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The Department of Education

University of York
Maths and English Tutoring programme

Evaluation report

Sally Hancock

February 2019

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Executive summary

- The tutoring programme and related evaluation were established as part of the University of York's 2017/18 Access Agreement, prepared for the Office for Fair Access (OFFA). The tutoring programme sought to support the attainment of pupils who would not otherwise have access to tutoring. Two schools in York participated in the programme. The analysis in this report is based on the attainment data and survey responses of 24 pupils, parent and guardian surveys recording pupils' demographic and family circumstances, interviews with senior and subject teaching staff, and survey responses from 14 university student tutors.
- Although each school employed shared eligibility criteria when recruiting for the tutoring programme, there are noteworthy demographic differences between the two sets of participating pupils. These differences indicate that the pupils recruited by School A face greater socio-economic disadvantage than those recruited at School B.
- For the majority of pupils, tutoring enhanced self-rated confidence in academic skills and subject knowledge. For around half of the pupils, tutoring was associated with an increase in knowledge of higher education. Around one-third of pupils who stated they did not intend to enter higher education shifted their position to 'undecided' at the point of the post-survey. Almost ninety per cent of the pupils stated that they would recommend the tutoring programme to others.
- The small number of pupils stating that they would not recommend the programme cited the 'awkwardness' of the one to one setting, and the challenge of meeting new people. When prompted, the vast majority of pupils did not offer suggestions for improving the programme. A small number of individual suggestions included greater use of exam questions and ensuring quiet spaces for study.
- The analysis of pupils' attainment is limited by the fact that only one school was able to provide data on this. From these data, it is clear that those receiving Maths tuition gained a higher average grade in their GCSEs than those that did not (5; a strong pass, compared to 4 for those without tuition). The tutored pupils also saw their grade increase by 1 level on average since their mock exam. For English Language and Literature, the results are less conclusive. Nevertheless, in both Language and Literature, the tutored pupils saw their grades increase by 1 level and completed their GCSEs with an average grade 4 (a standard pass).
- In the absence of a randomised control group or other counterfactual, it would be premature at this stage to say whether the increase of one grade observed in all of our tutored pupils might have happened in any case. It is certainly positive that the average trend for those receiving tutoring is of enhanced attainment, and that the average result is at least a standard pass in all subject areas. Put simply, the tutoring intervention does

not imply any negative consequences for attainment. With the cooperation of participating schools, achieving a more extensive analysis of the association with attainment is essential as the programme is moves into 2018/19.

- In contrast to the pupil sample, student volunteers originated from relatively privileged socio-economic backgrounds. One quarter were privately educated, three-quarters had a graduate parent, and all parents were employed in managerial and professional occupations.
- The majority of student volunteers found tutoring to be a positive, enriching and rewarding experience. Half stated that they would personally participate in the programme again, and all of the volunteer tutors stated that they would recommend the programme to other students at the University of York.
- The vast majority of tutor volunteers stated they were extremely or somewhat well supported when working in the schools. The small number of more critical comments referred to isolated miscommunications - such as a tutor learning only after arrival at the school that a pupil was not in attendance or a confusion over material delivered in class.
- In terms of training, student tutors suggested that they would have benefitted from: more explicit information on the curriculum and exam board requirements; being able to see pupil work in advance of the tutoring; extending the amount of time for practice tutoring during training; and, covering more pedagogical ideas for engaging shy and less confident pupils.
- All of the teachers interviewed spoke very positively of the programme and highlighted multiple ways in which they thought it had supported both pupils and the school during the approach to the GCSE exams. Examples of this include elevating the status of Maths and English in schools, boosting pupil confidence, and enhancing school relations with parents. Teachers were less sure that pupils' post-school plans had changed as a result of the tutoring. All teachers believed that attainment was positively affected by the tutoring and expected this to be evident from the GCSE results.
- The teacher interviews brought to light a small of number of challenges. Several teachers reflected on the difficulty of quantifying the effect of the tutoring by itself, since many pupils were also engaged in other interventions. Logistical challenges were noted but no single solution to these emerged. In consensus with the pupil and student tutor feedback, several teachers suggested that more could be done to support and develop the relationship between pupils and tutors in future years.
- Teachers' suggestions for future iterations of the programme included: enabling pupils and tutors to meet earlier; inviting student tutors into a subject lesson before tutoring begins; ensuring that each tutor was observed while tutoring at least once; enhanced CRB

checks to enable tutors and pupils to work together privately; and, extending the programme to either begin earlier (in Year 10) or conclude nearer to the GCSE exams. Additionally, teachers asked about the possibility of including other GCSE subjects and offering distinct English language and English literature tutoring.

- Teachers were open to the possibility of small group tutoring in addition to the one to one model as a means to reach more pupils – indeed, one teacher believed that for certain pupils, this approach might be preferable.

1. Introduction

1.1 The Maths and English Tutoring programme

The tutoring programme and related evaluation were established as part of the University of York's 2017/18 Access Agreement, prepared for the Office for Fair Access (OFFA). The tutoring programme sought to support the attainment of pupils who would not otherwise have access to tutoring. Two schools in York participated in the programme, and each identified up to 20 Pupil Premium pupils across Key Stage 4 Maths and English. By focusing on attainment in GCSE Maths and English, the tutoring programme aimed to help broaden the educational and vocational opportunities of these pupils after they leave school.

Why tutoring?

In his landmark paper, Bloom (1984) noted that one to one tutoring could move class marks up by two standard deviations – a considerable effect. A substantive body of empirical research has since confirmed this potential (Dietrichson et al. 2017). A review of evidence published by the Education Endowment Foundation (EEF) in 2017 suggested that one to one tuition can on average accelerate learning by five additional months' progress (EEF 2017).

Families with sufficient economic resources have taken advantage of these observations. It is estimated that one quarter of all state school pupils in the UK now have a private tutor, while in London, almost half of all state school pupils do (Sutton Trust, 2016). Parents with children at independent schools are also increasingly paying to 'top-up' their child's education with a private tutor. Private tuition comes at a significant financial cost, meaning that children from poorer families who cannot afford these services risk being yet further disadvantaged by this 'tutoring arms race'.

Defining tutoring

For the purposes of this programme, tutoring is defined as one to one tuition, where a university student volunteer (who is currently studying, or has studied to A-Level, a relevant subject) tutored a Year 11 pupil, offering intensive individual support in Maths and or English. Typically, pupils missed a timetabled lesson (identified by the school) to attend their tutoring hour.

The EEF review noted that 'short, regular sessions' over a set period of time (6-12 weeks) result in 'optimum impact'. This programme therefore involved ten weekly sessions of one hour in early 2018. The EEF research further noted the importance of a) explicitly linking tutoring material to normal teaching and b) well trained volunteers. The tutoring team worked closely with each school to prepare the student volunteers in Autumn 2017 and ensure that the tutoring material was complementary to standard lessons.

1.2 Focus of this report

This report shares the findings of the first year of the tutoring programme. The evaluation approach is set out in the following chapter (2). Chapter 3 considers the perspectives and perceived impact of those who participated in the programme (pupils, student volunteers and teachers). Chapter 4 offers concluding remarks and recommendations for future years.

2. Evaluation methods

The evaluation framework established for the tutoring programme has a number of aims. Firstly, it seeks to enable the University and participating schools to closely monitor experiences of the tutoring programme, to understand its effectiveness, and – if necessary, to adapt practices in future years. This is particularly important since most of the research into one to one tuition has involved younger learners at primary school. Additionally, the evaluation framework responds to the expectations of set out by OFFA for evaluating the impact of university outreach programmes. The ways in which this evaluation aligns with OFFA’s standards of evidence is discussed at the end of this chapter.

Evaluation design

The evaluation collected data from a number of groups involved with the tutoring programme and employed a variety of data collection methods. Quantitative and qualitative data were recorded. These approaches are outlined in table 2.1, below, and the research instruments can be found in the report appendix. The evaluation design was reviewed and approved by the Ethics Committee of the Department of Education, University of York. All participants in the evaluation offered their informed consent to be included in the evaluation. Parents and guardians were asked to provide informed consent on behalf of the pupils, since some were not yet aged 16 at the start of the evaluation.

Data source	Method	Detail and analysis
Attainment data	Prior, predicted and post attainment provided by school	Quantitative analysis of pre and post differences
Pupils	Pre and post surveys	Pre and post surveys with closed and open questions exploring self-rated subject knowledge and skill confidence, post-school plans and aspirations for higher education
Parents and guardians	Pre survey	Survey with closed questions recording demographic characteristics and family circumstances, and pupils’ aspirations for higher education
Senior and subject teachers	Interview	Qualitative interview exploring reflections on the programme; recorded, transcribed and inductively analysed
Student tutors	Post survey	Survey with closed and open questions exploring motivations for tutoring, experiences and recommendations

Table 2.1. Overview of evaluation design

All pre surveys were distributed to pupils, and parents and guardians, prior to the start of the tutoring. All post surveys and interviews were conducted shortly after the tutoring concluded, so that participants' perspectives on the tutoring remained recent. Pupils' attainment and responses to pre and post surveys, together with the demographic information provided by the parent or guardian, were linked using surnames into one dataset, which was subsequently anonymised.

