Evaluation of the ThinkHigher Uni Connect Programme, Coventry and Warwickshire, in Year 12 students

Academic Year 2020 – 21

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Executive summary

This evaluation was conducted during a difficult period due to the disruption caused by the Covid-19 pandemic. This had an impact on response rates, particularly at the start of the school year 2020, and also on the nature of the work undertaken by ThinkHigher during that period. However, the inclusion of a sizeable control group provides a baseline for comparison with the Uni Connect students and this work has pulled out a number of positive insights in relation to this group.

As ever, the small-group nature of the Uni Connect interventions poses an analysis challenge, with traditional statistical techniques being underpowered to detect small but potentially meaningful changes in behaviour. However, the descriptive analysis has unearthed interesting insights and has identified areas where additional work may prove fruitful in raising aspirations and attainment. Future evaluations should consider implementing multi-centre interventions (e.g. across multiple Uni Connect partnerships) in order to boost sample sizes in the Uni Connect group.

Key findings from the evaluation are as follows:

i. Data was collected at the start (baseline) and end (follow-up) of the academic year 2020/21 from Year 12 students (full year group) across a single sixth form college.

ii. Students were identified as Uni Connect students if they had participated in one or more activities delivered by ThinkHigher across the year. All other students formed a comparison group, referred to throughout as the 'control group'.

iii. Disruption due to the Covid-19 pandemic meant that students were not allocated to the Uni Connect cohort in the planned way and data was more challenging to collect due to lockdowns and pupil/teacher absences.

iv. A total of 98 students provided both baseline and follow-up data. Of these, 6 students (6.1%) were Uni Connect students.

v. Due to the disruption caused by the Covid-19 pandemic, a much higher number of students completed the questionnaire at the single follow-up time-point; n = 349 of which 30 (8.6%) were Uni Connect students.

Matched analysis: baseline and follow-up

vi. 5/6 (83.3%) of the Uni Connect students stated that they would like to go to university when they complete their studies at both baseline and follow-up. In the control group, this percentage decreased between baseline and follow-up, 71.7% vs. 66.3% respectively.

vii. A score was obtained for each student to broadly reflect their attitude to education; range 1 to 4 (Strand and Winston, 2008). The mean score at baseline was 3.19 (SD

0.32) compared to a mean score of 3.22 (0.34) at follow-up (n = 98), showing an overall positive attitude to education and a very slight improvement over time for these students.

viii. The improvement in mean attitude to education score for the 6 Uni Connect students between the start and end of the academic year was slightly more marked; 3.18 (SD 0.39) vs. 3.29 (SD 0.39) respectively.

ix. Self-esteem was measured using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). This ranges from 0 to 3 and a score less than 1.5 is indicative of low self-esteem in adolescents. Overall, there was a slight improvement in mean self-esteem score between the start and end of the academic year; 1.76 (SD 0.60) vs. 1.84 (SD 0.60) respectively.

x. The percentage of females reporting low self-esteem was higher at both the start and end of the academic year than the percentage of males doing likewise.

xi. The small number of students (n = 3) who identified their gender as 'other' or preferred not to say reported very low self-esteem at both the start and end of the academic year.

Cross-sectional analysis – summer 2021

xii. At the follow-up time-point in summer 2021, 73.3% of the Uni Connect students (22/30) said they would like to go to university when they leave compulsory education compared to 66.5% of the control group (212/319).

xiii. A gender difference was observed with females significantly more likely to say yes to going to university after completing their current studies than males (72.4% vs. 59.4% respectively, p = 0.013).

xiv. Four factors were found to be predictive of the aspiration to go to university: female gender, knowing someone who has been to university, qualification type and higher academic self-concept (i.e. an improved perception of oneself as a learner).

xv. In terms of qualification type, students studying for A levels only were significantly more likely to say yes to going to university than those studying for a BTEC qualification (either on its own or in conjunction with A levels, p < 0.001 and p = 0.010 respectively).

xvi. A positive perception of oneself as a learner (i.e. a high academic self-concept) stands out as an important factor in aspiring to go to university.

xvii. Of those who know someone who has been to university, 69.8% (203/291) would like to go to themselves compared to 53.5% (30/56) of those who don't know someone who has been to university or are not sure if they know someone.

xviii. For students who know someone who has been to university, the 'closeness' of relationship appears to influence the aspiration to go to university. For example, those with parents who have been to university are more likely to aspire to go university than those who know a friend. This highlights the importance of role models in aspiration building.

xix. Attitude to education was assessed at the end of the school year using the score based on the work of Strand and Winston (2008), range 1 to 4. Four separate subscales were also assessed in the same range; commitment to schooling, academic self-concept, home support for learning and disaffection/negative peers. The mean attitude to education score was almost identical for the Uni Connect students and the control students, 3.13 (SD 0.30) vs. 3.14 (0.32) respectively. This shows generally positive attitude to education.

xx. There were gender differences in attitudes to education, with females achieving significantly higher scores than male students across the main scale and all but one subscale (academic self-concept). This suggests that year 12 female students have a more positive attitude to education than their male counterparts, but females and males have a similar view of themselves as learners.

xxi. Students who identified as other or preferred not to state their gender had significantly lower mean scores compared to both males and females for the overall attitude to education score and the academic self-concept score.

xxii. Since academic self-concept was found to be predictive of aspiration to go to university (see point xiv above), the fact that students in the other/prefer not to say gender group report a significantly lower mean academic self-concept score than both males and female students highlights an area of concern with regard to the future aspirations of these students.

xxiii. Using the Rosenberg self-esteem scale (range 0 to 3), the mean score for the Uni Connect students was 1.80 (SD 0.52) compared to 1.83 (SD 0.54) for the control students, thus very similar.

xxiv. A total of 25.5% (52/204) of the female students were classified as having low self-esteem compared to 18% (24/133) of the male students and 66.7% (8/12) of those who identified as other or preferred not to say.

xxv.   The mean self-esteem score for those in the other/prefer not to say group was significantly lower than that of both the females and the males (p = 0.003 and p < 0.001 respectively).

xxvi.   Self-esteem was found to be positively correlated with academic self-concept. In other words, higher self-esteem is associated with a more positive perception of oneself as a learner.

xxvii. In light of the previous finding that a more positive academic self-concept improves aspiration to attend university, the fact that self-esteem is positively related to academic self-concept underlines the importance of positive self-esteem as a building block for aspiration raising.

The impact of Covid-19

xxviii. At the end of the academic year 2021, following lockdowns due to the Covid-19 pandemic, nearly all respondents, both Uni Connect and control, reported having access to the technology they needed to learn from home during the pandemic.

xxix.   Nearly all students agreed that they enjoy working on their own, with just 34 students (9.7%) disagreeing with this. There were no clear differences between the Uni Connect and control students.

xxx.   Students who do not enjoy working alone appear significantly less likely to aspire to go to university after completing their current studies compared to those who enjoy working alone (p = 0.023).

xxxi.   There is also strong evidence of a more negative attitude to education (as measured by a lower mean attitude to education score) in those who do not like working alone compared to those who do, as well as a more negative commitment to schooling (p = 0.006 in both cases).

xxxii. An important factor in the observations above appears to be gender. A total of 19/132 (14.4%) of the male students do not like working alone compared to 13/203 (6.4%) of the female students, a difference that is significant (p = 0.015).

xxxiii. A total of 59.9% (208/347) reported finding learning more difficult since the first Covid-19 lockdown in March 2020.

xxxiv. The percentage of Uni Connect students who found learning more difficult following the Covid-19 lockdown was slightly higher than that of the control group (66.7% vs. 59.3% respectively), but the difference was not significant (p = 0.432).

xxxv.   In terms of gender, 59.4% of females found learning more difficult since the first Covid-19 lockdown compared to 60.2% of males and 66.7% of those in the other/prefer not to say group. Although numbers in this latter group are too small to make inferences, this finding adds to the picture emerging from this report of increased struggle in this group of students.

1. Background

1.1   About ThinkHigher

ThinkHigher is the Coventry and Warwickshire Partnership of the Uni Connect Programme (http://www.thinkhigher.ac.uk/). As one of 29 partnerships within Uni Connect, it aims to reduce gaps in higher education participation between the most and least represented groups. ThinkHigher aims to support effective and impactful local collaboration between higher education providers working together with schools, colleges, employers and partners. One of its key objectives is to explore new ways of meeting local need and priority in order to achieve its overall aims of raising aspiration and attainment.

ThinkHigher represents a collaboration between partners including University of Warwick, Coventry University, Warwickshire College Group and North Warwickshire and South Leicestershire College, as well as the Local Enterprise Partnership and both Coventry and Warwickshire Councils.

1.2   About this report

As part of its aims to raise aspirations and reduce the gap in higher education participation between the most and least represented groups, ThinkHigher commissioned an evaluation of its outreach activities in local schools and colleges during the academic year 2020-21. A bespoke questionnaire was designed to collect views from students at the start and end of the academic year, and this report presents the findings from Year 12 students in a single sixth form college. The evaluation proceeded as scheduled but data collection was impacted by the disruption due to the Covid-19 pandemic. This also had an impact on the work of ThinkHigher during the year of evaluation.

1.3   The evaluation team

Dr Charlotte Price[1] was commissioned by ThinkHigher to undertake the design and analysis of this evaluation. Claire Anderson, ThinkHigher Manager and Uni Connect Programme Lead for ThinkHigher Partnership, oversaw the project, supported by Joanne Gaffney, Raising Aspirations Coordinator, including the collection of data within the college.

Charlotte Price is an applied statistician who has worked in various academic roles within higher education institutions across the West Midlands over a number of years. She currently works as a part-time statistician for **sigma**, Coventry University's Maths and Statistics Support Centre, as well as undertaking commissioned work at Warwick University. Charlotte enjoys finding innovative ways to teach quantitative methods to groups who experience anxiety related to maths and statistics. She is a Fellow of the Royal Statistical Society (RSS).

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2. Introduction

2.1   This evaluation

A questionnaire was administered to Year 12 students in a single sixth form college at the start and end of the academic year 2020-21. ThinkHigher Raising Aspirations Coordinators (RACs) oversaw this process in the college. Students were provided with an information sheet (Appendix B) and were asked to sign a consent form prior to both baseline and follow-up data collection. Ethics approval for the data collection and evaluation was granted by the Humanities and Social Sciences Research Ethics Committee at University of Warwick. In order to more robustly evaluate the ThinkHigher interventions, all Year 12 students were asked to complete a questionnaire, with those not identified as being part of the ThinkHigher cohort acting as a comparison (i.e. control) group. During this period, there remained substantial disruption due to the Covid-19 pandemic which impacted response rates, particularly during the baseline data collection at the start of the academic year between Sept and Dec 2020. Strategies for allocating students to the Uni Connect cohort were also disrupted, as was the general work of ThinkHigher. As such, in this study a student is referred to as a 'Uni Connect student' if they engaged with one or more ThinkHigher activities during the academic year 2020-21.

The baseline questionnaire consists of three main parts:

- Part 1: Your aspirations for the future
- Part 2: Your views about school or college
- Part 3: Your views about yourself

A fourth part 'Your reflections on the past year' was added to the follow-up questionnaire at the end of the academic year to ask the students to reflect on the past year in light of the Covid-19 pandemic. Both versions of the questionnaire can be found in Appendix B, including the consent form that the students were asked to sign before completing the questionnaires.

Part 1 focuses on aspirations and asks a few simple questions to ascertain the current course of study and whether the students would like to go to university when they leave compulsory education. In Part 2 of the questionnaire, students were asked to state their level of agreement with a number of statements relating to their views around education. The statements were taken from the work of Strand and Winston (2008) – further details are outlined in Section 3.3. The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used in Part 3 to assess the participants' level of self-esteem. Further details are outlined in Section 2.4.

