they were still relatively underprepared for the A level because this too has been reformed.

Academy

I think the main thing when I was thinking about this was the idea that the new GCSEs would have been a great support for the old A levels but the jump is pretty much the same now as it was.

Academy

On entrance to A level, I'd say they're in a stronger position because the 9 to 1 [reformed GCSE] is covering more but they're in a weaker position because the A level they're doing has more requirements of them now.

A few teachers mentioned how students' preparedness for A level also interacts with the time that is allocated to teaching the reformed GCSE by schools and colleges. For instance, one teacher believed that a lack of time at GCSE to teach the necessary skills might limit the extent to which students are prepared for A level. In particular, they indicated that students' algebra skills might be under-developed as a result.

Academy

[In the A level] there's lots of topics where they use algebra and they know the skills that they'd use in those topics but then they were making mistakes with their basic algebra skills because they don't understand, and I don't think they've got time at GCSE to get the practice of what they can and can't do, and how algebra really is just linked to the number system.

However, another teacher noted that, because of the increased content at GCSE, some schools have increased their teaching time. In such cases, this could support the transition to A level, but only in schools where this provision is possible.

Academy

Now, in terms of content, there is a significant amount of content at GCSE and that has increased by about 25%. And as such the schools I've worked in have all added in extra time within the GCSE curriculum.

4.1.1.1 Approach to learning

Several teachers mentioned that the reformed GCSE was having a positive impact on students' approach to learning. This related in particular to their approach to mathematical problem-solving. Teachers felt that students were more resilient when responding to problem-solving questions and more likely to attempt them with confidence.

Academy

Rather than just picking up skills, it's more a question of being able to have a go at things. And that's something that already I'm beginning to notice, that they are prepared to have a go at something even if they don't know what the whole process is going to be. Which is something I think that they have [...] benefited from [in the reformed] GCSE.

Academy

I would say the old GCSE didn't lend itself so much to them being independent learners and actually liking the challenge of a problem. I find the new [reformed] GCSE pupils, they are a little bit more open to you saying 'here's a problem in front of you, go ahead and now try it' [...].

Whereas with the old [legacy] GCSE, they were a little bit more reluctant to try anything [...], with the new GCSE that's the thing that is actually making the students at A level a little bit better as well, the fact they've got more confidence to tackle abstract questions.

One teacher commented that students are more confident and independent after studying the reformed GCSE and this was having a positive impact on their teaching. In particular, they described how students are more studious now and require less teacher support.

Foundation school

We don't get as many students coming in and needing lots of extra support, they are mostly able to accept the teaching more easily. I think that is a really good effect from it [the reformed GCSE]. You do get a more studious child out of it.

4.1.2 Specific skills

All 14 teachers mentioned a specific aspect (or aspects) of the reformed maths GCSE that they thought better prepared students for the A level than the legacy GCSE did, and these are set out in turn below.

4.1.2.1 Problem-solving

We asked teachers whether the emphasis on problem-solving in the reformed GCSE better prepared students for A level study. Most teachers were particularly positive about this and thought that the emphasis on problem-solving better equipped students to apply maths in a range of contexts at A level.

Academy

Yeah, I think it's [the reformed GCSE] trying to bring in that application side. I do like the fact that it's more about getting them thinking about the maths rather than just learning lots of skills. I think the old linear spec, it had some of that in there but it also had lots of 'do this and solve this' rather than requiring them to think and be able to take different skills and apply them.

Academy

I have seen an impact on the students that take A level maths that, rather than previously [...] I would explicitly teach the kind of what I call, the part E of a question, because there's always a part E that says 'and interpret what that means' in A level. Whereas now with the reformed GCSE, they do have to really think about it [the question] in context. [...] So it definitely has had an impact. And it means that we've not had to spend as much time [teaching this], and students are better at it for A level.

However, there was some frustration with the assessment of problem-solving, with a few teachers commenting that the problems in the assessments were not always reflective of real-life problems or did not assess the application of maths, but rather memory for how to perform maths.

Academy

And there are a lot of basic questions in all the exam spec [...] 'can you remember how to solve this'. That's a memory thing: [...] It's not solving a problem. And the example I did with year 11 this morning was 'John had a record that's 8 and one eighth inch long'. [...] you're making up a problem trying to base it around an idea that isn't necessarily true.

Two teachers also believed that there were no differences in the degree to which problem solving in the reformed GCSE prepared students for A level study, when compared to the legacy GCSE.