Sample

As noted, two schools in York participated in the programme. In accordance with ethical requirements, these – and participants in the evaluation – are anonymised in this report. Each school identified up to 20 Pupil Premium students across Key Stage 4 Maths and English. In this report, the analysis is limited to pupils for whom parental or guardian consent was obtained. As is discussed in more detail in the next chapter, this resulted in a pupil sample of 24 (with 16 pupils at school A, and 8 pupils at School B). Table 2.2, below, provides an overview of the sample analysed in this evaluation. Across the various strands, data were collected from some 66 individuals involved in the tutoring programme. Additional detail on each source of data – together with reflections on data validity – are provided in the presentation of the research findings in Chapter 3.

Data source	<i>n</i>	Response rate (%)
Attainment data	14	35.0
Pupils	24	60.0
Parents and guardians	24	60.0
Senior and subject teachers	4	n/a
Student tutors	14	73.7

Table 2.2. Overview of sample

Standards of evidence

The mixed method evaluation design is intended to provide a rich insight into the experiences and impact of the tutoring programme, as perceived by all those involved in it. With reference to OFFA's standards of evidence on the evaluation on university outreach, there are a number of noteworthy considerations. Firstly, it is important to acknowledge that the tutoring programme is not an isolated intervention and the evaluation does not make use of a control group. Many of the pupils in this programme also participated in a number of other interventions during their final year of school. Secondly, with a sample of this size (<30 pupils), isolating the effects of the tutoring in statistical terms is not possible with any degree of confidence. Nevertheless, it is intended that with the establishment of the evaluation framework, collecting more robust quantitative data in future years as the programme grows will be possible. Phrasing these considerations another way, it is suggested that the current evaluation approach meets OFFA's 'Level 2' standards of evidence: that, in addition to a narrative account of change, quantitative evidence of pre/post treatment differences are reported, though this does not establish any direct causal effect between the intervention and outcomes. It is hoped that with more data over

a longer time frame, the evaluation should move towards the Level 3 requirement (Crawford, Dytham and Naylor 2017).

3. Findings

3.1 Pupil outcomes

Demographic characteristics

Table 3.1a, below, details the distribution of pupils by school and tutoring subject. As stated, this does not represent the full number of pupils who participated in the tutoring programme, but rather those for whom consent was obtained. At school A, 16 pupils participated in the evaluation research. Approximately one-third received English tuition, just over 40 per cent received Maths tuition, and one quarter were tutored in both subjects. At School B, consent and survey responses were returned only for pupils receiving Maths tuition ($n=8$). These differences in numbers by tutoring subject and school should be considered when reading the following results: pupils from School B are under-represented in the dataset, and those receiving English tuition at School B are not represented at all. The size of this sample necessitates a degree of caution when inferring conclusions from the following results. Where differences between pre and post tutoring results are observed, statistical hypothesis testing has not been attempted since the sample size does not exceed the minimum threshold ($n=30$).

	Tutoring subject			Total
	English	Maths	Both	
School				
A (<i>n</i>)	5	7	4	16
%	31.3	43.8	25.0	100.0
B (<i>n</i>)	0	8	0	8
%	0.0	100.0	0.0	100.0
Total (<i>n</i>)	5	15	4	24
%	20.8	62.5	16.7	100.0

Table 3.1a. Tutoring subject of pupils by school

Notes: $n=24$; numbers are italicised. Percentages displayed.

While each school employed shared eligibility criteria when recruiting for the tutoring programme, there are noteworthy demographic differences between the two sets of participating pupils (table 3.2, overleaf). School A recruited a higher proportion of male pupils to the programme (one-third, in contrast to fewer than one-quarter at School B). One-third of pupils at School B had a graduate parent or guardian, while no pupil at School A did. At School B, three-quarters of parents belonged to the top two occupational classes (NS-SEC 1 and 2), whereas parents of pupils at School A were classified as belonging to occupational classes 3 or lower. Only 12.5% of pupils at School A had a sibling in higher education, compared to some 40.0% of pupils at School B. With the caveat that the margin of error is high when reporting percentages from a small sample, these differences indicate that the pupils recruited by School A face greater socio-economic disadvantage than those recruited at School B.

	School		Total
	A	B	
Age			
15	68.8	66.7	68.2
16	31.3	33.3	31.8
Gender			
Male	31.3	16.7	27.3
Female	68.8	83.3	72.7
Ethnicity			
White British	100.0	100.0	100.0
In care			
	0.0	16.7	4.6
Graduate parent			
	0.0	33.3	9.1
Parent social class			
Higher managerial and professional occupations	0.0	25.0	5.6
Lower managerial and professional occupations	0.0	50.0	11.1
Intermediate occupations	28.6	0.0	22.2
Small employers and own account workers	7.1	0.0	5.6
Lower supervisory and technical occupations	14.3	0.0	11.1
Semi-routine occupations	14.3	0.0	11.1
Routine occupations	21.4	25.0	22.2
Never worked or long-term unemployed	14.3	0.0	11.1
Sibling in higher education			
	12.5	40.0	19.1

Table 3.1b. Demographic characteristics of pupils by school

Notes: $n=24$. Percentages displayed. Parental social class calculated using the Office for National Statistics ‘[simplified method](#)’ (on the basis of self-reported parental job title).

At both schools, all pupils were studying for GCSEs in Maths, English Literature, English Language and Science. Among the most common option modules were Foreign Languages, History and Geography.

Study skills and subject confidence

In the pre and post tutoring surveys, pupils were asked to rate their agreement against a number of statements concerning their study skills (see Chart 3.1a, overleaf). Agreement was rated on a four-point scale – ranging from ‘strongly agree’ to ‘strongly disagree’. Chart 3.1a details the pre to post tutoring change in ratings. For most statements, the proportion of pupils ‘strongly agreeing’ or ‘agreeing’ that they are good at the various study skills increased post-tutoring, while the proportion ‘strongly disagreeing’ or ‘disagreeing’ has decreased. For most items, tutoring is associated with increased confidence in study skills. Notable increases were observed for numeracy, problem-solving, and written communication. A small proportion of pupils were less confident in verbal communication and numeracy skills following the tutoring. The survey open comments suggest that a small number of pupils recalled feeling ‘awkward’ during the sessions

and being daunted by the prospect of meeting the university students which may explain why confidence in verbal communication diminished for a minority.

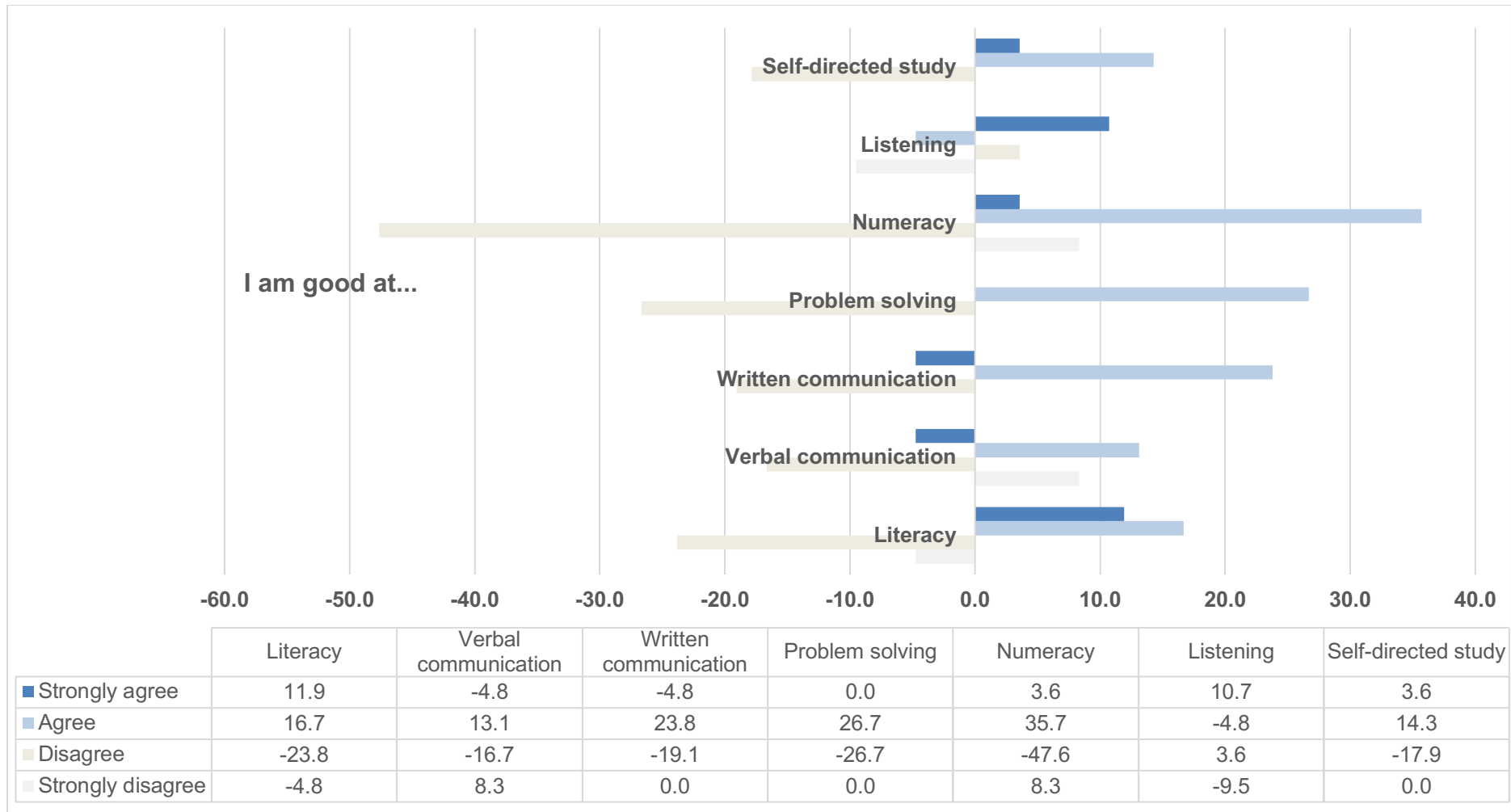


Chart 3.1a. Pre and post tutoring change in self-rating of skills

Notes: Pre-tutoring $n=24$; post-tutoring $n=16$. Axes shows percentage change in responses to a series of 'I am good at' statements.