2.1.1 Statistical analysis

In order to maximise data usage, simple imputation was used to replace a small number of missing values in the responses to Parts 2 and 3 of the questionnaire. This was done for participants with a maximum of two missing values on the Part 2 or Part 3 questions at

baseline and follow-up (where appropriate). Missing values were imputed using the mode of the non-missing entries for the relevant questionnaire item across the full data set. This simplistic approach can lead to potential bias, but since care was taken to restrict imputation to those with only a small number of missing values, this risk has been minimised. Following imputation, a complete-case approach was used to analyse the data. This means that any record with a remaining missing value on one or more data items (variables) was deleted from the analysis.

> **What is imputation?**
> The process of estimating, and therefore replacing, missing values in a data set using other known information. This is done to avoid discarding cases (records) that contain missing values, thus maximising data usage and improving accuracy in the analysis.

During the evaluation, each participant was assigned a unique ID number and this was used to match baseline and follow-up responses for analysis. Descriptive statistics were used to explore the data including means/medians (averages) with standard deviations/interquartile ranges (measures of spread), where relevant, and frequencies with percentages. Graphs were used to explore and visualise the data including bar charts, line graphs, histograms and box plots. Statistical hypothesis tests were used to investigate the data including t tests, chi-squared tests and Analysis of Variance (ANOVA). Linear regression and logistic regression were both used to explore relationships within the data. Further details of these methods are provided throughout the report.

> **What are hypothesis tests and why do we use them?**
>
> The statistical tests mentioned above (e.g. t tests, chi-squared tests etc.) are all examples of hypothesis tests. When we collect data such as responses to questionnaires, we gain insights into the characteristics and behaviour of the study participants, i.e. those who have responded to the questionnaire. However, while this in itself is interesting, particularly when conducting outreach work with specific schools, we want to use these insights to make inferences about the wider population from which our study participants were selected.
>
> A hypothesis test provides evidence (not proof) about whether an effect we see in our study participants represents a real effect in the wider population of interest. For example, if we find that, on average, a young person's self-esteem changes between two time-points, such as the start and end of the school year, it is important to understand whether this is likely to reflect a trend across all similar young people. Hypothesis tests can help to shed light on this.

It is important to note that while statistical tests have been used to explore the data in this evaluation, the number of Uni Connect students in the study is small. This poses an analysis

challenge with traditional statistical techniques being underpowered[2] to detect small, but potentially meaningful, effects. As such, while statistical techniques have been used freely throughout this report, a greater emphasis is placed on descriptive analysis and the unearthing of potentially positive insights in relation to the Uni Connect cohort.

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[2] An underpowered study does not have a large enough sample size to detect true effects of interest.

3. Matched analysis: baseline and follow-up

After removing a small number of records due to missing data, and only including those who gave consent for their data to be analysed, a total of 98 students provided both baseline and follow-up questionnaire responses. Of these, 6 participants (6.1%) were Uni Connect students and 5 of those were female. Overall, 62 of the respondents were female (63.3%), 33 were male (33.7%) and 3 identified as 'other' or preferred not to state their gender. While an analysis of the Uni Connect cohort will be included here, it should be kept in mind that the sample size for this group is very small.

3.1 Current qualifications

As shown in Table 1, the students were predominantly studying for A level qualifications, with a number of students also undertaking a BTEC qualification. Views about the importance of doing well in their current studies were consistently positive in both the Uni Connect and control students. At baseline, 4 of the Uni Connect students said it was very important to do well in their current studies, and 2 said it was important. At follow-up, all 6 Uni Connect students said that it was very important. In the control group, at baseline 27 students (29.3%) said it was important to do well in their current studies and 65 said it was very important (70.7%). This remained stable at follow-up where 28 students (30.4%) said it was important, 62 (67.4%) said very important and just 2 (2.2%) students said it was not very important.

Table 1: Qualifications by group as specified at baseline*; n=98

	Uni Connect		Control	
	Count	%	Count	%
A levels only	3	50.0	50	54.3
BTEC only	1	16.7	5	5.4
A levels and BTEC	2	33.3	33	35.9
Other (e.g. GCSEs)	0	0.0	4	4.3
Total	6	100.0	92	100.0

Note: a small number of students changed qualifications over the period of the evaluation

3.2 Aspirations for the future

When asked whether they would like to go to university after completing their current studies, 5 of the 6 Uni Connect students (83.3%) said yes at both baseline and follow-up (Figure 1). It should be noted that one of the students who said yes at baseline was uncertain at follow-up and, similarly, one of the students who was uncertain at baseline said yes at follow-up. In comparison, 71.7% of the control students (n=66) said they would like to go to university when asked at baseline compared to 66.3% (n=61) who said yes when asked at follow-up (Figure 2).
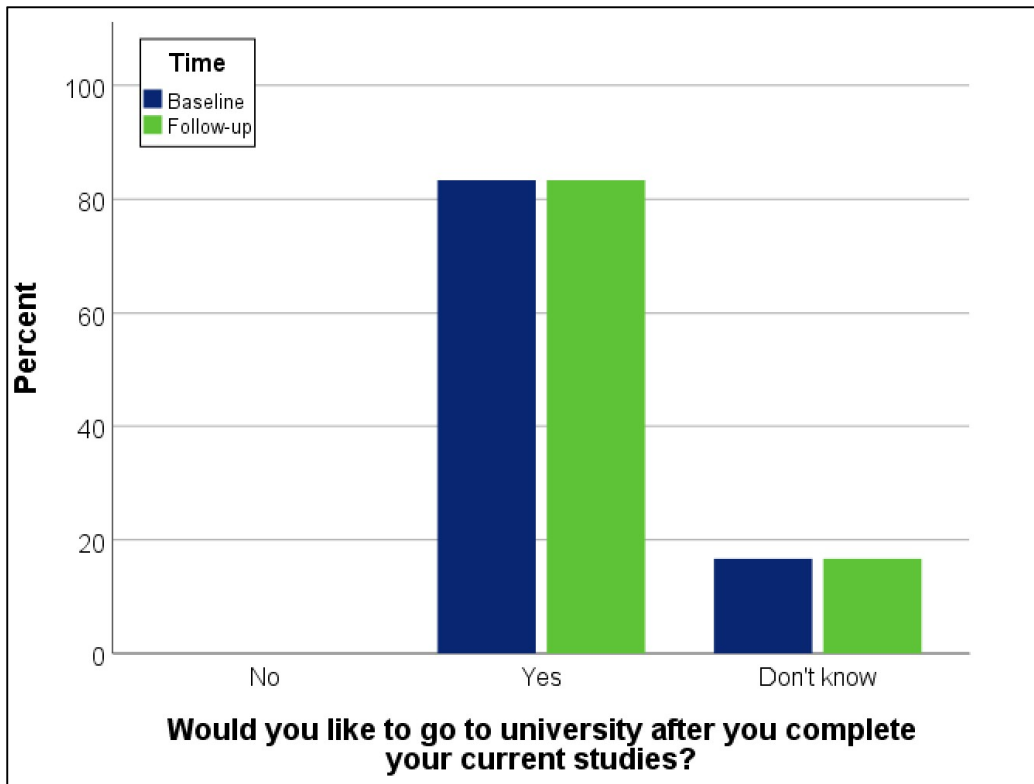
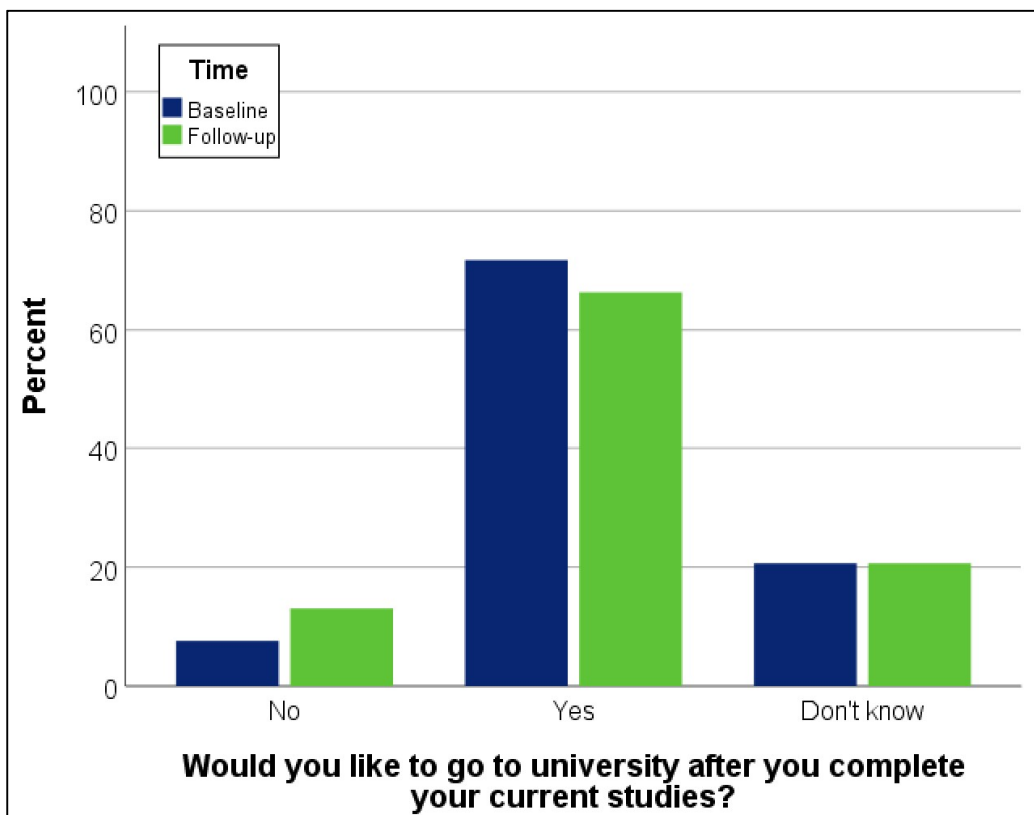**Figure 1:** Post-18 intentions regarding university; Uni Connect students (n=6)

Figure 2: Post-18 intentions regarding university; Control students (n=92)

Four of the six Uni Connect students (66.7%) stated that they know someone who has been to university compared to 77 (83.7%) of the control students. However, the number of Uni Connect students is too small to investigate connections between this and other responses such as the aspiration to go to university. These ideas will be discussed further in Section 4.

3.3   Views about education and school

The questions in Part 2 of the questionnaire were taken from the instrument designed by Strand and Winston (2008) to measure educational aspirations in inner city schools (see Appendix B). Not all of the questions from the original instrument have been used, but four subscales were selected focusing on attitudes and commitment to education. They are:

Commitment to schooling
- Finishing school is important to achieve my career choice
- If I work I can succeed in life
- Doing well at school is important to me
- I always attend school or college unless I'm ill
- I work hard at school or college

Academic self-concept
- If I get stuck, I can usually work things out
- I am good at solving problems
- I feel good about myself
- I know how to be a good learner
- I am good at most subjects at school or college
- I am good at working with others

Home-support for learning
- Family members/carers help me with homework
- Family members/carers reward me if I do well at school or college
- Family members/ carers often ask me how I'm doing at school or college
- I have a quiet place in which to do school or college work
- Family members/carers usually come to open evenings/reviews

Disaffection/negative peers
- I want to leave school or college as soon as possible and get a job
- I often get bored in class
- My friends distract me from paying attention in school or college
- My friends laugh at those who do well at school or college

The responses to each statement are measured on a 4-point Likert scale: strongly agree, agree, disagree, strongly disagree, thus encouraging a definite opinion without providing a neutral option. The categories were coded as 4, 3, 2, 1 respectively, to tally a higher score

with stronger agreement, apart from the disaffection/negative peers subscale which was reverse coded (i.e. 4 becomes 1, 3 becomes 2 etc). This ensures that a high score on each subscale represents a more positive attitude. Although not explicitly suggested by Strand and Winston (2008), an overall score was derived for each respondent by taking the mean of the responses across all statements (20 in total), representing a student's attitude to education. Scores were derived in a similar way for the four subscales. Broadly speaking, the higher the score, the more positive the attitude to education, and scores range from 1 to 4 in line with the original Likert-scale.