Academy

I don't think there's been a huge change in all honesty. I think in theory it's supposed to be a lot more problem-solving and the exam itself does stretch the more able students. But I don't really feel like it's a huge huge difference. Maybe slightly, but [not] in terms of their preparedness for A level.

4.1.2.2 Algebra

Teachers often talked about students' algebra skills unprompted. This is likely because, as noted by respondents, a large proportion of the A level relies on strong algebra skills.

Academy

The main content of the A level is algebra, and obviously if you're no good at algebra there is no point doing the A level. And I think actually because of the content of the GCSE it now relies on the pupils having stronger levels of algebra. Like I said a moment ago the topic about equations and tangents and circles, if you're going to be successful at that topic your algebra needs to be fantastic inside out really.

The degree to which respondents thought that the reformed GCSE equipped students with algebra skills for A level study was mixed. A couple of teachers thought that students' algebra was better.

Academy

I would say generally as mathematicians they are better. I think their algebra skills are better than they were before.

However, while this sounds positive, the majority of teachers thought that students' algebra skills were still insufficient for A level.

Academy

We still have students whose algebra isn't quite up to it really. And they need quite a lot of reinforcement of that algebra in the early stages, but they really shouldn't need it.

This was not necessarily a result of the reforms though, and respondents noted that the same issues were also present for those who studied the legacy GCSEs.

Independent school

Kids coming through with A* to G, their algebra was their biggest problem with A level. It still is [...] We've always said A level students [who studied legacy or reformed GCSE maths] lack algebra skills, pure algebra for A level, which is usually what lets them down.

Academy

You still have that gap of people getting A [in the legacy GCSE] or 7 [in the reformed GCSE] and their algebra isn't strong enough.

One teacher explained why they thought that students' algebra skills might be limited when starting their A level study. They thought that whilst at GCSE algebra is generally assessed in isolation, at A level this is much less the case. As such, at A level, access to the wider course is dependent on algebra skills.

Academy

I think the other big factor is that even now [in the reformed GCSE] a lot of your algebra is still a case of once you've applied the skill, that's it, you've done it, whereas in A level it's not going to be a question, it's going to be the very small opening part of the question. If you can't do that you're going to struggle to access the rest of the marks. In places, even a small slip can be very costly.

Another teacher felt that students' algebra skills were weaker because of the increased focus on problem-solving in the reformed GCSE.

Independent school

[Algebra skills] possibly got worse with the new 9 to 1 [reformed GCSE] because the emphasis on the pure algebra isn't there so much; the emphasis is massively on problem-solving.

4.1.2.3 Other maths skills

We asked teachers if there were specific skills that the reformed GCSE equips students with that prepares them for A level study. Most teachers highlighted specific areas, beyond problem-solving and algebra. These included proof, function notation, composite functions, transformation of functions, geometry, assumptions and patterns and sequencing. For instance:

Academy

They've got enough knowledge of all of the different areas of maths. [...] in terms of them learning problem-solving and reasoning and rigour and proof and things like that, it's really good.

Academy

[Talking about patterns and sequencing] Some of my pupils, even in the lesson I taught last week, were saying 'well, why do you need to do that,

the pattern's obvious, I can see the pattern' – and they could see that and recognise it. But [...] there's no way the children on the old [legacy] spec would have recognised and seen it because their work with more advanced sequences wouldn't have been at the same level.

Several teachers indicated that this better preparedness had positive implications for their teaching at A level. They explained that because students were more confident and familiar with content that had not previously been taught in the legacy GCSE, this reduced the time required at A level to teach these skills.

Voluntary aided school

Concerns and assumptions, they now get covered in year 11. Which when students get to year 13 [...] they're a lot more confident with it and we don't have to spend as much time going over the more basic aspects of it because they've already covered it 2 years earlier. Whereas before, they wouldn't have. [...] Because the new [reformed] GCSE has got quite a lot more pure content in, I do feel better equipped in the pure aspect of the course when they start the A level.

4.1.3 Future impact of reformed GCSE maths

4.1.3.1 Preparedness for A level

While respondents generally thought that the reformed GCSE better prepared students for A level, they thought that any benefits would be realised further over the next few years as the new GCSE becomes more familiar to teachers and students. Further, a few teachers explained that they have a whole school approach to teaching that is designed to better prepare students for the GCSE over the course of secondary school.

Academy

We are now [...] trying to use that key stage 3 time to broaden their ability to work their way through a problem, and to think logically and mathematically, not just follow procedures. So, that's what a big focus of our key stage 3 curriculum is now, to enable and to progress through to the GCSE. So I'm hoping that will help.