Chart 3.1b, overleaf, similarly details pre and post tutoring changes in subject confidence. Once again, generally positive trends are depicted, with the proportions of pupils stating that they are 'not at all confident' decreasing for all subjects except Geography. At the point of the post-survey, a considerable number of pupils stated that they were now very confident in their GCSE subjects, with the greatest increase observed for Maths (an increase of 40.5% of pupils stating that they were very confident post-tutoring). While these results are very encouraging, it is not possible at this stage to infer a causal relationship between tutoring and confidence from these observations. It is possible that increased confidence may owe to time, progress made in lessons, or to other activities. It is further noteworthy that pupils' confidence increased in subjects outside of the tutoring programme, such as Foreign Languages and History. It is plausible that these increases may be a 'spill-over' effect from the tutoring, but there is little in the way of certain evidence for this. While many students spoke of increased confidence and enjoyment in the open comments, few explicitly mentioned the impact of tutoring on subjects beyond Maths and English.

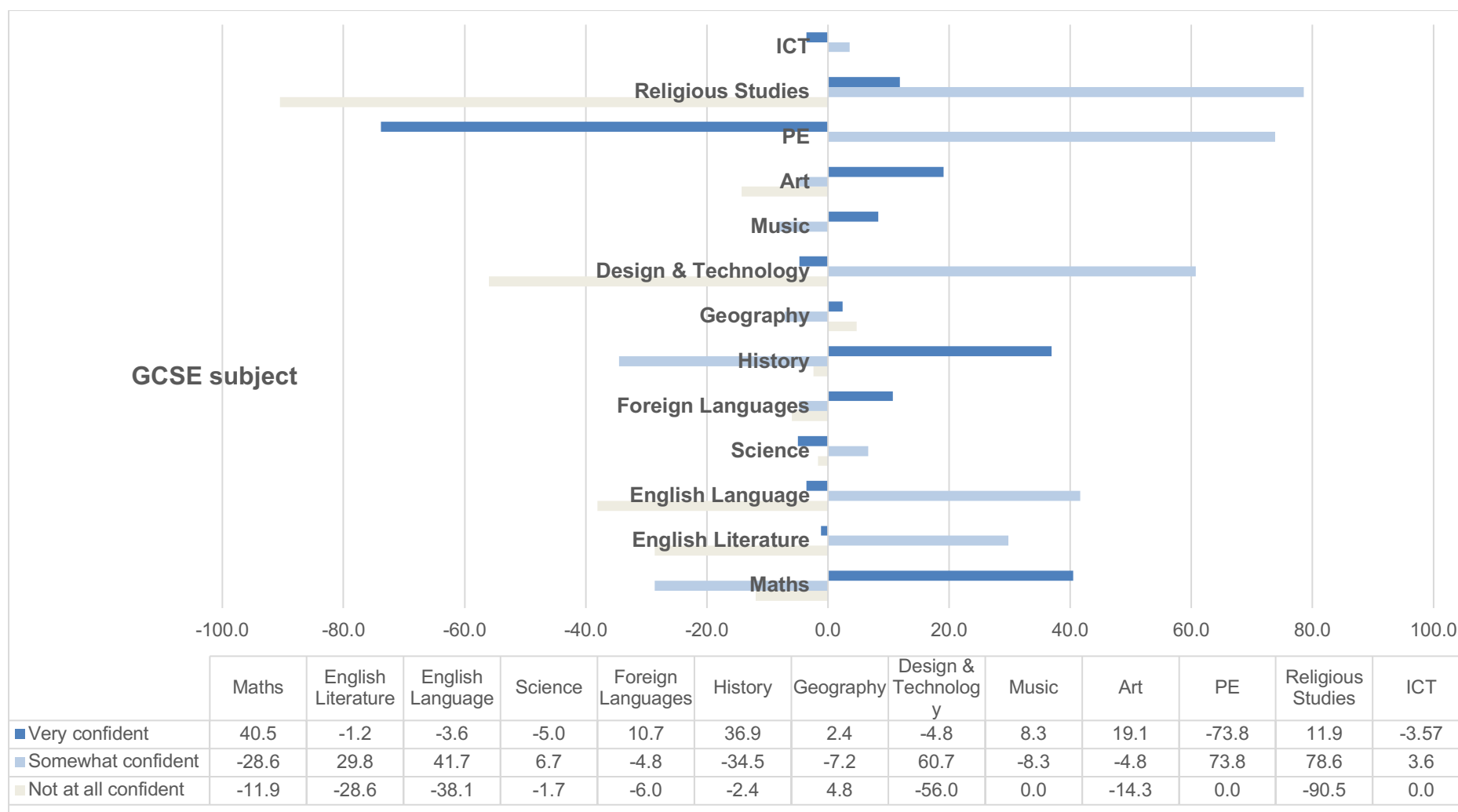


Chart 3.1b. Pre and post tutoring change in self-rating of subject confidence

Notes: Pre-tutoring $n=24$; post-tutoring $n=16$. Axes shows percentage change in responses.

Attainment

An arguably more concrete measure of the academic impact of tutoring can be found by examining pupil attainment before and after the programme. The following analysis compares attainment prior to the tutoring with pupils' final August GCSE result in order to discern any changes. As noted earlier in the report, where differences are observed they have not been tested for statistical significance, since the numbers are short of the threshold of 30. It should further be noted that only one school, School A, was able to provide attainment data for its pupils. Therefore, these early results are indicative and further, more extensive analysis is needed in future iterations of the programme to understand its impact with greater certainty. For the pre-tutoring attainment measure, pupils' results in the Year 11 mock, rather than predicted or reported 'working at' grades, have been used as a more reliable indicator.

Table 3.1c, below, provides an overview of attainment change for the whole sample of pupils. We can observe that for across the pupil sample, the average grade received in the Year 11 mock is 4¹. For Maths, the average August grade has increased to 5, whereas it remains at 4 for English Language and Literature. We can also observe that the standard deviation is much higher for both English subjects than it is for Maths, indicating a more diverse spread of grades. Indeed, within the English subjects, individual pupils fluctuated by as much as 2 grades from the mock to the final exam (both decreases and increases), whereas the distribution of the Maths results was far smoother.

	Year 11 mock	August result	Grade change	Standard deviation
Maths	4	5	+1	0.8
English Language	4	4	0	1.7
English Literature	4	4	0	1.6

Table 3.1c. Average attainment results across the sample

Notes: $n=14$; School A only. Mean grade calculated. Percentages displayed.

Tables 3.1d and 3.e, overleaf, separate the sample by tuition received. Table 3.1d shows the results for Maths attainment only. Here it can be observed that those receiving Maths tuition gained a higher grade on average than those that did not (5 – a strong pass - as opposed to 4, a standard pass). Both groups of pupils however saw their grade increase on average by 1 level from the mock to August. For English (table 3.1e) the results are less conclusive. For both Language and Literature, the average August grade is consistent for both sets of pupils (4). On average, all pupils increased their grade by 1 level over this time, with the exception of those sitting English Language who did not receive tuition (who increased on average by 2 levels). It should again be noted that the standard deviations for the English grades are higher than that for Maths, indicating a greater spread of marks and a more volatile set of results to draw meaning from. It might also be argued that those without tuition do not necessarily offer a fair

¹ Averages here are calculated using the mean.

comparison group in this case, since these pupils might have been judged for a variety of reasons to not need tutoring. In the absence of a randomised control group or other counterfactual, it would be premature at this stage to say whether the increase of one grade observed in all of our tutored pupils might have happened in any case.

	August result	Grade change	Standard deviation
Maths (with tuition)	5	+1	1.1
Maths (no tuition)	4	+1	0.5

Table 3.1d. Average attainment results for Maths (with tuition and without)

Notes: $n=14$; School A only. Mean grade calculated. Percentages displayed.

	August result	Grade change	Standard deviation
English language (with tuition)	4	+1	1.0
English language (no tuition)	4	+2	0.8
English literature (with tuition)	4	+1	1.6
English literature (no tuition)	4	+1	1.8

Table 3.1e. Average attainment results for English language and literature (with tuition and without)

Notes: $n=14$; School A only. Mean grade calculated. Percentages displayed.