3.3.1 Comparison of baseline and follow-up attitudes to education

With so few students in the Uni Connect group (n=6), statistical tests are underpowered[3] to detect meaningful differences and effects in the population of interest. As such, a descriptive and largely visual exploration of the data is presented here, which hints at some positive insights.
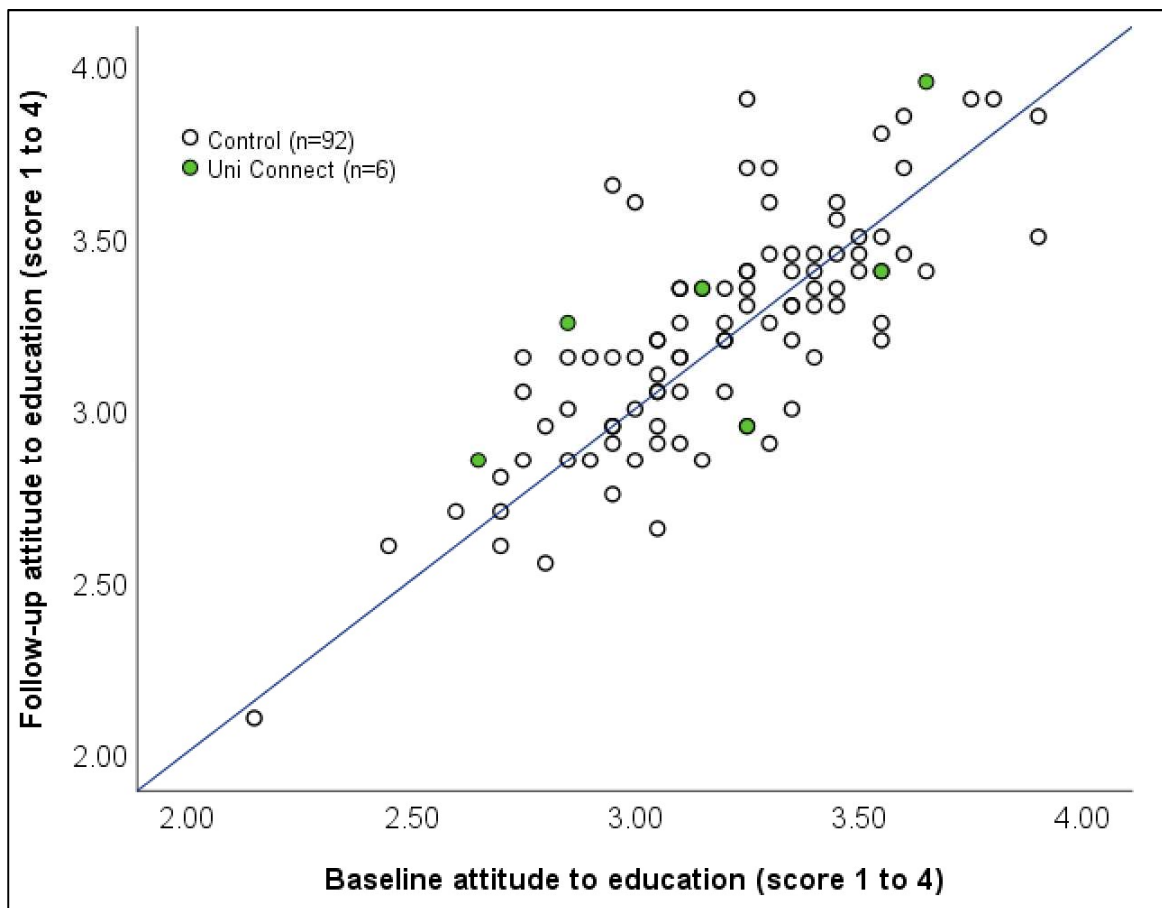

Figure 3: Baseline and follow-up scores to measure attitude to education (n=98). The blue diagonal line indicates the point where baseline and follow-up scores are equal.

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[3] The power of a statistical hypothesis test is the probability that the test will pick up an effect, such as a difference in means, given that the effect of interest really does exist in the population of interest. A number of factors influence the power of a test, including sample size. If the sample size is too small, true effects are harder to detect and the test is said to be 'underpowered' to detect the effect of interest.

Figure 3 on the previous page shows the follow-up attitude to education scores plotted against the baseline scores, split by group (Uni Connect or control). The blue diagonal line indicates the position where baseline and follow-up scores are equal. Observations that lie above this line correspond to respondents whose score increased between baseline and follow-up, thus suggesting an improved attitude to education. It can be seen that this is the case for four of the six Uni Connect students and a good number of the control group. There is a strong positive correlation between the baseline and follow-up scores, Pearson's correlation coefficient 0.78 (95% confidence interval 0.69 to 0.85).

There is a small increase in mean attitude to education score between baseline and follow-up for both groups. However, this is more marked for the Uni Connect students where the mean score increased from 3.18 (SD 0.39) to 3.29 (SD 0.39) as compared to an increase from 3.19 (SD 0.32) to 3.22 (SD 0.34) for the control group. This comparison can be seen in Figure 4 below.
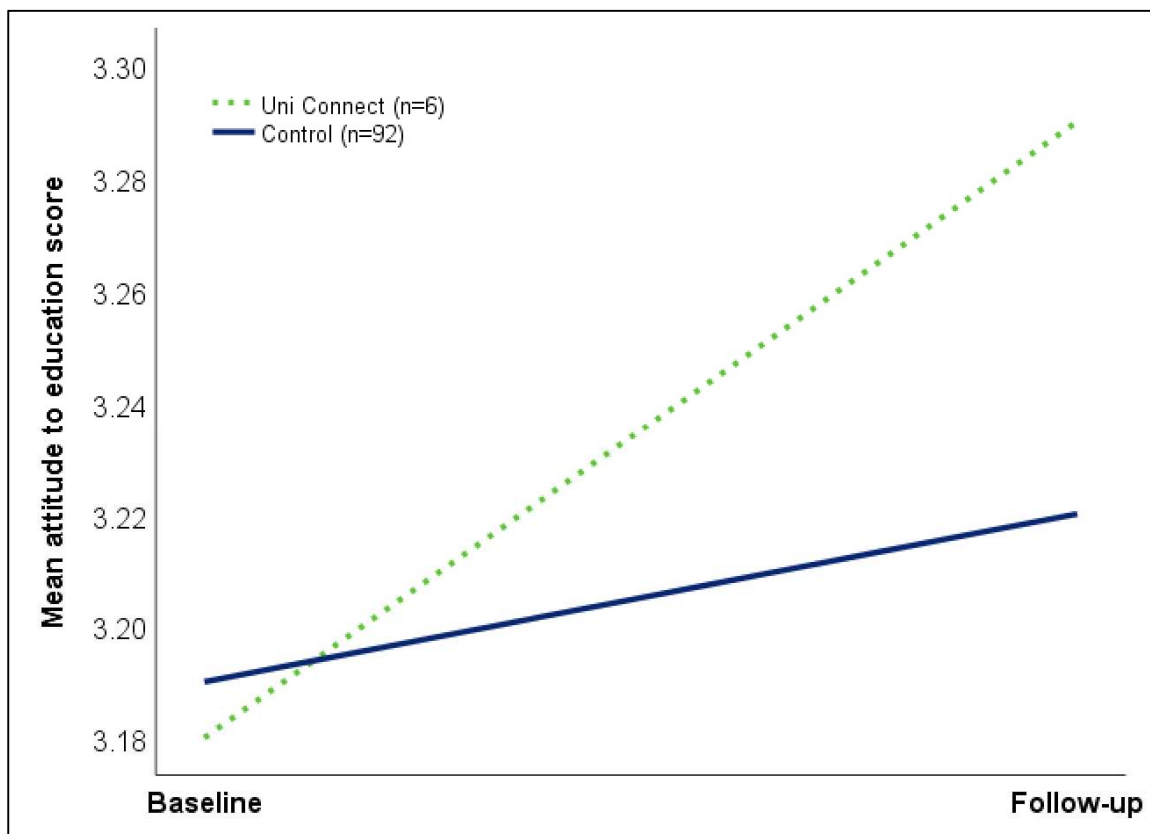

Figure 4: Mean attitude to education scores at baseline and follow-up for the Uni Connect (n=6) and control groups (n=92). A higher score implies a more positive attitude to school/education.

Figures 5 and 6 over the page provide a closer look at the distributions of the attitude to education scores for the Uni Connect and control groups respectively. The increase in mean for the Uni Connect cohort can be observed in Figure 5 by noticing that the peak of the black curve has shifted to the right in the follow-up plot compared to the baseline plot, as

indicated by the grey-dashed lines and arrow. This is not so marked in Figure 6 for the control students.
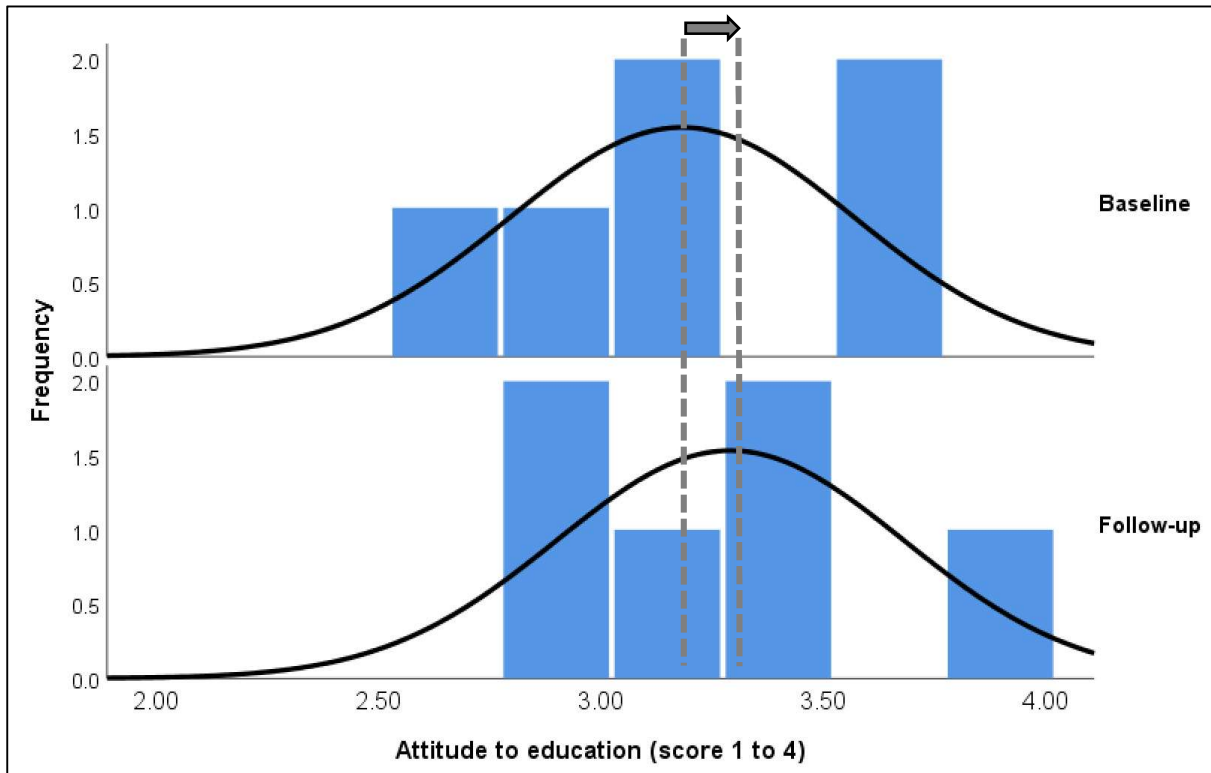