Academy

I think it'll have more impact as time goes on. It's like you [referring to another teacher] said about the year 12s, they're better than the year 13s because they've been doing [the new GCSE] since year 9. And now in maths, it's like from year 7 we're thinking about the GCSE that they're going to be taking. And we know that we need to teach them problem-solving and reasoning from year 7.

4.1.3.2 Impact beyond maths A level

Of those who commented, most teachers felt that the reformed GCSE was having positive implications beyond studying maths at A level. For instance, for those not going on to the A level, problem-solving skills were thought to be valuable for general life skills, the workplace and further education.

Academy

I think it's fair to say there are a lot more transferable skills in the 9 to 1 GCSE than there were in the A* to G so any of those is obviously going to be something that is sought after.

Independent school

If you take A level and university maths out of this I think it is hugely [helpful for their future education or employment]. And, the idea of trying to get kids to solve a problem rather than regurgitate a solution I suspect with industry and the real world it's really important and should be really good.

Several teachers also thought that the reformed GCSE would support students studying other subjects with mathematical content.

Academy

So even students who don't do maths A level will be better prepared for studying subjects that require some maths.

However, 3 participants thought that the mathematical skills required in other A levels were not supported by the reformed GCSE.

Academy

The skills between GCSE maths and the other A levels don't necessarily connect. Because the statistical skills you need for geography or psychology are not really assessed at GCSE. So, they're picking kids up with a basic maths qualification, but then having to re-train them.

A few teachers also had concerns regarding weaker students. They thought that the maths GCSE would not prepare these students for life beyond education, and instead focused on the skills that are required to study the A level, such as algebra.

Academy

Actually for some of our very weak students we're not preparing them for being safe and secure out in the world. [...] Because we're focusing our time on skills for the GCSE rather than 'can they make sure that if someone tells them they're going to give them a 20% discount, or commission of this much', that they know what these words mean, never mind anything else. [...].

This view was not shared by all teachers though, and 4 other teachers indicated that it is not only the maths relevant skills that are important, but the cognitive capacity and ability to process complex information that is beneficial to all students outside of academia.

Academy

But if you're not looking to go to do a [university] degree at maths level, the new GCSE gives children life skills that they will need in whatever situation. Now, a child at GCSE learning how to expand brackets and simplify at the end, while it may not directly have any sort of bearing on their lives, what they will have is they'll have a set of skills where they can apply problem solving to a situation they're given at work.

4.1.4 Summary of findings: maths

Overall, teachers were broadly positive about the extent to which the reformed GCSE prepared students for A level, with the majority commenting that students were at least as well or better prepared having studied the reformed GCSE. This had positive implications for teachers, as less teaching time was required to cover more basic aspects of the maths content at A level. Teachers also generally felt that the emphasis on problem-solving in the reformed GCSE was beneficial to the application of maths to a range of contexts at A level and beyond. For example, problem-solving

style thinking was thought to have encouraged higher order thinking and resilience in the face of difficult questions.

Teachers believed that algebra skills were key to A level study, but their views about the extent to which the reformed GCSE sufficiently developed these skills were mixed. A minority of teachers believed that students who had studied the reformed GCSE had better algebra skills than those who had studied the legacy GCSE. However, the majority believed that algebra skills were underdeveloped by the reformed GCSE. Teachers also noted, however, that this was the case for students who had studied the legacy GCSE and did not, therefore, consider this to be a result of reform.

4.2 English literature

4.2.1 Overall preparedness

The views of English teachers were not clear cut when asked how prepared students were for studying A level after taking the reformed English literature GCSE.

Approximately a third of teachers did not directly comment on the general preparedness of their students when asked about this (rather they commented on particular aspects of preparedness). Of the teachers that did comment, almost all referred to how students were either equally or better prepared than those who had taken the legacy GCSE in preparation for A level. However, in many cases teachers (including those who thought the GCSE prepared students well for A level) highlighted strengths and weaknesses of the GCSE, especially when discussing particular aspects of it. These mixed views are presented here.

Of the teachers who mentioned the preparedness of the students, approximately half expressed an improvement in overall preparedness for A level.

General further education college

The new ones are much better than the old ones, for sure, based on the skills that I'm seeing the students coming with.

Independent school

I think now there is less of a jump between GCSE lit and A level lit [...] what used to be the case is students would have spent 2 years studying a GCSE at school and we'd do a text and they can't apply anything to it [...], now it's like a step up, the new lit spec, which is useful.