Aspirations and future plans

This section considers changes in pupils' post-schools plans and intentions for higher education following the tutoring. Prior to tutoring, continuing in full-time education (A-Levels) was most frequently chosen by pupils (Table 3.1f). At the point of the post-tutoring survey, no pupil selected this option, with around two-thirds (60.0%) stating they wished to pursue a BTEC qualification after school. The proportion stating that they would undertake an apprenticeship also doubled over this time. Turning to higher education, firm 'yes' responses remained consistent across the pre and post survey (one-third of pupils). However, the proportion stating that they did not wish to enter higher education declined considerably between the pre and post survey (from 52.4% to 12.5%). This corresponds with an increasing proportion of pupils stating they were undecided. While it is not certain that this shift owes directly to the tutoring, it seems plausible that pupils' increased academic confidence, and the experience of working with university students, has encouraged a more open outlook towards higher education.

	Pre-tutoring			Post-tutoring			Pre to post change
	A	B	Total	A	B	Total	
Post school plans							
Full-time education (A Levels)	25.0	85.7	43.5	0.0	0.0	0.0	-43.5
Full-time education (BTEC)	31.3	14.3	26.1	60.0	0.0	60.0	33.9
Apprenticeship	25.0	0.0	17.4	30.0	0.0	30.0	12.6
Traineeship	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Part-time employment or volunteering alongside education or training	18.8	0.0	13.0	10.0	0.0	10.0	-3.0
Intention to enter higher education							
Yes	31.3	40.0	33.3	31.3	37.4	33.3	0.0
No	50.0	60.0	52.4	18.8	0.0	12.5	-39.9
Undecided	18.8	0.0	14.3	50.0	62.5	54.2	39.9

Table 3.1f. Post-school plans and intentions to enter higher education

Notes: Pre-tutoring $n=24$; post-tutoring $n=16$. Percentages displayed.

Table 3.1g, overleaf, shows pupils' reasons for their post-school plans. As might be expected with the high proportion opting to pursue a BTEC, gaining practical experience and embarking on a particular career are consistently highly cited. Also noteworthy are the increasing proportions who state that their post-school plans have been influenced by the advice of school staff and family, and the future intention to enter higher education. Tables 3.1h and i, both overleaf, further explore the explanations of those who are either undecided or not intending to enter higher education. For those who are undecided about higher education, it seems that a more informed position emerges between the pre and post survey. The proportions stating that they are unsure of what or where to study, or of the cost of higher education, decreases to zero. However, these pupils remain uncertain about whether about higher education is suited to their longer-term aims, and of the academic requirements. Similar concerns about the longer-term outcomes are cited by those not intending to enter higher education. More positively, however, these pupils also stated that they have chosen to focus on something else.

	Pre-tutoring	Post-tutoring	Pre to post change
Reason for post-school plans			
Gain practical experience	66.7	72.7	6.1
Develop particular skills	85.7	36.4	-49.4
Embark on particular career	76.2	63.6	-12.6
Enhance future earnings	42.9	45.5	2.6
Develop academic study	19.0	0.0	-19.0
To progress to HE	9.5	18.2	8.7
To follow friends or family advice	9.5	27.3	17.7
To follow teacher or advisor advice	9.5	18.2	8.7
To fit around other commitments in life	9.5	0.0	-9.5

Table 3.1g. Reasons for post-school plans

Notes: Pre-tutoring $n=24$; post-tutoring $n=16$. Percentages displayed.

	Pre-tutoring	Post-tutoring	Pre to post change
Undecided about higher education			
Unsure of academic demands	30.8	50.0	19.2
Unsure what to study	53.8	0.0	-53.8
Unsure where to study	15.4	0.0	-15.4
Unsure how to fit with other commitments	0.0	0.0	0.0
Unsure about financial costs	30.8	0.0	-30.8
Unsure whether HE will help me to achieve my goals	15.4	50.0	34.6

Table 3.1h. Undecided about higher education: reasons why

Notes: $n=13$. Percentages displayed.

	Pre-tutoring	Post-tutoring	Pre to post change
Not intending to enter higher education			
Don't think I'll meet academic requirements	0.0	0.0	0.0
Don't want to stay in education	66.7	33.3	-33.3
Don't think I'm suited	33.3	0.0	-33.3
It is too expensive/ don't know how to fund it	0.0	0.0	0.0
Don't know what it will lead to	0.0	33.3	33.3
Want to focus on something else	0.0	33.3	33.3
Personal reasons (family, partners, dependants)	0.0	0.0	0.0

Table 3.1i. Not intending to enter higher education: reasons why

Notes: $n=3$. Percentages displayed.

In the post-survey, all pupils were asked whether they felt more or less informed about higher education as a result of the tutoring. Some 45.5% stated that they felt more informed, while 54.6% reported no change. No pupil felt less informed following the tutoring.

Summary reflections

It appears that, for the majority of pupils, tutoring enhanced confidence in their academic skills and subject knowledge. For around half of the pupils surveyed, it increased their knowledge of higher education. Around one-third of pupils who stated they did not intend to enter higher education shifted their position to 'undecided' at the point of the post-survey. Almost ninety per cent of the pupils stated that they would recommend the tutoring programme to others (88.3% yes; 16.7% no). A selection of the open comments further confirms these positive experiences:

I would recommend the tutoring because it helps towards better grades and confidence.

It really helped to grow my confidence in Maths. I found it very useful, so anyone in the year below will benefit even more.

It has been very helpful. I have gained more confidence and increased my grades in English.

I can now do questions I used to struggle with and have been getting grade 5 in recent mocks. I understand trigonometry more and can now do ratios.

The small number of pupils stating that they would not recommend the programme cited the 'awkwardness' of the one to one setting, and the challenge of meeting new people. When prompted, the vast majority of pupils did not offer suggestions for improving the programme. A small number of individual suggestions included greater use of exam questions and ensuring quiet spaces for study.

3.2 Student tutors

Of the nineteen volunteer tutors, fourteen completed the online survey exploring their experiences at the end of the programme (a response rate of 73.7%). Maths and English tutors were represented equally within the survey sample. The volunteers were studying for a range of undergraduate degrees - including History, Politics, and Psychology - alongside Maths and English. One-third of the sample had volunteered at School A, and two-thirds at School B. The student volunteers appeared to originate from relatively privileged socio-economic backgrounds. One quarter were privately educated, three-quarters had a graduate parent, and all parents were employed in managerial and professional occupations.

Prior experience of tutoring

Two-thirds of the student volunteers reported that they had previously acted as a tutor. Mostly, this experience occurred on a voluntary basis although one-quarter were previously paid. The open comments suggested that most prior experience was at GCSE level. The vast majority

(over 90%) had previous work experience in an educational setting (for example, as a classroom assistant or with an after-school club). Mostly this experience had been undertaken while studying at the University of York.

Reasons for undertaking tutoring

Students’ reasons for undertaking tutoring were varied. The most commonly cited aims were: the development of particular skills; to gain practical experience; and, to contribute to the local community (15.5% each). Chart 3.2a, below, details student perceptions on the achievement of their initial objectives following the tutoring.

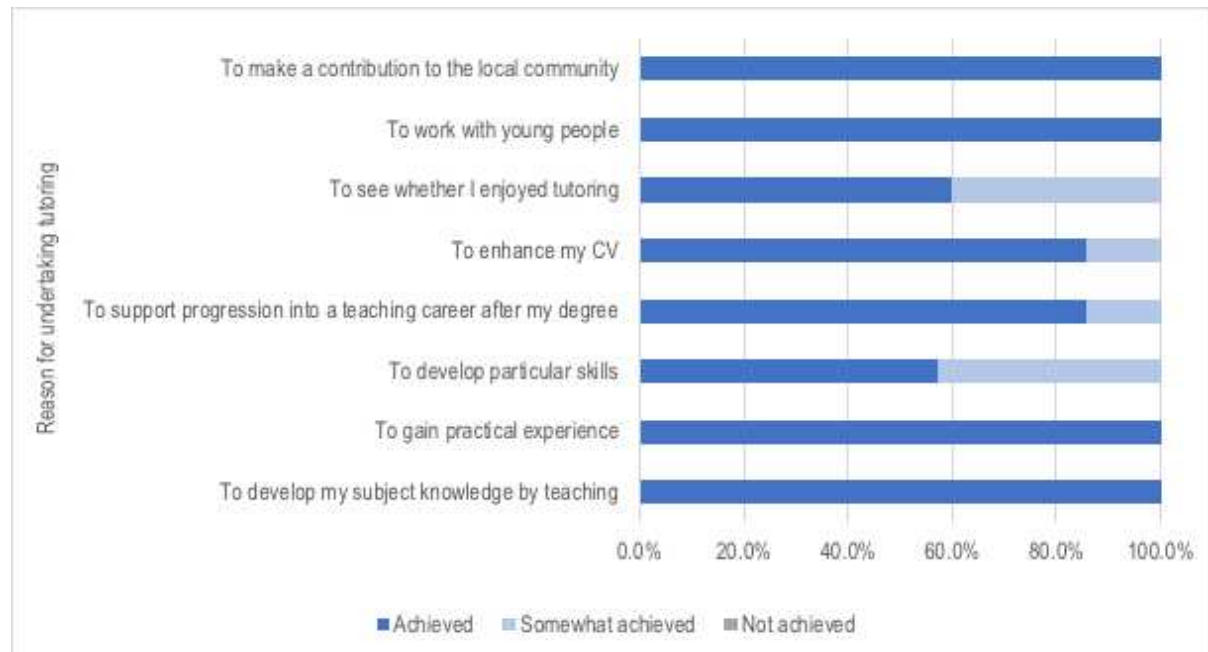


Chart 3.2a. Student volunteers’ realisation of reasons for undertaking tutoring

Notes: *n*=14. Respondents rated the realisation of objectives identified as a reason for undertaking tutoring.