Figure 5: Distributions of attitude to education scores at baseline and follow-up for Uni Connect group (n=6); Strand and Winston (2008)
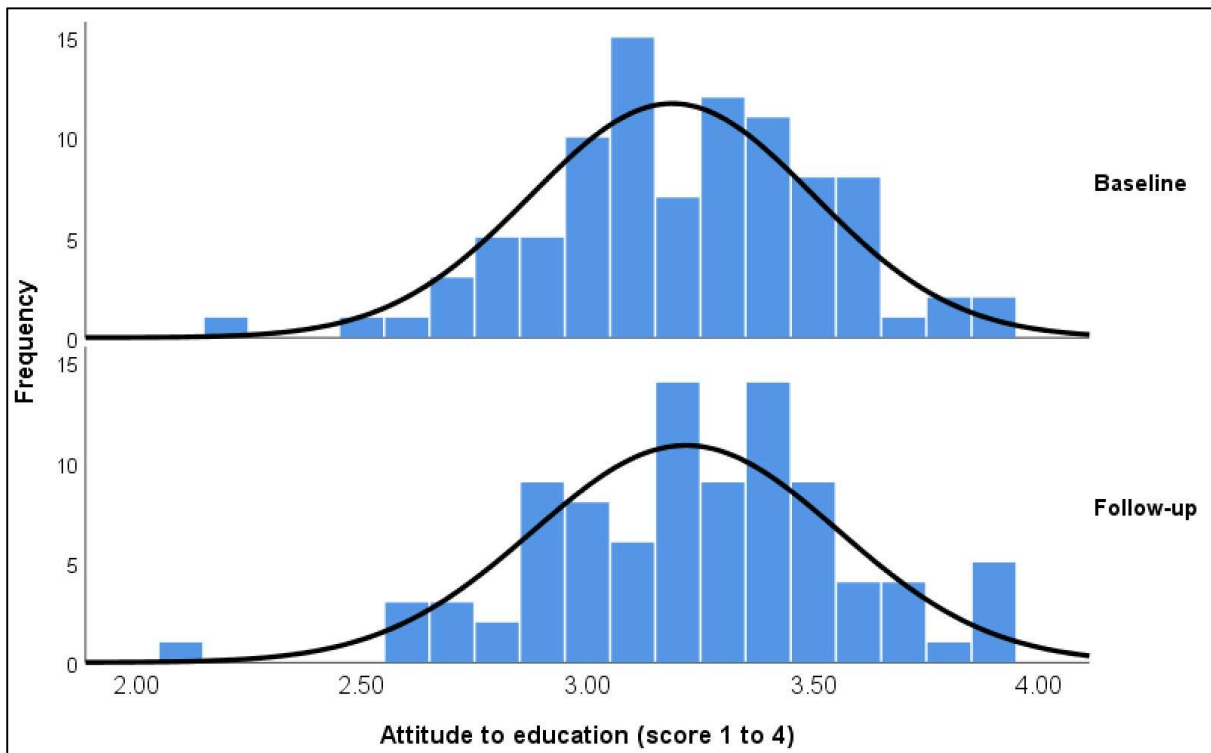
Figure 6: Distributions of attitude to education scores at baseline and follow-up for control group (n=92); Strand and Winston (2008)

3.3.2 Changes in scores across attitude to education subscales

Figures 7 to 10 show the changes in mean attitude to education scores between baseline and follow-up for the four subscales, namely commitment to schooling, academic self-concept, home-support for learning and disaffection/negative peers. Again, it is important to be mindful of the small sample size in the Uni Connect cohort (n=6), but interesting nonetheless to observe some promising trends. It can be seen in Figure 7 that the commitment to schooling mean score increases between baseline and follow-up for the Uni Connect cohort from 3.57 to 3.67 compared to a slight decrease from 3.56 to 3.51 for the control group. This suggests, at least for this very small group of Uni Connect students, that, on average, their commitment to school has improved over the course of the academic year.
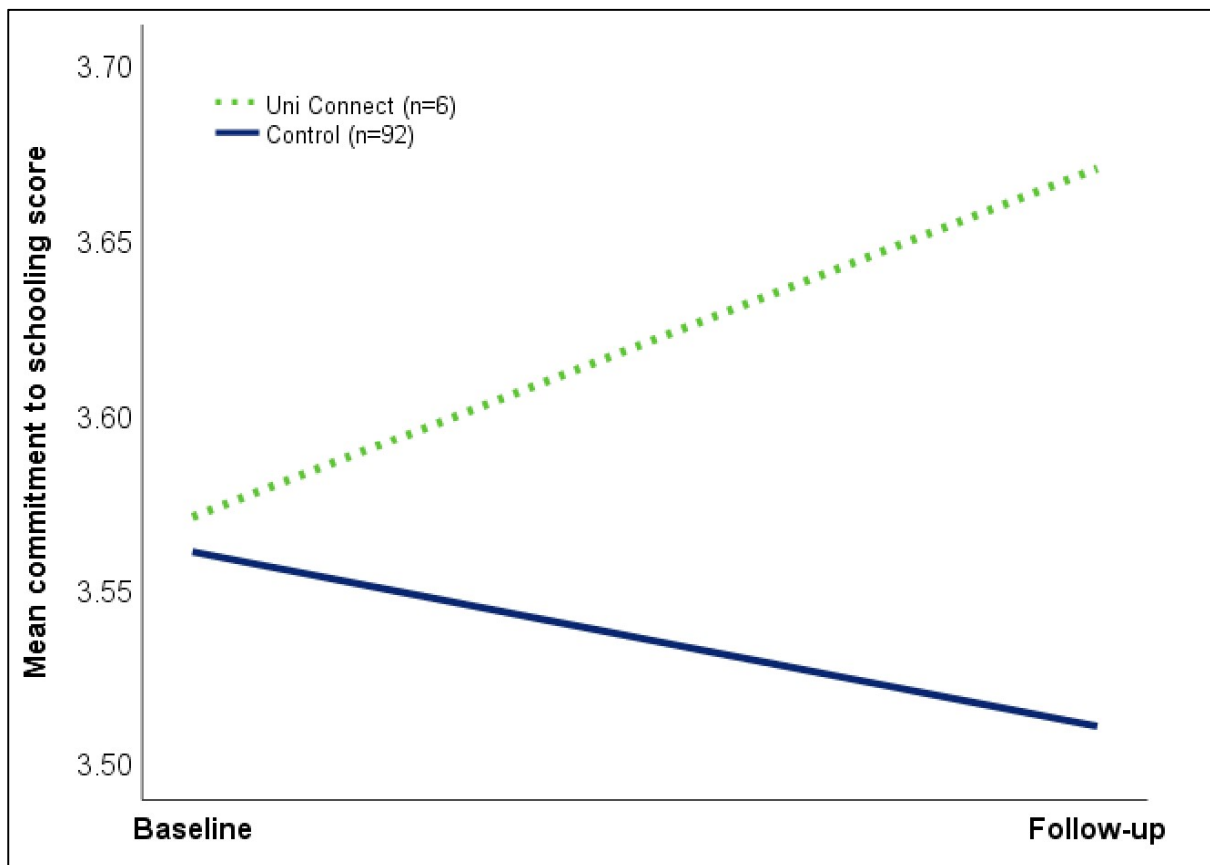

Figure 7: Mean commitment to schooling scores at baseline and follow-up (n=98)

Academic self-concept refers to "*self-evaluations in relation to success as a learner and problem solver*" (Strand and Winston, 2008; p9). As shown in Figure 8 on the next page, there is a positive change in mean score for both the Uni Connect and the control groups,

but the increase is more marked for the Uni Connect students. The mean academic self-concept score for the Uni Connect group increases from 3.03 to 3.33 compared to an increase from 3.05 to 3.16 for the control group. These observations reflect improved perceptions of themselves as learners over the course of the academic year.
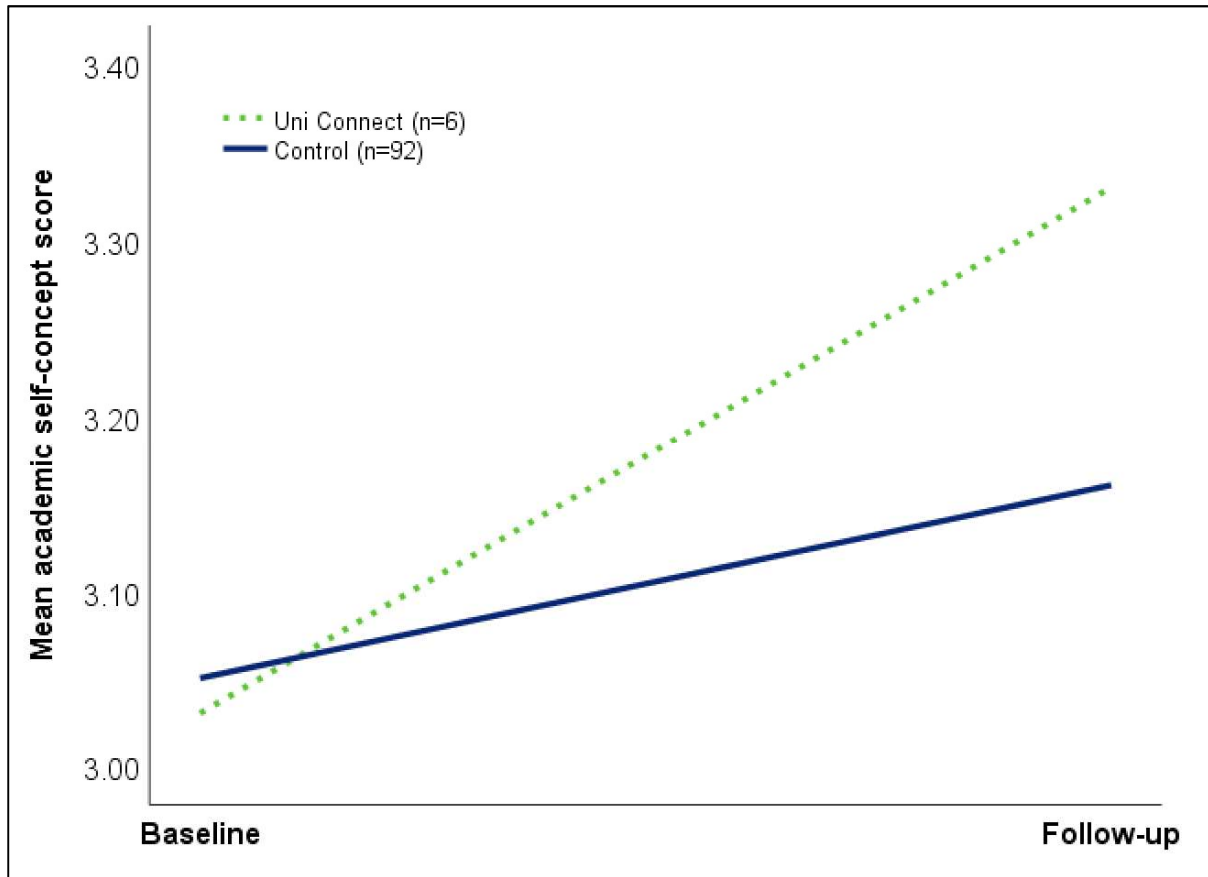

Figure 8: Mean academic self-concept scores at baseline and follow-up (n=98)

Figure 9 over the page shows that students' perceptions of home support have become very slightly more negative between the start and end of the year in both groups, with the Uni Connect students having a more negative view of this at both baseline and follow-up than the control group. The Uni Connect score decreased from 2.93 to 2.90 compared to a decrease from 3.08 to 3.06 for the control students, very modest changes. Mean scores on the home support subscale are generally slightly lower than those on the other subscales, but this seems to be driven by disagreement with the statement, "Family members/carers help me with homework". A total of 61/98 (62.2%) of the students disagreed with this at both baseline and follow-up. For students in year 12, it is perhaps not surprising that parents don't help with homework in a practical way and this is thus not necessarily a bad thing, especially if this indicates that the students feel like independent learners.