Three teachers expressed the view that students were equally prepared for A level regardless of whether they had studied the reformed or legacy GCSE.

Foundation school

I think they [cohorts who studied the legacy and reformed GCSE] are both equally prepared for A level.

Academy

We haven't seen a marked improvement in the new GCSEs in terms of when they come to A level.

A couple of teachers were unsure when commenting on how prepared they thought their students were with the reformed GCSE, and their overall views seemed unclear or contradictory because of this. For instance, in the example below, this teacher thought that some skills were less developed after reformed GCSE study, but in another instance mentioned that the reformed GCSE has helped prepare students for A level.

Academy

What we're finding is their [reformed GCSE students] analysis skills aren't as sharp, they're not as perceptive [...] their vocabulary isn't developed enough or they haven't got that wider vocabulary to understand subtleties of language. [...]

[...] It [the reformed GCSE] definitely has helped prepare them in that sense, sharpened their analysis, and helps those who just get onto the course.

Some teachers gave reasons for why they thought the reformed GCSE was good preparation for A level, but then also reflected on components or skills of the reformed GCSE where students were less strong.

4.2.1.1 Approach to learning

Teachers spoke about students' mind-sets and approaches to learning that affected their preparedness for A level. In particular, teachers compared the independence of students between the legacy and reformed GCSEs. Approximately half of the

teachers who commented on confidence and/or independence referred to how students who had studied the reformed GCSE were more independent or confident, particularly when engaging with literary texts and/or undertaking revision.

Community school

The biggest job for A level is that increased independence. I think the new GCSEs prepare students for that independence better and more effectively because they have to develop their own techniques and their own resources and their own revision materials; whereas I think previously, I probably handed out quite a lot of revision materials because I could guide them a little bit more clearly.

General further education college

[At A level] they want to see students confidently engaging with the text [...] I think since this new GCSE literature came into force, students are much more confident in that [...] they're not put off by having to read something twice or 3 times. They will ponder possible meanings and not worry about making a mistake. They will use each other as well to get to a conclusion. I'm finding now after this spec change [that students] are more independent.

However, there were also 4 teachers who did not share this view. They commented on how students who had studied the reformed GCSE lacked confidence at A level and/or were reluctant to discuss literary texts following reformed GCSE study. One teacher, in particular, felt this was because students did not have the opportunity to practise this while studying for the reformed GCSE.

General further education college

Reacting to unseen poetry is a significant part of the A level, and it's always been, you know, poetry I think is always a genre that students perhaps find more challenging. [...] I've noticed more of a struggle with that, more of a kind of a reluctance to engage, a kind of lack of confidence.

Voluntary aided school

I think it's probably to do with being able to partake in group discussions and articulate a viewpoint and interpretations of texts, which we definitely did more of under the old spec. [...] We get A level students who are not

really willing to speak or put their hand up or contribute because they're not used to sharing their view on a text really. And yet at A level it's one of the most important factors.

4.2.2 Content and features

All the teachers discussed the changes to the content and features of the reformed GCSE and the potential implications of this in preparing students for A level. These discussions focused on (but were not limited to) breadth of learning, essay writing, closed book exams, and unseen texts. In general, views were mixed, and we discuss these for each topic in turn below.

4.2.2.1 Breadth of learning

Breadth of learning refers to the span of topics that students study as part of their GCSE. When referring to the breadth of learning in the reformed GCSE, this encompassed views about the breadth of types of literature and/or the breadth of authors, and whether these were narrower or wider.

Several teachers felt positively about the degree to which the breadth of different types of literature available in the reformed GCSE prepared students for A level study. For example, a teacher felt more positive about the wider range of non-fiction texts.

Academy

I feel like the content that they have to cover now is probably better in terms of breadth for what they have to do at A level because they get a wider variety of literature in terms of the non-fiction literary kinds of texts that I don't think they did before.

However, just as many teachers felt that there seems to be a narrower and less diverse range of literature and authors for them to teach in comparison to the legacy GCSE.

General further education college

When the new spec came into force, I think the worry was that it was all white, middle class, British men. And potentially in some areas of the UK we have a very diverse student base.

Voluntary aided school

I think there's a lot of similarities in the texts, so it feels like you're teaching the same themes a lot of the time. There's lots of death and suicide and quite miserable stuff.

However, another teacher highlighted that a narrower breadth of literature in the reformed GCSE does not necessarily have negative implications for preparedness for A level study. Rather, they commented on how the texts in the reformed GCSE align with those studied at A level.