All students perceived that they had wholly or somewhat achieved their individual aims through the tutoring. Students intending to contribute to the local community, work with young people, and develop subject knowledge considered these aims to have been entirely achieved.

Skills development

In terms of specific skills development, communication (17.8%); conveying ideas (13.7%); and working with young people (13.7%) were most cited by the student volunteers. Chart 3.2b overleaf illustrates the extent to which the volunteers perceived they had developed these skills through tutoring.

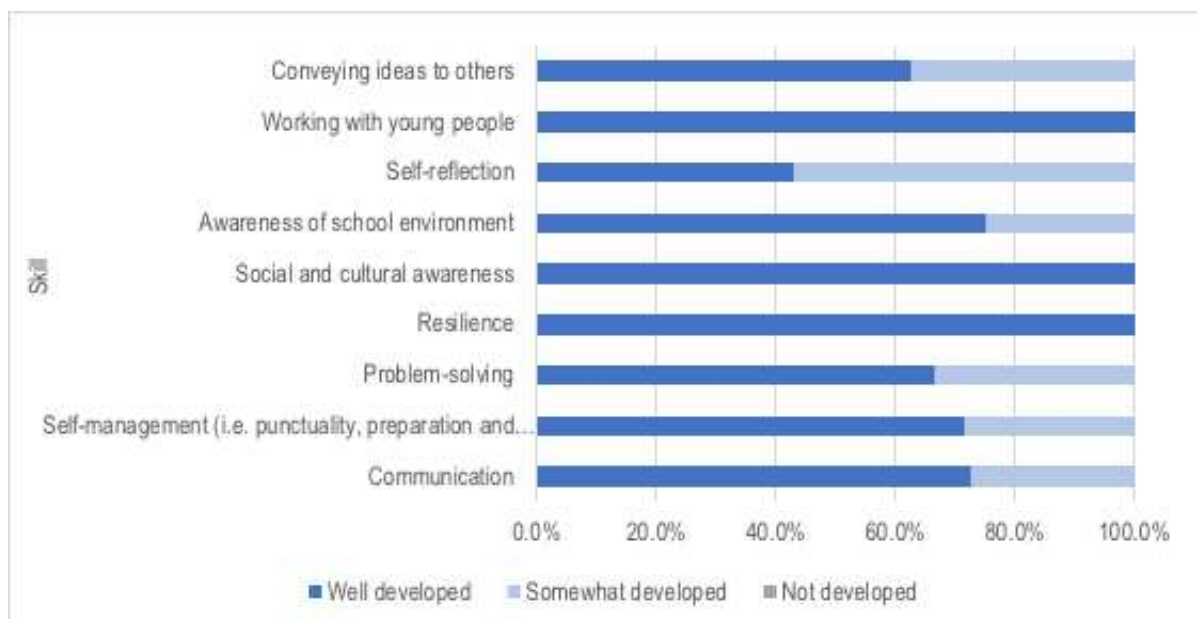


Chart 3.2b. Student volunteers' development of skills through tutoring

Notes: $n=14$. Respondents rated the development of skills they had intended to enhance through tutoring.

All student volunteers perceived that their skills were well or somewhat developed as a result of tutoring. All student volunteers who sought to develop their skills in terms of working with young people, social and cultural awareness, and resilience judged that these skills were particularly well developed from tutoring.

Preparation for tutoring

All of the student volunteers reported feeling extremely or mostly well prepared for the tutoring. In the open comments, students praised the pedagogical and pastoral advice offered during training. A small number of comments suggested that greater access to teaching materials and further guidance on the curriculum would have been beneficial:

Although most of the teaching advice and preparation was useful, the teaching materials offered in training were not relevant to the courses we would be tutoring. For example, the English exercises that we went through were generic (I understand this was the intention). Throughout the placement I found that I needed AQA specific materials in order to offer valuable tutoring - the link teacher helped immensely with this. It should be made clear to future tutors that an understanding and knowledge of the current GCSE specification and mark scheme is essential.

Other suggestions for enhancing the training for future years included allowing tutors to see a sample of pupil work in advance; extending the amount of time for practice tutoring during training; and, additional suggestions for engaging shy and less confident pupils.

Experiences of tutoring

All of the student volunteers reported that they found tutoring extremely or somewhat enjoyable. As the following open comments testify, the volunteers characterised tutoring as a challenging but ultimately rewarding experience, with clear benefits in terms of skills development and professional outlook.

My tutoring experience was an incredibly challenging one, but also one of the most rewarding experiences I have gained at university. It helped me to gain a practical understanding of teaching and improved my ability to adapt to different situations and change my lesson plans depending on the needs and attitudes of the students.

It was a pleasure to work with two Year 11 students of contrasting abilities, but to watch both of them progress throughout the tutoring sessions. Being able to see that you have had a real impact on a student's understanding of a topic and progression in their subject is an incredibly rewarding aspect of the programme that I did not expect when I started my placement.

I loved it, and it has convinced me to apply for a PGCE in secondary English.

Reflecting on initial expectations, half of the student volunteers stated that the tutoring experience was as they expected. Some 41.7% reported that the experience was better than expected, while 8.3% judged tutoring to have been more challenging than anticipated. However, all volunteers agreed that the tutor workload was manageable alongside other commitments.

The vast majority of volunteers stated they were extremely or somewhat well supported when working in the schools. The open comments are overwhelmingly positive in this regard: thanking individual teachers and colleagues at the University of York; and acknowledging the value of having many points of contact. The more critical comments related to isolated miscommunications - such as a tutor learning only after arrival at the school that a pupil was not in attendance or a confusion over material delivered in class. One volunteer mentioned having to tutor in a space that was noisy and distracting, but it is not clear whether this was a one-off event. Only one respondent stated that they did not feel well supported at school – but did not elaborate on this in the open comments. On balance, all student tutors stated that the programme was extremely or somewhat well organised. At the time of writing, both schools and the university are working to revise scheduling and communication protocols to minimise any similar disruption next year.

Summary reflections

It is clear that the majority of student volunteers found tutoring to be a positive, enriching and rewarding experience. Half of the volunteers stated that they would participate in the programme again, and half said that they might - explaining that they would need check the workload and timetable first (most of the survey respondents were in the first year of their degree). All of the volunteer tutors stated that they would recommend the programme to other students at the

University of York. One student suggested that the programme could be expanded to include other tutoring subjects, making it more attractive to students from other degree programmes.

3.3 Teacher perspectives

Interviews were conducted with subject teachers and a head of year at both schools, shortly following the last tutoring session. Interviews considered the impact of the tutoring, challenges, and suggestions for the future.

Impact of the tutoring

All of the teachers interviewed spoke very positively of the programme and highlighted multiple ways in which they thought it had supported both pupils and their school during the approach to the GCSE exams. Several of the teachers commented that the programme elevated the status of Maths and English, and that the pupils selected for tutoring felt ‘special’ as a result.

The fact that English has been given that gravitas, of being prioritised, offered a special timetable. It shows the pupils that English is really important, and that the pupils do need to be doing extra work. Having an outside body [i.e. the university] and a tutoring programme support this can only add to it.

(English teacher, School A)

I think the pupils felt valued – an extra special effort was being put in place for them, and they had an additional person that they could talk to. Those pupils knew they hadn’t done so well in the mock exam, and knew they needed to improve. Only 10 pupils were selected from 160 - they felt special and took it seriously.

(Maths teacher, School A)

Extending this point, one teacher suggested that the programme demonstrated to pupils that ‘schools, parents and employers put a big emphasis on those subjects.’ In this way, the programme was thought to affirm the importance of Maths and English to pupils’ post-school plans - ‘whether they want to become engineers or nursery nurses.’

Consistent to the responses to the pupil survey, all teachers suggested that tutoring noticeably boosted pupil confidence. This teacher emphasised the importance of confidence, and the positive attitude pupils developed.

Confidence – that’s the main thing. It’s the confidence that they can do Maths and they can do English. None of them are saying “I can’t do this” – and they used to. It has given pupils the confidence to believe they could achieve a grade 4 or 5. The confidence to ask questions that they might not be able to ask in class. To build up relationships and interact with other people that they

don't know; which is something our pupils don't do. It is confidence in learning and in social skills.

(Head of Year, School A)

Although the teachers were uncertain of whether tutoring may have informed or altered pupils' post-school plans and intentions for higher education, there was consensus that the experience likely broadened pupils' horizons, as one teacher reflected:

For those who developed a good relationship with their tutor, it was really nice to see these pupils come out of their shell. They came out of the sessions smiling and would ask each week 'What is next?' They were building a relationship with someone that they wouldn't normally meet. You often don't realise how little contact these pupils will have with people who have gone to university. There are huge hurdles in not knowing anyone or having any role models like that.

(Maths teacher, School A)

All of the teachers firmly believed that the tutoring had impacted positively on attainment, citing grade increases and improved attendance. Observed differences in attainment ranged from several sub-levels to several grades. Several teachers commented that isolating the effects of the tutoring on attainment would be challenging, since many of the participating pupils also received additional support, in the form of lunchtime or after-school clubs, and a residential. One teacher commented that he was 'slightly worried that a few pupils will start to panic in the run up to the exams' - a point that will be returned to shortly.