The disaffection/negative peers subscale measures feelings of boredom in class and general negative feelings towards school. The Uni Connect students showed no change over the year, with a mean score of 3.25 at both baseline and follow-up. In contrast, the control

students had more negative feelings overall which improved slightly over time from a mean score of 3.06 at baseline to 3.14 at follow-up (see Figure 10 on the next page).
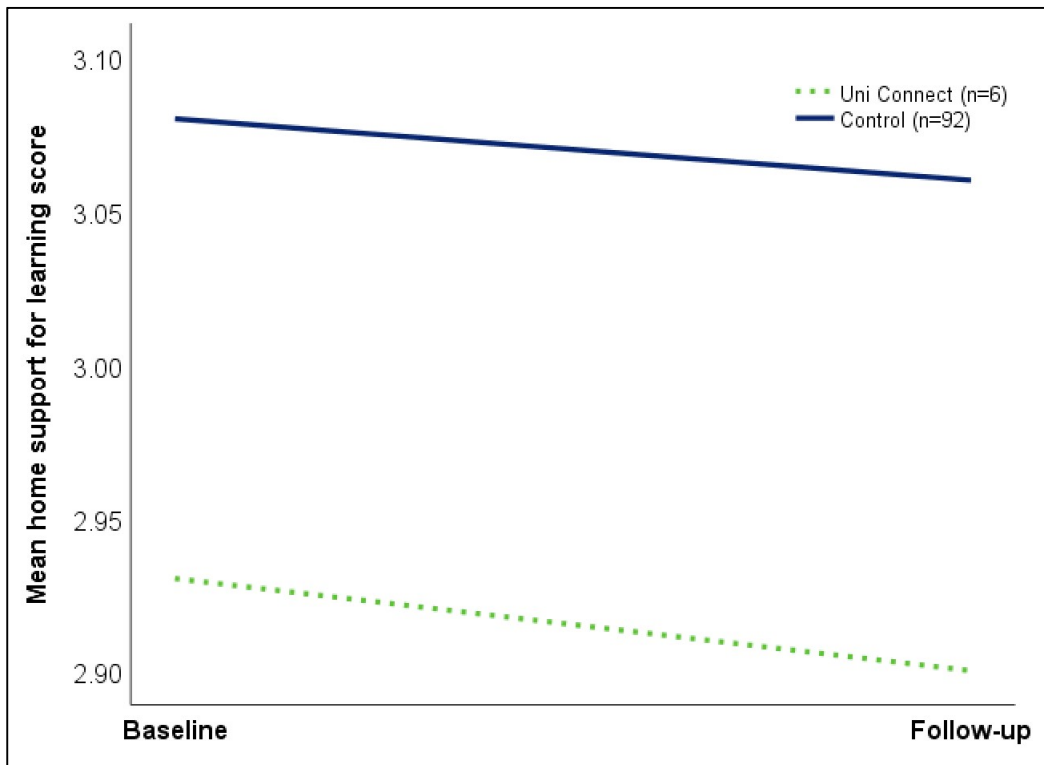

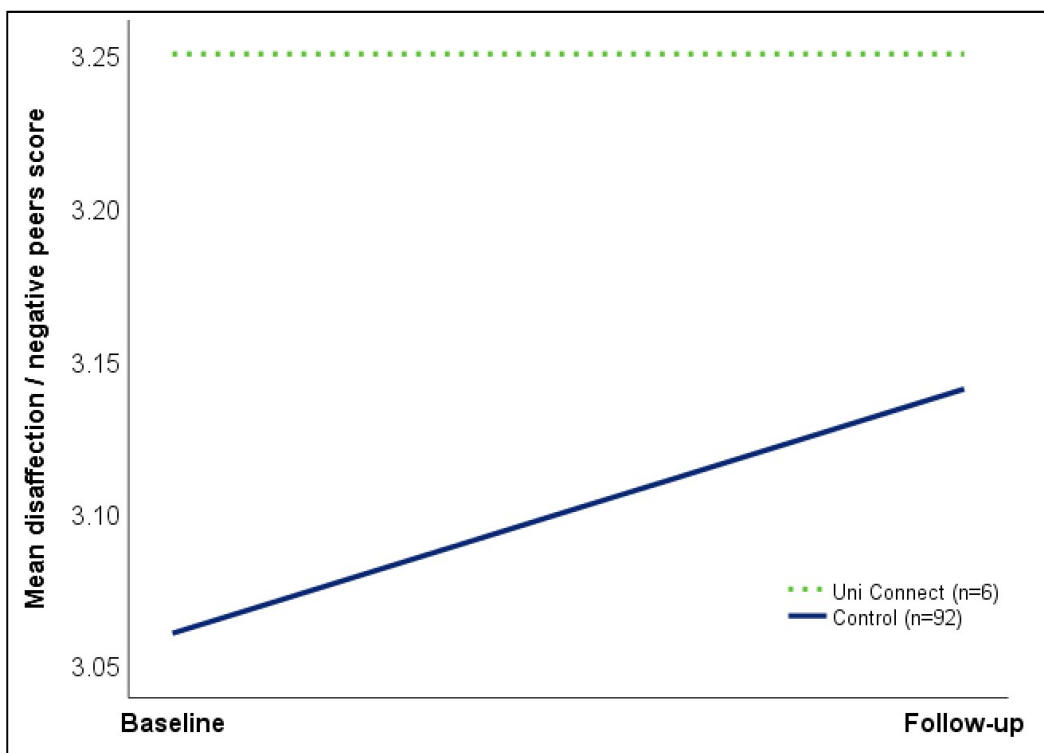**Figure 9**: Mean home support for learning scores at baseline and follow-up (n=98)

Figure 10: Mean disaffection/negative peers scores at baseline and follow-up (n=98)

3.4   Self-esteem

Self-esteem was assessed at baseline and follow-up using the Rosenberg Self-Esteem Scale (Rosenberg, 1965). The scale consists of ten questions, five positively worded and five negatively worded, and responses are given on a 4-point Likert scale (strongly agree, agree, disagree, strongly disagree). For this scale, the categories are coded as 3, 2, 1 and 0 respectively (and reversed for the negatively-worded questions). Although the sum of the scores for each question is often used in practice to determine overall self-esteem levels, the mean score was used in this evaluation to correspond more closely with the strategy for assessing attitudes to education. A score of 1.5 or lower is, for the purpose of this evaluation, deemed to indicate low self-esteem in adolescents (Isomaa et al, 2012)[4].

Overall, the mean self-esteem score at baseline was 1.76 (SD 0.60) and at follow-up was 1.84 (SD 0.59). This shows a small, but not quite statistically significant, improvement in mean self-esteem between the two time points (p = 0.066)[5]. Tables 2 and 3 show the mean self-esteem scores at baseline and follow-up, split by group and gender respectively, as well as the percentage of students with low self-esteem.

Table 2: Descriptive statistics for self-esteem score by group and time-point (n = 98)

	Baseline		Follow-up	
	Uni Connect (n=6)	Control (n=92)	Uni Connect (n=6)	Control (n=92)
Mean	1.77	1.76	2.02	1.83
Std deviation	0.64	0.60	0.70	0.59
% (n) with low self-esteem (i.e. score < 1.5)	33.3% (n=2)	25.0% (n=23)	33.3% (n=2)	26.1% (n=24)

Table 3: Descriptive statistics for self-esteem score by gender (female or male only) and time-point (n = 95)

	Baseline		Follow-up	
	Female (n=62)	Male (n=33)	Female (n=62)	Male (n=33)
Mean	1.73	1.92	1.87	1.85
Std deviation	0.57	0.54	0.56	0.63
% (n) with low self-esteem (i.e. score < 1.5)	25.8% (n=16)	18.2% (n=6)	27.4% (n=17)	18.2% (n=6)

* 3 students who identified as other or preferred not to state their gender have been excluded from this table due to the small sample size

[4] In the study by Isomaa et al (2012), the Rosenberg questions were measured on a scale from 1 to 4 and the sum taken. In this report we have used a scoring system from 0 to 3 in line with other studies and have taken the mean. As such, a cut-point of 25 to indicate low self-esteem in adolescents according to Isomaa et al (2012) is equivalent to a sum of 15 or a mean of 1.5 on the scale used in this study.

[5] Paired t test: t = 1.856, df = 97, p = 0.066

There is an increase in mean self-esteem score for both the Uni Connect and control groups between baseline and follow-up, with the increase being slightly more marked for the Uni Connect group (Table 2). Again, though, it is important to note for context the very small sample size in this group as well as the fact that 5 of the 6 Uni Connect students were female. The impact of gender will be investigated in more depth in Section 4.

Males showed a slightly higher mean self-esteem score at baseline compared to females, but this difference is not statistically significant (p = 0.116)[6]. The mean scores were roughly the same at follow-up (Table 3). It is interesting to note that around 26% of the female students reported low self-esteem at baseline and follow-up compared to 18% of the male students. Three students identified as 'other' or preferred not to state their gender and all reported very low self-esteem at both baseline and follow-up, below the cut-point of 1.5. Although the sample size is very small, this stands out as an important observation.
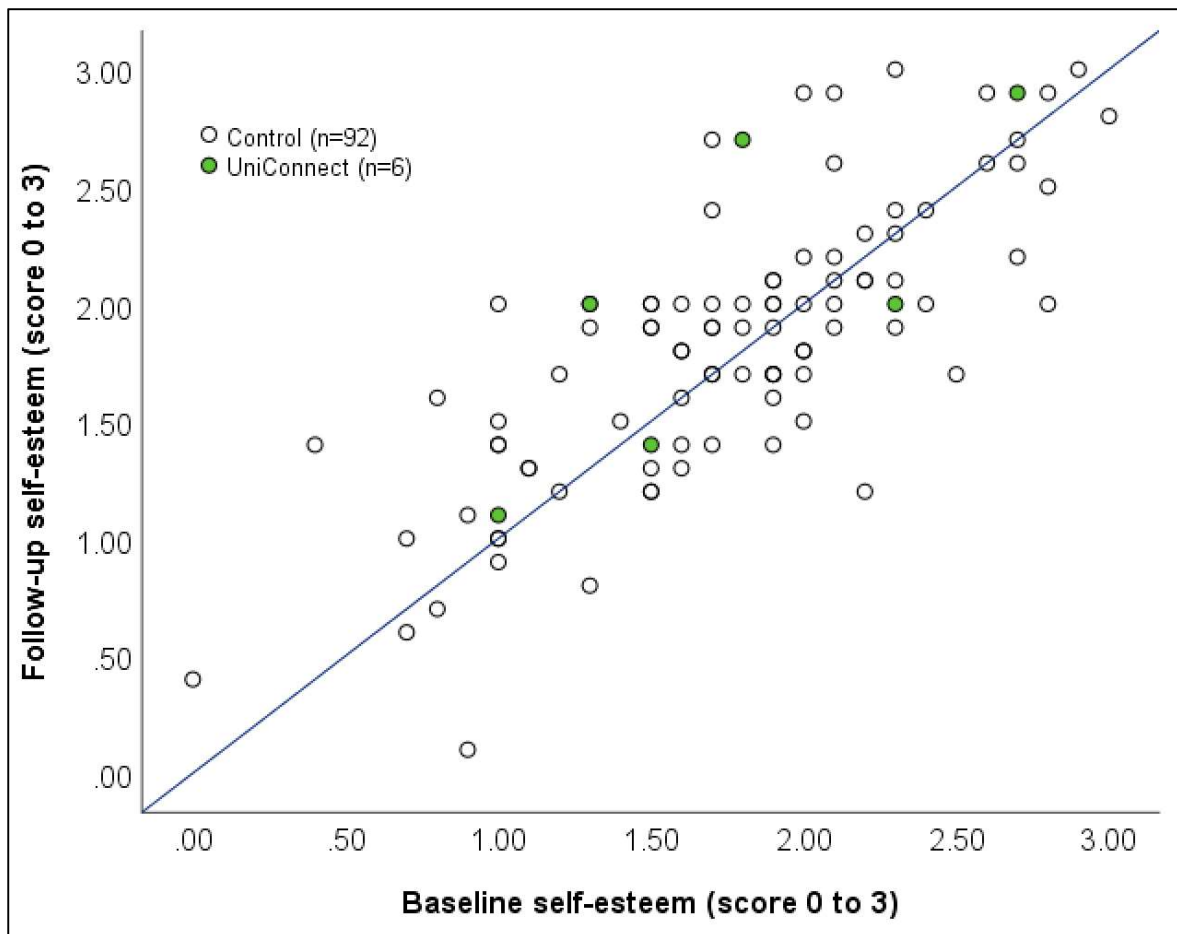

Figure 11: Mean self-esteem scores at baseline and follow-up (n=98). The diagonal line indicates the point where baseline and follow-up scores are equal.