Academy

We're not allowed to study text from other cultures anymore and that was a significant impact, but then neither does the A level really. So that doesn't necessarily limit students' ability to access an A level.

4.2.2.2 Essay writing

Of those that commented on essay writing, 4 teachers thought that students' essay writing skills had improved, which had a positive impact on their approach to writing essays at A level. For example, they felt that students had improved the structure of their writing and their analysis of the texts. According to the teachers this was clearly because the reformed GCSE offers more opportunities to develop these skills.

General further education college

Essay writing as well, students are now more familiar with what an essay needs to do, so the introduction, the main body, a conclusion. So the overall shape of the essays and the analysis that students write with has improved.

Academy

The reformed GCSEs, on the positive side, are more rigorous [...] and there is more of an opportunity to write more developed answers of literature and to think about whole texts and to [...] be able to develop a line of argument. Which is everything that's needed at A level anyway. It [the reformed GCSE] definitely has helped prepare them in that sense, sharpened their analysis.

However, just as many teachers thought that there were few opportunities to practise essay writing skills with the reformed GCSE.

Foundation school

I think it is very hard now for students who have to do their A level coursework, which is in year 13, their 2,500 to 3,000 word essay, when there is no coursework or controlled assessments at GCSE anymore. The longest piece of writing they have done [...] is 55 minutes in an exam on Shakespeare. So, in that sense I think that their skills of extended writing have not been developed at all in the new [reformed] GCSE.

Academy

We tend to find the students typically struggle with how to structure an essay at A level, particularly one that deals with a lot of text because they don't have to do that at GCSE. So I think that they aren't as mature in their writing style [now] because they are, as I said earlier, so focused on making sure they hit the criteria and do everything they need to do that their writing is quite immature.

4.2.2.3 Closed book exams

In the reformed English literature GCSE, all assessments are closed book, whereby students are not allowed to take copies of texts they have studied into the exams. This is different to the reformed A level and the legacy GCSEs, where the assessments are/were open book. Teachers discussed the different approaches and suggested that their A level students have to learn how to make effective use of texts in an open book exam, as they have not had the opportunity to do this when taking the reformed GCSE.

Academy

My biggest issue with the reformed GCSE is the fact that they're closed books. And A level is open text. So it's a little bit counterproductive. So we teach them all about not using a book. And I know they don't get a chance to really use the text in the exam but it is there as a bit of a safety net if they need them for something to check.

Community school

Obviously because the A level exams are open book and the new reformed [GCSEs] are closed book, students don't really know how to work with their texts in the exam. That's something we're having to teach them so they don't end up spending too long looking through the text or they don't, you know, they're using it more as a checker rather than an actual finder.

Two teachers thought that closed book exams could support students' understanding of the texts by changing their approach to revision. This was driven by an expectation to know the texts well. Teachers commented that having this stronger revision technique is a beneficial skill that students can transfer across to their A level studies.

Academy

I mean it does teach them to be less reliant on a book. It makes them [...] own the text. They have to know that text inside out [...]. I think actually for the more able that's a positive thing for A level. Because they don't have time to be able to use their texts at A level.

Community school

It's the revision skills actually, because English is notoriously difficult to revise for students, they find it really challenging. But I think the idea of, [...] you revise your quotations and you look for your links and you revise clusters of information, I think that has been really beneficial [...] we're starting to see students coming into A level who have an awareness of what revision methods work for them and how they can apply it to their A level literature. And I think that's something that perhaps we didn't have in quite the same way before.

4.2.2.4 Unseen texts

In general, teachers were positive about the inclusion of unseen texts in the reformed GCSE exams. While unseen texts were also a feature of the legacy GCSE (in English literature and English language), several teachers thought this was now more demanding, and that this supports the transition to A level.

Community school

I think the additional challenge of the unseen element in the reform, because obviously in the pre-reformed [GCSE] it was just one poem. They had to write a short essay too, whereas this current one [the reformed GCSE], it's a comparison, it's a much higher level of challenge, it's a much higher level of demand. I think that is preparing them well for the A level in terms of the rigour of the exam itself.

Academy

There's probably more unseen in the reformed GCSE than there is in the A level [...] So actually [students] who take the A level from the reformed GCSE they are very prepared for unseen [texts], for example.

4.2.3 Future impact of reformed English literature GCSE

4.2.3.1 Preparedness for A level

While views were mixed regarding the extent to which elements of the reformed GCSE better prepares students for A level, in general, teachers thought that this might change over time as the reformed GCSE becomes more familiar to teachers. Teachers also referred to the transition to A level being facilitated by curriculum changes from key stage 3 onwards.