Finally, the head of year believed that parents were strongly in support of the programme:

Parents really value it – they see it as free tuition and it has really helped with our parent relations. The university students were so professional - in terms of conduct and time-management, and I think parents really appreciated that. Ten hours of free tuition was given in the months before the GCSEs. We've had a lot of good feedback from parents, saying 'thanks'.

(Head of Year, School A)

Challenges

Despite the very positive reactions from teachers, a small number of challenges were discussed during the interviews. As noted, several of the teachers reflected on the difficulty of quantifying the effect of the tutoring alone, particularly with regard to attainment and effects on subjects other than Maths and English (which several of the teachers believed had resulted).

Logistical difficulties were noted but no clear solution to these emerged. While the changing weekly timetable caused confusion and sometimes meant sessions were slightly shorter than the intended one hour, the Head of Year felt strongly that a rigid approach wouldn't work: 'we need to be flexible in terms of the timetable – no student wants to miss ten weeks of PE'. This teacher mentioned that while School A had avoided pupils missing Maths and English lessons for tutoring, they may consider this in the next academic year. One possible solution to the timetabling pressure – running the tutoring before or after school – was not well received by the teachers, who pointed out that the pupils participating in the programme often had poor attendance and responsibilities outside of school.

Finally, and as alluded to in the pupil and student open comments, a number of teachers suggested that more could be done to support the relationship between pupils and tutors in future years. One teacher reflected on this at length:

Some of the pupils said they were being spoken at, and that it wasn't a dialogue. The student tutors could probably do with a bit more time to talk with teachers in advance of the programme and be supported more in terms of communication with pupils. Pupils are used to being subordinate, and the university students need to be confident taking on a leadership role in that dynamic. Sometimes the sessions seemed a little too quiet. Our students want to be led.

(English teacher, School A)

Suggestions for the future

Teachers' suggestions for future iterations of the programme build on these perceived successes and challenges. Addressing firstly the challenges, all teachers agreed that enabling pupils and tutors to meet earlier – perhaps through an informal event such as a day out – would help with the tutoring dynamic. An alternative approach – suggested by one teacher – would be to start the programme by inviting student tutors into a subject lesson in the fortnight before tutoring began. It was felt that this would help tutors to plan their work, familiarise with the curriculum, and better align their expectations of what pupils could do in each tutoring session.

Ensuring that each tutor was observed at least once was suggested as a means to help develop reflective practice, and in particular provide advice and feedback on methods of asking questions and managing silences. One teacher suggested that enhanced CRB checks would enable tutors and pupils to work together privately, which may put pupils at ease and strengthen dialogue.

Several teachers asked about the possibility of beginning the tutoring earlier, in Year 10. It was felt that this would enhance the many benefits perceived from the tutoring by enabling longer-term assistance. It was also noted that beginning earlier may offer more insight into the impact of the tutoring, since several other interventions occur in Year 11. Two teachers stated that extending the programme to include sessions nearer to the exams would likely be extremely valuable, although they noted that this would also coincide with the university assessment period.

Final suggestions included extending the programme to include other GCSE subjects, or to offer distinct English language and English literature tutoring. Teachers were open to the possibility of small group tutoring as a means to reach more pupils; indeed, one teacher believed that for certain pupils, this approach might be preferable.

Moving to small groups – two or three pupils to one student could definitely work, but the pupils would need to be carefully selected. There are some pupils who would definitely benefit in a small group setting, and some who absolutely need to be tutored on a one to one basis.

(Head of Year, School A)

4. Conclusion and recommendations

It is clear that the first year of the University of York tutoring programme is perceived to have been a success by those who participated in it.

For the majority of the participating pupils, tutoring enhanced self-rated confidence in academic skills and subject knowledge. For around half, tutoring was associated with an increase in knowledge of higher education. Almost ninety per cent of the pupils stated that they would recommend the tutoring programme to others.

The analysis of pupils' attainment is limited by the fact that only one school was able to provide data on this. From these data, it is clear that those receiving Maths tuition secured a higher average grade in their GCSEs than those that did not (5 compared to 4). The tutored pupils also saw their grade increase by 1 level on average since their mock exam. For English Language and Literature, the results are less conclusive. For example, the highest increase (an average of 2 grades) was observed for those without tutoring in English Language. Nevertheless, in both Language and Literature, the tutored pupils saw their grades increase by 1 level and finished their GCSEs with an average grade 4 (a standard pass).

In the absence of a randomised control group or other counterfactual, it would be premature at this stage to say whether the increase of one grade observed in all of our tutored pupils might have happened in any case. It is certainly positive that the average trend for those receiving tutoring is of enhanced attainment, and that the average result is at least a standard pass in all subject areas. Put simply, the tutoring intervention does not imply any negative consequences for attainment. With the cooperation of participating schools, achieving a more extensive analysis of the association with attainment is essential as the programme is moves into 2018/19.

The majority of the student volunteers found tutoring to be a positive, enriching and rewarding experience. Half stated that they would personally participate in the programme again, and all of the volunteer tutors stated that they would recommend the programme to other students at the University of York. All of the teachers interviewed spoke positively of the programme and highlighted several ways in which they thought it had supported both pupils and the school during the approach to the GCSE exams.

Recommendations

A number of recommendations are offered to build on the strengths of this first year, and the feedback gained from participants in the evaluation.

- Firstly, there is a need to work closely with schools to ensure that the number of pupils participating in the evaluation research is increased. While participation in the evaluation must remain a voluntary decision for pupils, their parents and guardians, the quality of the conclusions drawn from the evaluation, is affected by the size of the dataset.

- It is interesting to note that although each school employed shared eligibility criteria when recruiting for the tutoring programme (i.e. eligibility for Pupil Premium), the two sets of participating pupils are different. This is something that the University and participating schools may wish to reflect on, by, for example, considering a more detailed criteria of eligibility.
- In order to better understand the impact of the tutoring on attainment it would be helpful for schools to provide the University with information about other interventions that tutoring pupils are also participating in during their final year of school.
- Although logistical challenges involving timing and transport were noted by teachers and student tutors, no single solution to these emerged. Responses to these challenges are being developed by the University and participating schools.
- In order to support the pupil-tutor relationship, a number of suggestions may be considered, including: enabling pupils and tutors to meet earlier through an informal social event; inviting student tutors into a subject lesson before tutoring begins; ensuring that tutors are observed at least once by a member of the university tutoring team or a school teacher; and, considering enhanced CRB checks to enable tutors and pupils to work together privately. Increasing the time for practice tutoring during student training should be explored, as could allowing tutors to see a sample of pupil work before tutoring begins.
- Opportunities for extending the programme in the future were welcomed. The following suggestions might be prioritised: developing the programme for Year 10 pupils; introducing revision sessions timed more closely to the GCSE exams; including other GCSE subjects or offering distinct English language and English literature tutoring; and, considering small group tuition in addition to the one to one model. This would allow the programme to reach a larger number of pupils. This last suggestion is important in light of the University's ambition to extend the tutoring scheme in the future. It is likely to prompt new logistical challenges, and the training and support offered to student tutors may require further adaptation. Nevertheless, it would seem worthy of consideration, since one teacher believed it could be a preferable arrangement for certain pupils, and the research literature on the relative efficacy of these two models is equivocal.

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Appendices

Appendix A. Attainment data specification

Prior attainment

- End of year result in year 10
- Mock exam result (before tutoring)

Year 11 attainment

- Working at grade if estimated
- Predicted/ target grade

Actual attainment

- August GCSE results

- In all subjects taken

Appendix B. Pupil pre and post surveys

Maths and English tutoring scheme
Pre-tutoring survey

Name _____

School _____

Please complete as much of the survey as you can. All questions are optional.

Your current study at school

1. What subjects are you currently studying at GCSE? Please tick all that apply.

Maths	<input type="checkbox"/>	Religious Studies	<input type="checkbox"/>
English Literature	<input type="checkbox"/>	ICT	<input type="checkbox"/>
English Language	<input type="checkbox"/>	Other (please write below)	<input type="checkbox"/>
Science	<input type="checkbox"/>		<input type="checkbox"/>
Foreign Languages	<input type="checkbox"/>		<input type="checkbox"/>
History	<input type="checkbox"/>		<input type="checkbox"/>
Geography	<input type="checkbox"/>		<input type="checkbox"/>
Design & Technology	<input type="checkbox"/>		<input type="checkbox"/>
Music	<input type="checkbox"/>		<input type="checkbox"/>
Art	<input type="checkbox"/>		<input type="checkbox"/>
PE	<input type="checkbox"/>		<input type="checkbox"/>

2. Please consider the following statements about your current skills-set, and indicate where you think you are on the scale.