Figure 11 shows a plot of the self-esteem scores at baseline and follow-up with the blue diagonal line showing where baseline and follow-up scores are equal. Points above the blue

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[6] Independent samples t test: t = 1.587, df = 93, p = 0.116

line represent an improvement in self-esteem and it can be seen that 4 of the 6 Uni Connect students fall into this group. These are the same 4 students whose attitude to education scores also increased between the start and end of the academic year.

3.4.1 Self-esteem and attitude to education

The relationship between self-esteem and attitude to education was investigated using Pearson's correlation and simple linear regression. The analysis in this section explores simple relationships since the number of students who provided both baseline and follow-up data is moderate. A more involved analysis is undertaken in Section 4.

The scatter plots on page 24 (Figure 12) show the association between the attitude to education scores and the self-esteem scores at both baseline and follow-up. As we can see in the plots, there is a positive association between self-esteem and attitude to education. In other words, higher self-esteem is associated with a more positive attitude to education in general. This provides evidence of the importance of self-esteem in education, an observation that will be investigated in more depth in the next section.

Pearson's correlation coefficient between these two scores is 0.60 at baseline and 0.61 at follow-up, thus showing a moderate positive correlation between them. The fitted regression lines are shown in Figure 12 (the diagonal blue lines). At both baseline and follow-up, a one-point increase in self-esteem score (measured on the scale 0 to 3) results in an average increase in attitude to education score of just over 0.3 points (measured on the scale 1 to 4)[7].

> **What have we learned about aspirations towards university and attitudes to education across the academic year 2020-21?**
>
> - Five of the six Uni Connect students aspire to go to university after completing their current studies.
>
> - In the control group, 71.7% of students aspired to go to university at the start of the academic year compared to 66.3% at follow-up.
>
> - Attitudes to education were, on average, improved for all students between the start and end of the academic year 2020-21, but the improvement was slightly more marked for those in the Uni Connect group.
>
> - Similarly, there was an improvement in the mean commitment to schooling score for the small group of Uni Connect students compared to a slight worsening in the control group.

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[7] Fitted regression equations:
Baseline attitude to education score = 2.630 + 0.316*baseline self-esteem score
Follow-up attitude to education score = 2.585 + 0.347*follow-up self-esteem score

- Overall, self-esteem was slightly improved, on average, between the start and end of the academic year.

- The percentage of females reporting low self-esteem was higher at both the start and end of the academic year than the percentage of males.

- The small number of students who identified their gender as other or preferred not to say reported very low self-esteem at both the start and end of the academic year.

- Self-esteem is positively correlated with attitude to education – this relationship will be explored further in the next section.
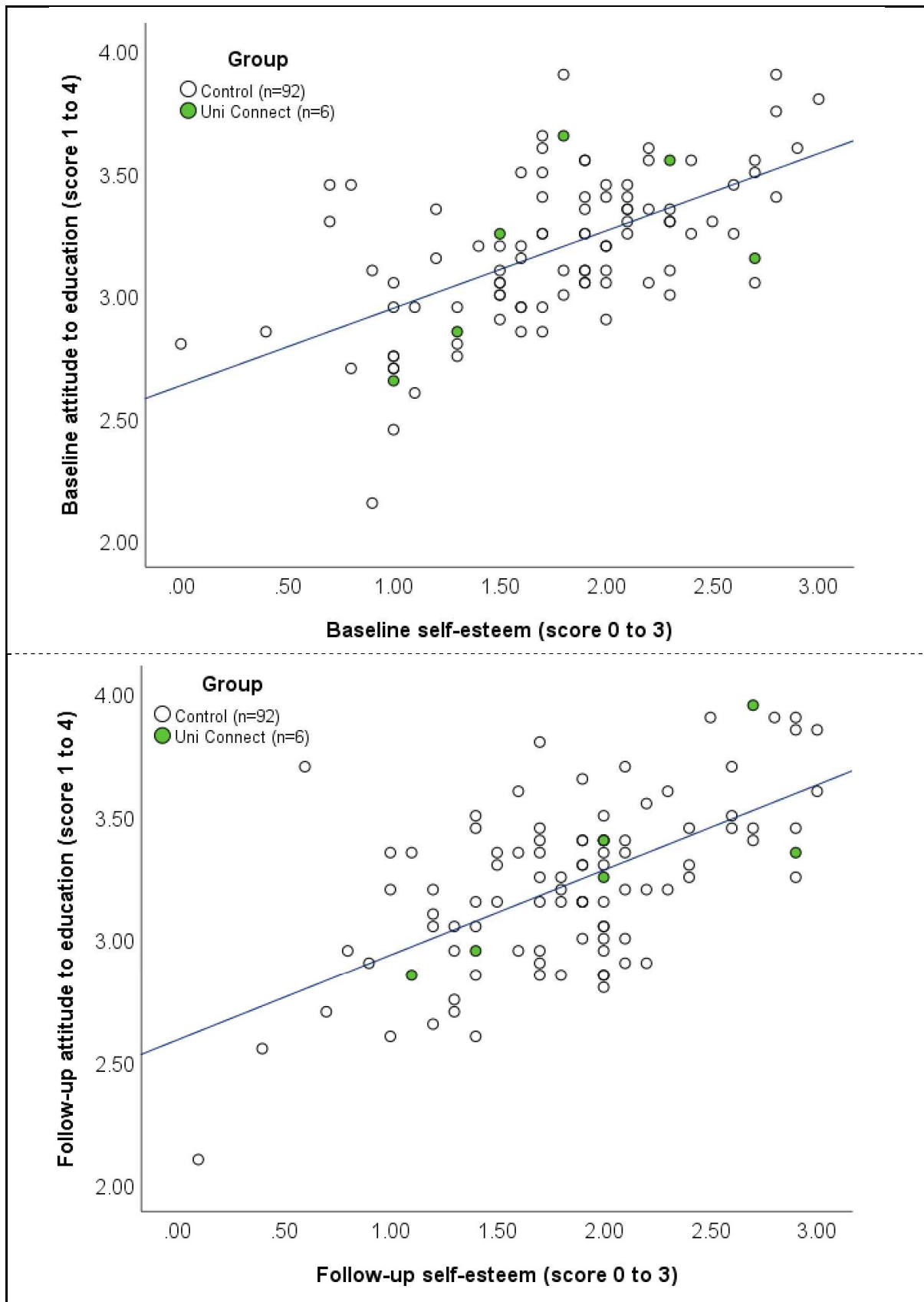
Figure 12: Attitude to education score against self-esteem score at baseline and follow-up respectively with linear regression lines superimposed (n=98)

4. Cross-sectional analysis - summer 2021

The impact of Covid-19 meant that the number of questionnaire respondents in summer 2021, the intended 'follow-up' data collection point, was far greater than the number of respondents at baseline. As such, the data at this time point is explored as a standalone analysis to obtain a snapshot of the students' views at the end of Year 12.

After removing a small number of records due to missing data, and only including those who gave consent for their data to be analysed, a total of 349 students provided data in summer 2021. Of these, 30 participants (8.6%) were Uni Connect students. Overall, 204 students (58.5%) were female, 133 (38.1%) were male and 12 students (3.4%) identified as 'other' or preferred not to state their gender.

4.1 Aspiration to go to university after leaving compulsory education

Table 4: Summary information and aspirations for Uni Connect students (n = 30) and the control group (n = 319)

Part 1 questions	Uni Connect		Control	
	Count	%	Count	%
What qualifications are you currently studying for?				
A levels only	17	56.7	141	44.2
BTEC only	3	10.0	36	11.3
A levels and BTEC	8	26.7	125	39.2
Other (inc. GCSEs and multiple qualifications)	2	6.7	15	4.7
(Missing)	0	0.0	2	0.6
When you leave compulsory education, would you like to go to university?				
Yes	22	73.3	212	66.5
No	1	3.3	37	11.6
Don't know	7	23.3	69	21.6
(Missing)	0	0.0	1	0.3
How important do you think it is to do well in your current studies?				
Very important	23	76.7	202	63.3
Important	6	20.0	110	34.5
Not very important	1	3.3	5	1.6
Not at all important	0	0.0	0	0.0
(Missing)	0	0.0	2	0.6
Do you know anyone who has been to university?				
Yes	19	63.3	272	85.3
No	9	30.0	36	11.3
Not sure	2	6.7	9	2.8
(Missing)	0	0.0	2	0.6

Although based on a fairly small number of Uni Connect students, Table 4 highlights some encouraging results. 73.3% of the Uni Connect students (n=22) stated that they would like

to go to university when they leave compulsory education compared to 66.5% of the control group (n=212). Moreover, 76.7% of the Uni Connect students (n=23) stated that it is very important to do well in their current studies compared to 63.3% of the control group (n=202). These differences are not statistically significant, primarily due to the small Uni Connect sample size, but they indicate positive aspirations and views towards education, particularly in the Uni Connect respondents.

Focusing on the aspiration to go to university after completing current studies by gender (Figure 13), females were more likely to say yes to university than males. In particular, 72.4% of females (147/203) said they would like to go to university after completing their current studies compared to 59.4% of males (79/133), and this difference is statistically significant (p = 0.013)[8]. A total of 8/12 students (66.7%) who identified as other or preferred not to state their gender said yes they would like to go to university.
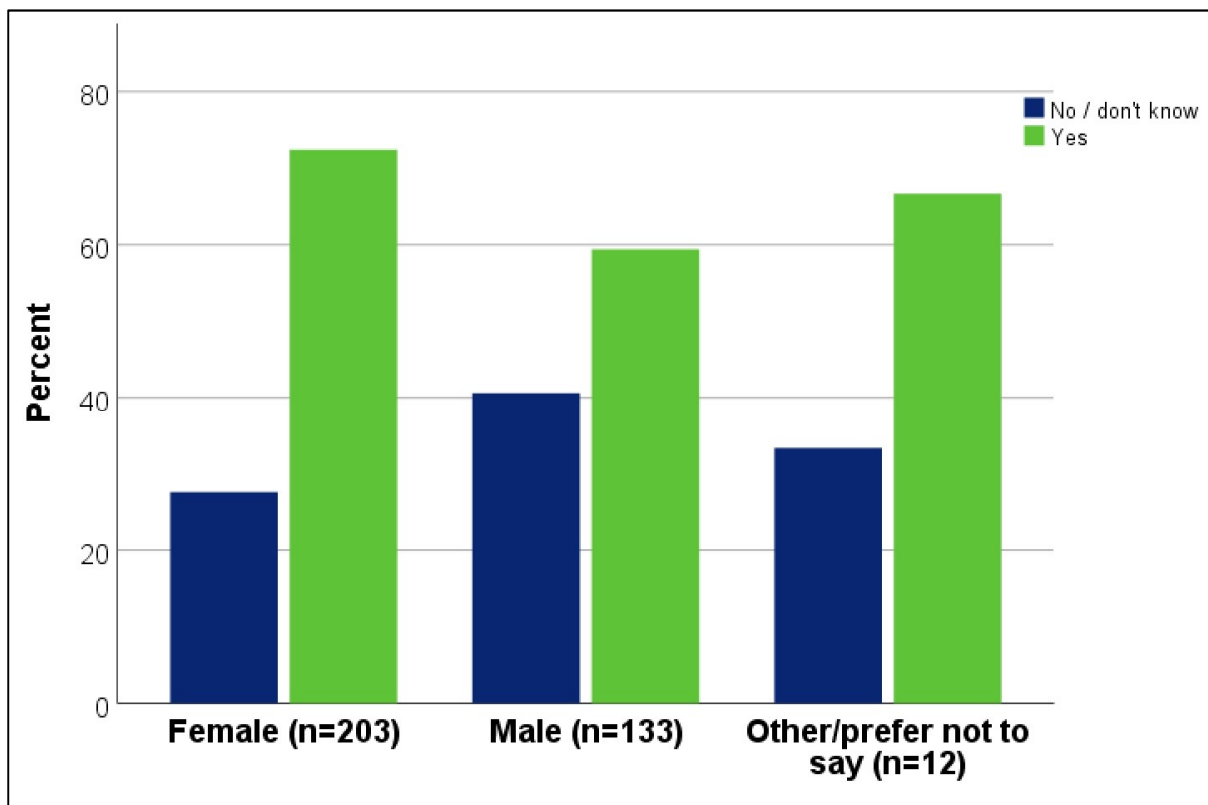

Figure 13: Would you like to go to university after completing your current studies? Responses by gender (n = 348, *1 missing value*)

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[8] Chi squared test to compare two proportions: $\chi^2(1, n=336) = 6.182$, p = 0.013

A logistic regression model was fitted to further investigate factors that influence a student's aspiration to go to university after completing their current studies ('yes' versus 'no/don't know')[9]. The results are shown in Table 5. Four factors were found to be predictive of aspiration to go to university; female gender, whether a student knows someone who has been to university, qualification type and higher academic self-concept score (i.e. a more positive attitude towards oneself as a learner).