Community school

I'm hoping that as we become more confident teaching the GCSE it will become less drilled and we'll have more students who have a passion for the subject who will then take it on to A level. For me I think the literature prepares students very well.

Academy

I hope that the changes that we've made to our key stage 3 curriculum, transitioning up to Key Stage 4, will hopefully lay the foundations and knowledge for students at Key Stage 5, to see the literary journey and literary history of the text that they study.

4.2.3.2 Impact beyond the English literature A level

Some teachers commented on the degree to which the reformed GCSE English literature might benefit students beyond A level, in terms of further education or employment. These views varied. For example, a couple of teachers commented on how the reformed GCSE sets good foundations for students becoming stronger writers, pointing out that this is a skill that may be beneficial for further education as well as for employment.

Community school

I think that the increased prestige of accuracy is going to support them. Because, I think the challenges with literacy that we've been facing, a lot of students think they can get away with not spelling things correctly or not being grammatically accurate and actually obviously they can't, so that's really benefitting in terms of preparing them for employment or future education.

General further education college

They tend to be much more effective writers when they come and spend 2 years again tweaking that, making them even better, so when they leave it prepares them for university exams. So there will be some coursework at university, but it helps them with exams particularly and unseen extracts probably continue in university as well. By which time they would have had a good 4/5 years of experience of looking at that. So I think they're going to make a positive impact, actually.

A couple of other teachers reflected on how the reformed GCSE would prepare students for degree level study, suggesting that the GCSE does not align well with the requirements for this, particularly in appreciating texts within the wider context. However, the extent to which the GCSE – a qualification that is designed to be accessible to the whole 16-year-old cohort – should do this is perhaps questionable.

Academy

Because as you go on to even do a degree level, you're study[ing an] individual text for a seminar, which is part of a much larger body of work, so I think it's important that students appreciate that throughout. I don't think GCSE really lends itself to that.

4.2.4 Summary of findings: English literature

Views regarding the degree to which the reformed English literature GCSE prepared students for A level study were less clear cut than for maths. A third of teachers did not directly comment on general preparedness of reformed GCSE students going on to do A level, instead focusing on specific aspects of the reformed GCSE. Those who did comment on preparedness were generally positive or neutral. Almost all of the teachers felt that the reformed GCSE prepares students for A level either similarly to or better than the legacy GCSE.

However, the views of teachers when discussing content and specific features of the reformed GCSE were somewhat mixed and more complex. The higher challenge posed by unseen texts in the reformed GCSE, for example, was viewed positively in better preparing students for A level study. On the other hand, when discussing closed book exams in the reformed GCSE, the disparity with A level (which is open book) was highlighted. Nevertheless, teachers also acknowledged how, in literature, students' revision techniques and depth of learning could benefit from closed book exams.

Four teachers thought that students' essay writing skills were appropriate for A level studies, with just as many teachers highlighting concern that students were still not well prepared for essay writing at A level. In this case, however, it is worth highlighting that some of the teachers that commented on weak essay writing did not explicitly state that this was as a result of the reformed GCSE in comparison to the legacy GCSE.

There were also mixed views on the breadth of learning for students. While some teachers thought there was greater breadth of types of literature in the reformed GCSE, others felt that there was less breadth of literature and authors. One teacher also highlighted the notion that breadth of learning in the reformed GCSE does not necessarily impact on preparation for the A level.

Views on students' approaches to learning – independence and/or confidence when discussing or engaging with texts in the reformed GCSE – were also mixed, with some teachers reporting that students were more independent and confident and others reporting the opposite.

5. Summary and discussion

The aim of this study was to explore A level teachers' views about the degree to which the reformed GCSEs in maths and English literature prepare students for A level study in these subjects.

For maths, teachers were broadly positive, with the majority commenting that students were at least as well, if not better prepared for A level, having studied the reformed GCSE. Teachers felt that students were better at problem-solving and applying maths in a range of contexts, and this had positive implications for students' independence and resilience to answer difficult questions. Teachers did note, however, that the algebra skills needed for A level were underdeveloped, but that this had also been the case for students who had studied the legacy GCSE. This was therefore not generally considered to be a consequence of reform.