	Strongly agree	Agree	Disagree	Strongly disagree
I am good at literacy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am good at verbal communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am good at written communication	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

I am good at problem solving				
I am good at numeracy				
I am good at listening				
I am good at self-directed study				

3. Thinking about your GCSE exams, how prepared do you feel for your exams in the following subjects?

	Very confident	Somewhat confident	Not at all confident
Maths			
English Literature			
English Language			
Science			
Foreign Languages			
History			
Geography			
Design & Technology			
Music			
Art			
PE			
Religious Studies			
ICT			
	Very confident	Somewhat confident	Not at all confident
Other (please write)			
Other (please write)			
Other (please write)			

The tutoring programme

These questions about the tutoring programme. Please write what you can - **a few key words for each question is fine.**

4. What are you most looking forward to about the tutoring?

5. Do you have any concerns about the tutoring scheme?

6. Thinking ahead to ten weeks' time, what would you most like to have achieved from the tutoring?

Thinking about the future

7. What do you hope to do after you leave school? Please tick only one answer.

Full-time education (A Levels)	<input type="checkbox"/>
Full-time education (BTEC)	<input type="checkbox"/>
An apprenticeship	<input type="checkbox"/>
A traineeship	<input type="checkbox"/>
Part-time employment or volunteering alongside part-time education or training	<input type="checkbox"/>

8. Alongside these activities, will you be doing any of the following additional activities? Please tick all that apply.

Looking after the home	<input type="checkbox"/>
Caring for dependants (including siblings, parents or grandparents)	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>
None of the above	<input type="checkbox"/>

9. From the following list, please select the **three** most important motivations for your post-school plans.

To gain practical experience	
To gain particular skills	
To enter a particular career	
To enhance my future earnings	
To continue academic study	
To progress to higher education	
To follow the advice of my family or friends	
To follow the advice of my teachers/ advisors at school	
To fit around other commitments in my life	
Other (please specify)	

10. Do you hope to go to university in the future? Select only one answer.

Yes	
No	
Undecided	

11. **If yes**, what subject do you hope to study? Tick only one answer.

Medicine	
Biology	
Physics	
Maths	
Computer Science	
Engineering	
Social sciences	
Law	

Languages	
Psychology	
Business studies	
Creative arts or music	
Undecided	
Other (please state)	

12. **If you are undecided about going to university**, why is this? Please select all that apply.

I'm unsure of the academic demands of university	
I'm unsure of what to study	
I'm unsure of where to study	
I'm unsure how to fit university around other commitments in my life	
I'm unsure about the financial costs of university	
I'm unsure whether university will help me to achieve my goals in life	
Other (please state)	

13. **If you do not want to go to university**, why is this? Please select all that apply.

I don't think I'll meet the academic requirements for university	
I don't want to stay in education after 18	
I don't think I'm suited to university study	
It is too expensive/ I don't know how to fund it	
I don't know what it will lead to	
I want to focus on something else	
Personal reasons (e.g. relating to family, partners or dependants)	

Other (please state)

Thank you for answering these questions.
We wish you every success for your tutoring!

Maths and English tutoring scheme
Post-tutoring survey

Name _____

School _____

Please complete as much of the survey as you can.
All questions are optional and your answers will not be shared with tutors.

Your current study at school

1. Please consider the following statements about your current skills-set, and indicate where you think you are on the scale.

	Strongly agree	Agree	Disagree	Strongly disagree
I am good at literacy				
I am good at verbal communication				
I am good at written communication				
I am good at problem solving				
I am good at numeracy				
I am good at listening				
I am good at self-directed study				

2. Thinking about your GCSE exams, how prepared do you feel for your exams in the following subjects?

	Very confident	Somewhat confident	Not at all confident
Maths			
English Literature			
English Language			
Science			
Foreign Languages			
History			
Geography			
Design & Technology			
Music			
Art			
PE			
Religious Studies			
ICT			
	Very confident	Somewhat confident	Not at all confident
Other (please write)			
Other (please write)			
Other (please write)			

The tutoring programme

These questions about the tutoring programme. Please write what you can - **a few key words for each question is fine.**

3. How many tutoring sessions did you attend? _____

4. What have you most enjoyed about the tutoring?

5. Is there anything you have found challenging during the tutoring?

6. What is your proudest achievement from the past ten weeks of tutoring?

7. Do you have any suggestions about how we might improve the tutoring programme in the future?

8. Would you recommend the tutoring programme to pupils in the year below?

Yes	
No	
Unsure	

Please explain your answer to the above in a few words.

Thinking about the future

9. What do you now hope to do after you leave school? Please tick only one answer.

Full-time education (A Levels)	
Full-time education (BTEC)	
An apprenticeship	
A traineeship	
Part-time employment or volunteering alongside part-time education or training	

10. From the following list, please select the **three** most important motivations for your post-school plans.

To gain practical experience	
To gain particular skills	
To enter a particular career	
To enhance my future earnings	
To continue academic study	
To progress to higher education	
To follow the advice of my family or friends	
To follow the advice of my teachers/ advisors at school	
To fit around other commitments in my life	
Other (please specify)	

11. Do you hope to go to university in the future? Select only one answer.

Yes	
No	
Undecided	

12. **If yes**, what subject do you hope to study? Tick only one answer.

Medicine	
Biology	
Physics	
Maths	
Computer Science	
Engineering	
Social sciences	
Law	

Languages	
Psychology	
Business studies	
Creative arts or music	
Undecided	
Other (please state)	

13. If you are undecided about going to university, why is this? Please select all that apply.

I'm unsure of the academic demands of university	
I'm unsure of what to study	
I'm unsure of where to study	
I'm unsure how to fit university around other commitments in my life	
I'm unsure about the financial costs of university	
I'm unsure whether university will help me to achieve my goals in life	
Other (please state)	

14. If you do not want to go to university, why is this? Please select all that apply.

I don't think I'll meet the academic requirements for university	
I don't want to stay in education after 18	
I don't think I'm suited to university study	
It is too expensive/ I don't know how to fund it	
I don't know what it will lead to	
I want to focus on something else	
Personal reasons (e.g. relating to family, partners or dependants)	
Other (please state)	

--

15. Do you feel more informed about going to university as a result of the tutoring? Please select only one answer.

More informed	
Less informed	
No difference	

16. Has your view about going to university changed as a result of the tutoring?

Yes	
No	
Unsure	

Please explain your answer to the above in a few words.

Thank you for answering these questions.

Appendix C. Parent and guardian pre survey

Evaluation of the University of York Maths and English Tutoring Scheme

Pupil information survey

Please complete as much of the questionnaire as you can. All questions are optional.

Name of pupil	
School	
Age	
Gender	
Ethnicity	
Postcode of family home [first four digits only]	

For the following yes/ no questions, please circle the appropriate answer.

Is your child eligible for Free School Meals? Yes No

Does your child have any special educational needs or a disability? Yes No
If yes, please provide details:

Is this child currently in care? Yes No

Please state the highest qualification of parents and/or guardians (e.g. GCSE or equivalent, A Level or equivalent, undergraduate degree, Master's degree, PhD)

Parent 1	
Parent 2	
Parent 3	
Parent 4	

Please state the current occupation of parents and/or guardians. If you are currently unemployed, please state the amount of time that you have currently been out of work.

Parent 1	
Parent 2	
Parent 3	
Parent 4	

Would your child like to go to university? Yes No Undecided Not discussed

If yes, please provide any further details that you can.

Does your child have any older siblings who are studying/ have studied at university?

Yes

No

Thank you for completing this survey

Please return this survey to the school as soon as it is complete.

Appendix D. Interview questions for senior teachers

- *Check that the participant information sheet and informed consent has been received and returned before beginning. Ask if the teacher has any questions. Ensure that the audio recording is on before beginning the interview.*
1. Thinking back to the beginning of the programme, what were you most hoping to achieve from the tutoring programme?
 2. What has been the most valuable aspect of the programme for the pupils who participated?
 3. Do you think that the tutoring has had a positive impact on pupils' attitudes to learning? If so, can you provide an example to support your answer?
 4. Do you think that the tutoring has had a positive impact on pupils' aspirations? If so, can you provide an example to support your answer?
 5. Do you expect that the tutoring will have a positive impact on pupils' attainment? If so, can you provide an example to support your answer?
 6. Thinking about the future of the programme, what we might we improve? Please consider how satisfied you have been with the following: the content, delivery, organisation, the student volunteers? Probe: would you like more involvement in the development or delivery in future years?
 7. In future years, we are hoping to expand the tutoring programme. Do you have any suggestions about how we might reach a larger number of pupils, or of any challenges we should be aware of?
 8. Finally, is there anything in particular that your pupils and school would like support on in the future? How might we better tailor our activities to benefit your students, particular with regard to attainment raising? Probes: subject area, intervention style.

Thank you very much for your time: do you have any questions or final comments for us?

Appendix E. Interview questions for subject teachers

- *Check that the participant information sheet and informed consent has been received and returned before beginning. Ask if the teacher has any questions. Ensure that the audio recording is on before beginning the interview.*
1. What has been the most valuable aspect of the programme for the pupils who participated?
 2. Do you think that the tutoring has had a positive impact on pupils' attitudes to learning? If so, can you provide an example to support your answer?
 3. Do you think that the tutoring has had a positive impact on pupils' aspirations? If so, can you provide an example to support your answer?
 4. Do you expect that the tutoring will have a positive impact on pupils' attainment? If so, can you provide an example to support your answer?
 5. Are there aspects of the tutoring programme that your pupils have found challenging? Please can you provide an example to support your answer?
 6. Thinking about the future of the programme, what we might we improve? Please consider how satisfied you have been with the following: the content, delivery, organisation, the student volunteers? Probe: would you like more involvement in the development or delivery in future years?
 7. Finally, is there anything in particular that your pupils would like support on in the future? How might we better tailor our activities to benefit your students, particular with regard to attainment raising? Probes: subject area, intervention style.

Thank you very much for your time: do you have any questions or final comments for us?