Interestingly, including the Stand and Winston subscales scores, commitment to schooling and negative peers/disaffection, knocked out the gender effect from the model. However, it was felt that gender likely underlies these differences and, as such, gender was retained in the model and the subscales removed. The group, Uni Connect or control, did not impact aspiration to go to university after adjusting for the other elements in the model and was thus removed.

Table 5: Results of the logistic regression to investigate factors predictive of aspiration to go to university after leaving compulsory education (n = 346*)

Attribute	Regression coefficient (β)	Adjusted odds ratio (with 95% CI)		p value
Gender:				
Other/not stated	-0.207	0.813	(0.223, 2.960)	0.754
Male	-0.506	0.557	(0.340, 0.911)	0.020
Female (ref#)	0	1	-	-
Do you know someone who has been to uni?				
Yes	0.610	1.841	(1.008, 3.363)	0.047
No / not sure (ref)	0	1	-	-
Qualification				
Other	-0.406	0.667	(0.216, 2.060)	0.481
A Levels and BTEC	-0.692	0.501	(0.296, 0.847)	0.010
BTEC only	-1.364	0.256	(0.120, 0.544)	<0.001
A Levels only (ref)	0	1	-	-
Academic self-concept score	0.882	2.415	(1.226, 4.755)	0.011

* 3 *missing values;* #ref = reference group. This indicates the group against which we draw comparisons in relation to the outcome of interest.

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[9] A logistic regression model is used to investigate factors predictive of a binary (yes/no) outcome. In this case, a manual backward elimination approach was used to fit the model. All potential predictors were placed into the model upfront and then removed one at a time according to whether they achieve significance at the 5% level, with those factors obtaining a p value less than this (or very close to it) being retained. The group variable, Uni Connect or control, was added at the end of the model building process to investigate differences between these two groups of students after adjusting for other factors.

With reference to Table 5 on the previous page, males are significantly less likely to say yes to going to university compared to females, with an adjusted odds ratio of 0.557 (95% CI 0.340, 0.911), p = 0.020. This means that the odds of a male participant saying yes to going to university are roughly half the odds of a female participant doing so, after already taking into account whether the student knows someone who has been to university, their qualification type and their perceptions of themself as a learner.

Again, accounting for the other factors in the model, students who state that they know someone who has been to university have roughly double the odds of saying yes to university compared to those who state that they don't know someone; adjusted odds ratio 1.841, 95% CI (1.008, 3.363), p=0.047.

In terms of qualifications, those who are studying for A Levels only are significantly more likely to say yes to going to university than those who are studying for a BTEC qualification (either on its own or in conjunction with A Levels), assuming the other factors in the model remain fixed. For those only studying for a BTEC, the adjusted odds ratio is 0.256, 95% CI (0.120, 0.544), p < 0.001 and for those studying for a BTEC alongside A Levels, the adjusted odds ratio is 0.501, 95% CI (0.296, 0.847), p = 0.010.

Finally, after accounting for the other factors in the model, a one unit increase in academic self-concept score (measured on the range 1 to 4) more than doubles the odds of saying yes to university; adjusted odds ratio 2.415, 95% CI (1.226, 4.755), p = 0.011. This suggests that having a positive perception of oneself as a learner is an important factor in aspiring to go to university.

4.1.1 Influence of knowing someone who has been to university

The percentage of students who want to go to university is fairly high across the cohort at 67.1% (233/347), as is the percentage of students who know someone who has been to university at 83.9% (291/347). These findings are perhaps not surprising for a Year 12 cohort.

From the analysis in the previous section around aspiration to go to university, there is evidence that the desire to go to university after leaving compulsory education differs according to whether a student knows someone who has been to university or not. Table 6 on the next page breaks down aspiration to go to university according to whether a student knows someone who has been to university. Of those who know someone who has been to university, 69.8% (203/291) would like to go themselves compared to 53.6% (30/56) of those who don't know someone who has been to university or are not sure if they know someone. This difference achieves borderline significance (p = 0.058)[10].

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[10] Chi squared test to compare two proportions: $\chi^2(1, n=347) = 5.708$, p = 0.058

Table 6: Aspiration to attend university after completing current studies according to whether the respondent knows someone who has been to university (n = 347*)

Do you know anyone who has been to university?	When you are 18, would you like to go to university?			Total
	No	**Yes**	**Don't know**	
No	6 (13.3%)	25 (55.6%)	14 (31.1%)	45 (100%)
Yes	30 (10.3%)	203 (69.8%)	58 (19.9%)	291 (100%)
Not sure	2 (18.2%)	5 (45.5%)	4 (36.4%)	11 (100%)
Total	38 (11.0%)	233 (67.1%)	76 (21.9%)	347 (100%)

* 2 missing values
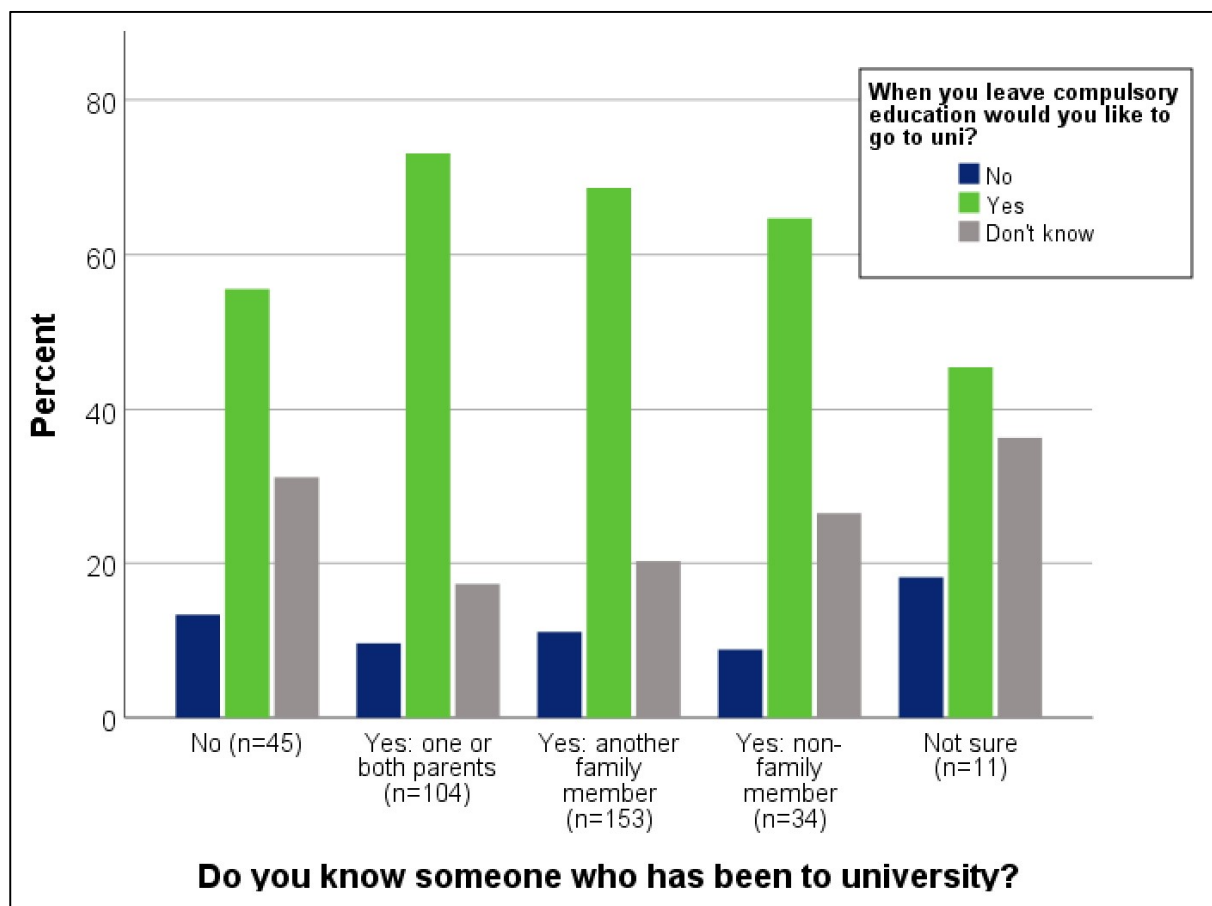
Figure 14: Aspiration to go to university according to whether a respondent knows someone who has been to university and their relationship with that person (n = 347, *2 missing values*)

Figure 14 above shows the percentage of students who would like to go to university after leaving compulsory education according to whether they know someone who has been to university and their relationship with that person. Looking at the green bars depicting the

'yes' responses to going to university, for those who said that they know someone who has been to university, the desire to attend university appears to decrease as that relationship becomes more distant. Those who are not sure if they know someone who has been to university appear least likely to aspire to university (45.5%; 5/11), but the number of students in this group is small.

4.1.2 Attitudes to education

The scores based on the work of Strand and Winston (2008) were used to assess attitudes to education (including four subscales), as outlined in Section 3.3. The logistic regression model fitted in Section 4.1 (Table 5) established a positive association between academic self-concept score, i.e. how a student perceives themself as a learner, and aspiration to go to university. To explore further, Tables 7 and 8 show the mean attitude to education scores, along with the mean scores for the four subscales, broken down by group, Uni Connect or control, and gender respectively.

Table 7: Mean attitude to education scores by group (n = 349)

Mean score (SD)	Group	
	Uni Connect (n=30)	Control (n=319)
Overall attitude to education	3.13 (0.30)	3.14 (0.32)
Commitment to schooling	3.45 (0.47)	3.40 (0.42)
Academic self-concept	3.08 (0.37)	3.11 (0.37)
Home support for learning	2.88 (0.41)	2.97 (0.49)
Disaffection / negative peers	3.13 (0.48)	3.07 (0.41)

Table 8: Mean attitude to education scores by gender (n = 349)

Mean score (SD)	Gender		
	Female (n=204)	Male (n=133)	Other / Prefer not to say (n=12)
Overall attitude to education	3.19 (0.30)	3.08 (0.32)	2.86 (0.27)
Commitment to schooling	3.48 (0.40)	3.32 (0.43)	3.07 (0.52)
Academic self-concept	3.10 (0.36)	3.14 (0.39)	2.78 (0.26)
Home support for learning	3.04 (0.48)	2.85 (0.49)	2.77 (0.35)
Disaffection / negative peers	3.15 (0.40)	2.99 (0.42)	2.83 (0.47)

The mean scores for the Uni Connect and the control groups (Table 7) are very similar, with no evidence of differences ($p > 0.05$ in all cases, independent samples t tests to compare means – see Table A1, Appendix A). However, there are differences in the mean scores between gender groups (Table 8). One-way analysis of variance (ANOVA) was used for each

scale to investigate the differences in mean scores across gender groups, using post-hoc comparisons with Tukey HSD. The full results can be seen in Appendix A, Tables A2-A7. For all but one scale, namely academic self-concept, the mean female score was significantly higher than the mean score for males. This shows a more positive to attitude to education in female students compared to their male counterparts, although no difference in how they see themselves as learners.