English literature findings were more mixed, although on balance teachers' views tended to be slightly more positive about the reformed GCSEs. Of those that commented on general preparedness, almost all the teachers felt that students were prepared as well if not better for A level study. Teachers, however, had mixed views about particular aspects of the reformed GCSE. Teachers were generally positive, though with exceptions about students' ability to analyse unseen texts, the benefits of closed-book exams and, to an extent, students' essay writing skills. There were mixed views in particular regarding the breadth of literature and authors available in the reformed GCSE, with some commenting on the greater breadth of types of literature and others commenting on the narrow selection of texts available. Some teachers also note that students' essay writing skills were not sufficient for A level studies, though it is unclear to which extent this is due to the reform or whether the same applied to the legacy GCSE.

Generally, both the maths and English literature teachers felt positive about students' preparedness for A level in the coming years. They thought that students in future years would be better prepared as teachers become more confident with the reformed GCSE content and because of a whole school approach in preparing students for the GCSE (preparing cohorts from key stage 3 onwards). For both subjects, teachers generally thought that the reformed GCSE would equip students with useful skills beyond A level study, for higher education or employment.

While these findings provide valuable insight into the implications of GCSE reform for students' preparedness for A level, there are some limitations to bear in mind. First, the interviews were conducted in January and February 2019, meaning that the first A level cohort to have sat the reformed GCSEs were only partway through their course. Further views on the reformed GCSEs are only based on one cohort of A level students and therefore not as established as those for legacy GCSEs. Additionally, we only spoke to a small number of A level maths and English literature teachers representing just 1% of schools in England that offer A levels. As such, the

findings reflect views based on the individual circumstances of the schools involved and are not necessarily representative of the wider population of schools.

Despite this, the overall findings from our interviews are supported by a much larger number of survey responses (from 2,642 teachers) recently captured by Teacher Tapp¹⁴. In this survey, the majority of teachers indicated that they thought that the reformed GCSE in their subject prepared students for A level study as well, if not better, than the legacy GCSE. Broken down by subject, proportionately more maths than English¹⁵ teachers thought that the reformed GCSE better prepared students (76% and 50%, respectively) – and more English than maths teachers thought that students were as prepared (18% and 13%, respectively). More maths teachers (68%) than English teachers (60%) liked the new GCSE in their subject. This is not surprising given the mixed views of English teachers, highlighting strengths and weaknesses of particular aspects of the reformed GCSE, compared to the generally more positive views of maths teachers.

Teachers involved in our study were from a range of school types based on their size and average A level attainment. Analysis of teachers' views revealed that no particular school size or attainment category were more likely to hold a certain view over others. Rather, the views were more general and in places referred to differences influenced by the school's individual circumstances and context. It is inevitable during reform that the experience of individual schools and colleges will vary, and that seems to be borne out here.

The consideration of school-specific differences may be particularly important for understanding the views expressed by the English literature teachers in the study. In English literature, there is naturally more variation between schools in the literature that students study, because it depends on the set texts that each school (or teacher) decides to teach. While it is unlikely this variation in texts accounts for all of the variation in views expressed here, this may partly explain why English literature teachers expressed more mixed views than maths teachers.

It is also important to consider the findings in the context of GCSE and A level reform. For maths, the new A level was deliberately introduced 2 years after the introduction of the new GCSE, so that students in the first cohort of the reformed A level had also studied the reformed GCSE. In contrast, for English literature, the new GCSE was introduced at the same time as the new A level, and therefore students in the first 2 years of the new A level had studied the legacy GCSE. As such, English literature teachers were able to compare students who had studied the legacy and reformed GCSEs and continued to the reformed A level, whereas maths teachers

¹⁴ <https://teachertapp.co.uk/genies-gcses-sats-booster-revision/>

¹⁵Note that English language and English literature was collapsed together as 'English'.

could only compare students moving from legacy GCSEs to legacy A levels with those moving from reformed GCSEs to reformed A levels.

As with any reforms, it is likely that the changes in the curriculum and assessments will take time to bed in. Indeed, we know that in the first few years qualifications are awarded there is often a small dip in performance, known as the Sawtooth Effect¹⁶. This usually lasts around 3 years, during which time overall performance gradually improves. The degree of preparedness that the reformed GCSEs offer for A level will therefore likely change in the next few years. This supports what teachers told us about how, generally, they expected any advantages of the reformed GCSEs to emerge more strongly over the coming years across both subjects.