Appendix F. Student tutor post survey

Start of Block: Default Question Block

Evaluation of the University of York Maths and English Tutoring programme

This survey is intended for student volunteers who acted as tutors in the University of York Maths and English tutoring programme in 2017/18. This survey has been commissioned as part of a University of York study to better understand the impact of tutoring. Your answers in this survey will generate a better understanding of the positive and challenging aspects of tutoring - and how we might improve the scheme, including the training and support offered for tutors, for future years.

Participation in this survey is entirely voluntary. Data will be collected anonymously - so to say, you will not be asked to provide your name or contact details at any point. Please note that this means that it will not be possible to withdraw from the study once you have entered your survey response.

Completing the survey

This survey will ask about your experiences of being a tutor. Please answer each question as honestly as you can. All questions are optional.

On average, the survey takes 20 minutes to complete, depending on how many questions are relevant to you. There are five sections in the survey.

The information you provide will be treated in confidence and stored securely according to EU data protection regulation. This means that the information you provide will be used only for research purposes and will only be seen by the researchers. All data will be stored in password-protected files on secure University of York servers and encrypted disks during the life of the project. Anonymised data may be kept for up to seven years after completion of the evaluation.

The survey has received full approval from the ethics committee of the Department of Education, University of York. No outputs arising from the project will cite findings in a way that enables you to be identified, nor will such details be passed to any other individuals or organisations.

By beginning the survey, you acknowledge that you have read this information and agree to participate in this research.

If you have any questions about the survey or the project, please contact sally.hancock@york.ac.uk

Page Break

Q20 Section 1: starting the tutoring experience.

Which subject did you tutor in?

- Maths (1)
 - English (2)
 - Both (3)
-

Q32 Which school did you tutor in?

- York High School (1)
 - Joseph Rowntree (2)
 - Both (3)
-

Page Break

Q31

Which of these statements best describe why you volunteered to be a student tutor? Please select all that apply.

- To develop my subject knowledge by teaching (1)
 - To gain practical experience (2)
 - To develop particular skills (3)
 - To support progression into a teaching career after my degree (4)
 - To enhance my CV (5)
 - To see whether I enjoyed tutoring (6)
 - To work with young people (7)
 - To make a contribution to the local community (8)
 - Other (please specify) (9)
-

Q21 Which, if any, of the following skills did you hope to develop through tutoring? Please select all that apply.

- Communication (1)
 - Self-management (i.e. punctuality, preparation and planning) (2)
 - Problem-solving (3)
 - Resilience (4)
 - Social and cultural awareness (5)
 - Awareness of school environment (6)
 - Self-reflection (7)
 - Working collaboratively (8)
 - Working with young people (9)
 - Conveying ideas to others (10)
 - Following instructions (11)
 - Other (please specify) (12)
-

Page Break

Q22 Prior to your involvement in this programme, did you have any previous experience of tutoring?

Yes (1)

No (2)

Q23 If yes, was this tutoring:

Paid (1)

Voluntary (2)

Both (3)

Q24 If yes, can you please provide some details about the tutoring experience you had (e.g. context, subject, pupil ages and length of experience).

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Q25 Prior to your involvement in this programme, did you have any previous experience in an educational setting ? (e.g. classroom assistant, after-school club)

Yes (1)

No (2)

Q26 If yes, can you please provide some details about the experience you have (e.g. context, activity, pupil ages and length of experience).

End of Block: Block 1

Start of Block: Block 2

Q44 Section 2: preparing for the tutoring

To what extent did the training offered by the University prepare you for the tutoring?

I felt extremely well prepared (1)

I felt mostly well prepared (2)

I felt fairly unprepared (3)

I felt extremely unprepared (4)

Q39 Please offer some comments to explain your answer to the above.

Q40 Do you have any suggestions for how we might improve the training sessions in future years?

End of Block: Block 2

Start of Block: Block 3

Q30 Section 3: the tutoring experience

To what extent did you enjoy being a tutor? (Please focus your answer on your experience of the tutoring sessions, and working with the school pupils).

- Extremely enjoyable (1)
 - Somewhat enjoyable (2)
 - Not at all enjoyable (3)
-

Q43 Please briefly explain your answer to the question above.

Page Break

Q46 To what extent did the experience of being a tutor match your expectations?

- The experience was as expected (1)
 - The experience went better than expected (2)
 - The experience was more challenging than expected (3)
-

Q40 How did you find the workload of being a tutor?

- The workload was manageable (1)
 - The workload was mostly manageable (2)
 - The workload was difficult to manage (3)
-

Page Break

Q43 To what extent did you feel well supported when working in the schools?

- Extremely well supported (1)
 - Somewhat well supported (2)
 - Not well supported (3)
-

Q39 Please briefly explain your answer to the question above.

Q45

How would you rate the organisation of the tutoring programme?

- Extremely well organised (1)
 - Somewhat well organised (2)
 - Not well organised (3)
-

Page Break

Q42 Is there a particular highlight from participating in the tutoring programme that you would like to share?

Page Break

Q41 What were the most challenging aspects of participating in the tutoring programme?

End of Block: Block 3

Start of Block: Block 4

Carry Forward Selected Choices from "Which of these statements best describe why you volunteered to be a student tutor? Please select all that apply."



Q34 Section 4: reflections and the future

Earlier in the survey, you stated that you volunteered to be a tutor for the following reasons.

Please indicate the extent to which you feel you have achieved these aims by being a tutor.

	Achieved (1)	Somewhat achieved (2)	Not achieved (3)
To develop my subject knowledge by teaching (x1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To gain practical experience (x2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To develop particular skills (x3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To support progression into a teaching career after my degree (x4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To enhance my CV (x5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To see whether I enjoyed tutoring (x6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To work with young people (x7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
To make a contribution to the local community (x8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) (x9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

 Page Break

Carry Forward Selected Choices from "Which, if any, of the following skills did you hope to develop through tutoring? Please select all that apply. "



Q35 Earlier in the survey, you stated that you hoped to develop the following skills through tutoring.

Please indicate the extent to which you feel you have developed in these areas as a result of being a tutor.

	Well developed (1)	Somewhat developed (2)	Not developed (3)
Communication (x1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-management (i.e. punctuality, preparation and planning) (x2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving (x3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Resilience (x4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social and cultural awareness (x5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Awareness of school environment (x6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-reflection (x7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working collaboratively (x8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working with young people (x9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Conveying ideas to others (x10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Following instructions (x11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify) (x12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Page Break

Q36 Would you volunteer for the tutoring programme again?

Yes (1)

Maybe (2)

No (3)

Q37 Please briefly explain your answer to the question above.

Page Break

Q42 Would you recommend the tutoring programme to other students at the University of York?

Yes (1)

Maybe (2)

No (3)

Q45 Please briefly explain your answer to the question above.

Page Break

Q2 Section 5: more about you

These final questions are designed to offer some information about you. Please remember that these data are collected anonymously, and will only be accessed by the researcher.

What is your current level of study?

▼ Undergraduate degree (1) ... Other (e.g. PGCE) (4)

Q3 What is your current year of study?

▼ 1 (1) ... 4 + (4)

Q4 Which subject area do you currently study?

▼ Medicine (1) ... Other (please state below) (13)

Q5 Please state 'other' subject if appropriate.

Q18 Thinking back to when you were 14, which type of school did you attend?

- State secondary (1)
 - Selective state secondary (e.g. grammar school) (2)
 - State secondary special school (e.g. for children with disabilities or special needs) (3)
 - Private/independent school (4)
 - Don't know (5)
 - Other (6) _____
-

Q19 Which of the following statements applies to you?

- One or both of my parents/ guardians attended university and have a degree. (1)
 - My elder siblings were the first in my family to attend university. (2)
 - I was the first in my family to attend university. (3)
-

Page Break _____

Q17 This question is about the occupation of your parents. This includes natural parents, adoptive parents, step-parents, carers or guardians, who were most involved in your upbringing.

Thinking back to when you were 14 years old, which occupations did your parents have?

	Employment status	Job title
		(if applicable) (1)
Parent 1 (1)	▼ Employee (1 ... Prefer not to answer (7)	
Parent 2 (2)	▼ Employee (1 ... Prefer not to answer (7)	
Parent 3 (3)	▼ Employee (1 ... Prefer not to answer (7)	
Parent 4 (4)	▼ Employee (1 ... Prefer not to answer (7)	

 Page Break

Q11 Which gender are you?

Male (1)

Female (2)

Prefer not to say (3)

Q15 What is your ethnic group?

- White British (1)
- Irish Traveller (3)
- Gypsy or Traveller (4)
- Other White background (5)
- Black - African (6)
- Black - Caribbean (7)
- Black British (8)
- Other Black background (9)
- Asian or Asian British - Indian (10)
- Asian or Asian British - Pakistani (11)
- Asian or Asian British - Bangladeshi (12)
- Chinese (13)
- Other Asian background (14)
- Mixed - White and Black Caribbean (15)
- Mixed - White and Black African (16)
- Mixed - White and Asian (17)
- Other Mixed background (18)
- Other Ethnic background (19)
- Not known (20)
- Prefer not to answer (21)

Page Break

Q38 If you have any further feedback on the tutoring programme that you think would be helpful to the evaluation team, please share your thoughts below.

Thank you again for taking the time to participate in this survey, and to share your valuable insights.

End of Block: Block 5