¹⁶ <https://www.gov.uk/government/publications/investigation-into-the-sawtooth-effect-in-gcses-as-and-a-levels>

6. Appendix A – Interview Schedule

	Prompts
Section 1	<p>Thank you for agreeing to be a part of this research.</p> <p>We are interested in how the pre-reformed and reformed GCSEs have prepared students for their A level studies. We're focusing on A level but are also interested in any reflections you may have on those studying AS and those studying maths and further maths. We're interested in your perceptions (which means there are no right or wrong answers).</p> <p>Before we start, it would be really useful for us to get a bit of background information about yourself.</p> <ol style="list-style-type: none"> 1. What is your role in the maths/English department at this school and how long have you been in this role/been teaching at this school? 2. Have you taught A level students who have studied both pre-reform (A* to G) and reformed (9 to 1) GCSEs? 3. How many A level classes do you teach (nowadays) and approximately how many students do you have in your classes? Does this differ to when you taught students who studied the pre-reform GCSE? If so, how? 4. What are the teaching hours per class per week, and how is this split? Has this changed in comparison to when teaching students who studied the pre-reform GCSE? If so, how? 5. Have you taught any students who have completed the A level in one year? 6. Although we won't be asking you about specific changes to the GCSE, but rather how this has impacted the students coming to study at A level, are you aware of the changes that have been made in the GCSE reform in your subjects? <p>We are interested in the degree to which GCSE qualifications prepare students to study for A levels in your subject(s). It would be really useful if you could include all of your experience of teaching, so even for those who are only part way through the course (i.e. teaching starting in September 2017 and 2018).</p> <ol style="list-style-type: none"> 7. To get an idea about the cohort taking the A levels, could you tell me if the entry requirements to start studying for the A level has changed for students who have studied the pre-reformed A* to G and reformed 9 to 1 GCSE? <p><i>If entry requirements have changed then ask interviewee to think about like for like students when making comparisons across pre-reformed and reformed GCSEs.</i></p>
Section 2	<p>Thinking first about the pre-reformed A* to G GCSE in your subject:</p> <p>For these next questions, I'll ask you to think about the degree to which the pre-reformed A* to G GCSE, and the reformed 9 to 1 GCSE in your subject prepares students for A level study in your subject. It may feel a little repetitive but we hope to be able to compare the two. We're interested in your general perceptions but recognise that all students will be different and some may have a higher ability than others.</p>

8. How well do you think the pre-reformed A* to G GCSE prepared students for A level study. For instance, are there specific skills that the pre-reformed GCSE equipped students with that were useful in preparing students for A level study in your subject?
9. Could you explain why these skills/things helped prepare students, for instance in terms of teaching approach and student engagement and learning?
10. Did you use a particular method or means to identify or measure these skills?
11. At what point were you able to determine whether the students did have these skills?
12. In addition to the skills you have mentioned, were there any other ways that the pre-reformed GCSE prepared students for A level study in your subject?

I'll now ask you to think about the reformed 9 to 1 GCSE in your subject.

Please comment on any comparisons with the pre-reform GCSEs where you can.

If entry requirements have changed then please think about like for like students when making comparisons across pre-reformed and reformed GCSEs.

13. How well do you think the reformed 9 to 1 GCSE prepared students for A level study. For instance, are there specific skills that the reformed GCSE equips students with that are useful in preparing students for A level study in your subject?

14. If not already mentioned: to maths teachers

The reformed GCSE in maths has more emphasis on reasoning and problem-solving and has more demanding content. What are your thoughts on the impact these changes have had on equipping students with specific skills for A level study?

15. If not already mentioned: to English literature teachers

The reformed GCSE in English literature welcomes a broader range of texts at a higher challenge than the pre-reformed GCSEs, has a closed book exam (where students are not allowed to bring texts in to the exam) and are assessed on unseen texts. What are your thoughts on the impact these changes have had on equipping students with specific skills for A level study?

16. Could you explain why these skills/things helped prepare students, for instance in terms of teaching approach and student engagement and learning?
17. Do you use a particular method or means to identify or measure these skills?
18. At what point are you able to determine whether the students do have these skills?
19. In addition to the skills you have mentioned, are there any other ways that the reformed GCSE prepares students for A level study in your subject?

	<p>-----</p> <p>20. Thinking of the cohort that study for the A level in your subject, are there any other differences between the cohort who have studied pre-reform and reformed GCSE subjects? (e.g ability, skills, confidence, engagement)</p> <p>a) <i>If yes</i>, please explain these differences.</p>
<p>Section 3</p>	<p>I'll now ask you some questions about the future impact of the reformed GCSEs.</p> <p>21. Do you see the impact that the reformed GCSE in your subject has on your students changing over the next few years?</p> <p>a) <i>If yes</i>. In what ways?</p> <p>22. What are your thoughts on how the reformed GCSEs might prepare students beyond A levels (e.g. employment, further study)?</p>



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