A noticeable trend, as seen in Table 8 above, is the lower mean scores across the scales for those in the other/prefer not to say gender group. After undertaking formal testing, the mean scores for students in this gender group were found to be significantly lower compared to both females and males for the overall attitude to education score and the academic self-concept score (see Appendix A). Referring back to the logistic regression results in Table 5, academic self-concept was the only score that was predictive of aspiration to go to university after the inclusion of gender in the model. This suggests that how a student perceives themself as a learner has an association with aspiration to go to university, independent of gender. As such, the fact that those in the other/prefer not to say group have a significantly lower mean academic self-concept score than both female and male students highlights an area of concern with regard to the future aspirations of these students.

4.2   Self-esteem

In Section 3.4 we undertook a basic analysis of self-esteem for students who had completed both baseline and follow-up questionnaires. This section will replicate some of those analyses at the single follow-up time point, with additional analyses to investigate relationships between self-esteem and other factors.

The mean self-esteem score for those who completed a follow-up questionnaire was 1.83 (SD 0.54), n = 349. The mean score for those in the Uni Connect group was 1.80 (SD 0.52) compared to 1.83 (SD 0.54) in the control group, thus very similar.

Table 9 shows the mean self-esteem score by gender, as well as the percentage in each group who reported low self-esteem. The distributions of scores in each group can also be visualised in Figure 15 on the next page.

Table 9: Descriptive statistics for self-esteem score by gender (n = 349)

	Female (n=204)	Male (n=133)	Other (n=12)
Mean	1.80	1.92	1.28
Standard deviation	0.52	0.55	0.53
% (n) with low self-esteem **(i.e. score < 1.5)**	25.5% (n=52)	18.0% (n=24)	66.7% (n=8)

Looking first at the percentage of students with low self-esteem in Table 9, the percentages in the male and female groups closely mirror those reported in Table 3 (page 20) for the smaller group of students who completed both baseline and follow-up data. This suggests a good level of consistency between the analyses. However, although the sample size is small, attention is drawn to those who identify as other/prefer not to say where 8 out of 12 students (66.7%) are classified as having low self-esteem. Looking at the corresponding mean scores in Table 9, there is a clear difference between the mean score for the students in this group and those who identify as male or female.

A one-way ANOVA was used to compare the mean self-esteem scores across the three gender groups, with strong evidence to suggest differences; $F_{(2,346)} = 8.759$, $p < 0.001$. Post-hoc tests using Tukey HSD showed significantly lower self-esteem in those who identify as other/prefer not to state their gender compared to both males ($p < 0.001$) and females ($p = 0.003$). There was no evidence of a difference in mean self-esteem score between females and males ($p = 0.098$). See Appendix A, Table A8 for full results.
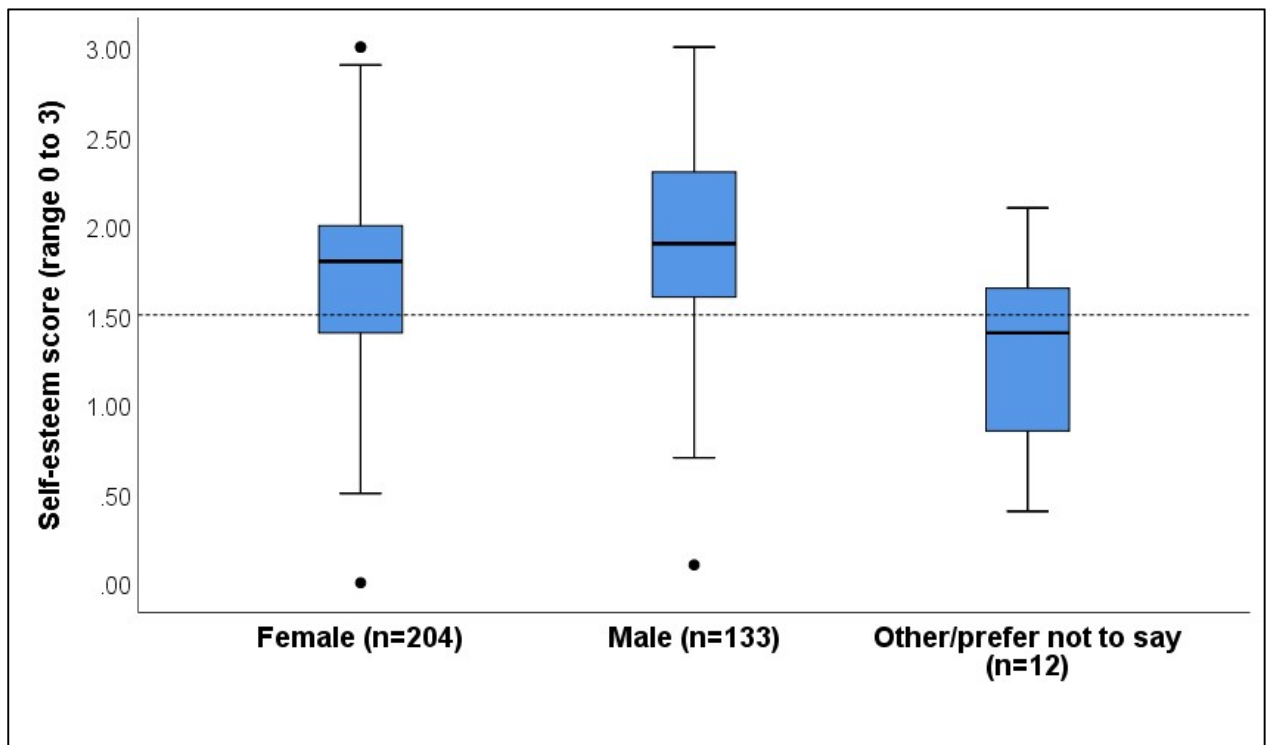
Figure 15: Rosenberg self-esteem scores by gender (n = 349)

The thick black line in the centre of each coloured box represents the median score, and the height of each box shows the interquartile range for the corresponding group. This tells us the range of the middle 50% of the data values. The horizontal dashed line at 1.5 indicates the cut-point for low self-esteem.

4.2.1 Relationship between self-esteem and academic self-concept

Bearing in mind the differences in self-esteem by gender and the result from Section 4.1 (Table 5) that showed a positive relationship between academic self-concept (i.e. a student's perception of themselves as a learner) and aspiration to go to university, we will now

consider the relationship between self-esteem and academic self-concept. A multiple regression model was fitted to investigate whether self-esteem is associated with academic self-concept, adjusting for other factors that may also influence academic self-concept. A range of possible predictors were tested in the model, including gender, group, qualifications, knowing someone who has been to university and the remaining three subscales measuring attitudes to education, namely commitment to schooling, home support for learning and disaffection/negative peers, as well as self-esteem score[11].

Just two elements were found to be predictive of academic self-concept, namely commitment to schooling and self-esteem. The regression results are shown in Table 10. In terms of commitment to schooling, although a positive association was observed between this and academic self-concept, thought needs to be given to the direction of the relationship. Does improved commitment to schooling lead to a more positive perception of oneself as a learner or does a positive perception of oneself as a learner, i.e. a high academic self-concept score, result in a stronger commitment to schooling? This is something that requires investigation beyond the statistical analysis.

Focusing instead on self-esteem, assuming the commitment to schooling score remains fixed, a one unit increase in self-esteem score (measured on the scale 0 to 3) leads to an average increase in academic self-concept score of 0.381 ($p < 0.001$). Neither group (Uni Connect or control) nor gender were significant in the model. In light of the previous finding in Section 4.1 that a more positive academic self-concept improves aspiration to attend university, the fact that self-esteem is positively related to academic self-concept underlines the importance of positive self-esteem as a building block for aspiration raising.

Table 10: Results of the multiple regression to investigate factors predictive of academic self-concept (n = 349)

Attribute	Regression coefficient (β)	95% confidence interval	p value
Self-esteem score	0.381	(0.330, 0.432)	< 0.001
Commitment to schooling score	0.310	(0.245, 0.375)	< 0.001

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[11] A manual backward elimination approach was used to fit the model. All potential predictors were placed into the model upfront and then removed one at a time according to whether they achieve significance at the 5% level, with those factors obtaining a p value less than this (or very close to it) being retained. The group variable, Uni Connect or control, was added at the end of the model building process to investigate differences between these two groups of students after adjusting for other factors.

What have we learned about aspirations towards university and attitudes to education at the end of the academic year 2020-21?

- 73.3% of the Uni Connect students said that they would like to go to university after completing their current studies compared to 66.5% of the control group.

- Year 12 females appear more likely to aspire to university than Year 12 males.

- Four factors were found to be predictive of the aspiration to go to university: female gender, knowing someone who has been to university, qualification type (A levels only) and having a higher academic self-concept score (i.e. a more positive perception of oneself as a learner).

- Females appear to have a more positive attitude to education than males.

- Students who identify their gender as other or prefer not to say have significantly lower academic self-concept and self-esteem compared to their female and male peers.

- Self-esteem appears to be an important building block for aspiration raising.

4.3 The impact of Covid-19

In part 2 of the follow-up questionnaire, alongside the questions relating to attitudes to education, the students were asked to state their level of agreement with an additional two statements related to the change in schooling conditions in response to the Covid-19 pandemic. Namely, "I have had access to the technology I need to learn from home during the Covid-19 pandemic" and "I enjoy working on my own". Tables 11 and 12 show the levels of agreement with these statements by group, Uni Connect or control.

Table 11: I have had access to the technology I need to learn from home during the Covid-19 pandemic

Level of agreement	Group				Total	
	Uni Connect		Control			
Strongly disagree	0	0.0%	0	0.0%	0	0.0%
Disagree	0	0.0%	4	1.3%	4	1.1%
Agree	12	40.0%	109	34.2%	121	34.7%
Strongly agree	18	60.0%	206	64.6%	224	64.2%
Total	30	100.0%	319	100.0%	349	100.0%

Table 12: I enjoy working on my own

Level of agreement	Group				Total	
	Uni Connect		Control			
Strongly disagree	2	6.7%	7	2.2%	9	2.6%
Disagree	1	3.3%	24	7.5%	25	7.2%
Agree	13	43.3%	142	44.5%	155	44.4%
Strongly agree	14	46.7%	144	45.1%	158	45.3%
Missing	*0*	*0.0%*	*2*	*0.6%*	*2*	*0.6%*
Total	30	100.0%	319	100.0%	349	100.0%

With reference to Tables 11 and 12, nearly all of the respondents appear to have had access to the technology they needed to learn from home during the pandemic, with just 4 students (1.1%) disagreeing with this statement. Interestingly, nearly all students agreed or strongly agreed that they enjoy working on their own, with just 34 students (9.7%) disagreeing with this statement. There are no clear differences between the two groups, Uni Connect or control, in response to these two statements.

Table 13: Aspiration to go to university after leaving compulsory education according to enjoyment working alone (n=346*)

I enjoy working on my own	After completing your current studies, would you like to go to university?			Total
	No	Yes	Don't know	
Disagree/strongly disagree	7 (20.6%)	17 (50.0%)	10 (29.4%)	34 (100.0%)
Agree/strongly agree	31 (9.9%)	216 (69.2%)	65 (20.8%)	312 (100.0%)
Total	38 (11.0%)	233 (67.3%)	75 (21.7%)	346 (100.0%)

* 3 missing values

Table 13 shows the aspiration to go to university according to whether a student agrees/strongly agrees that they like working alone or disagrees/strongly disagrees. Students who do not enjoy working alone appear to be significantly less likely to aspire to go to university after completing their current studies, with 50.0% (17/34) of those who don't like working alone stating yes, they would like to go to university after leaving compulsory education, compared to 69.2%% (216/312) of those who enjoy working alone (p = 0.023).[12] This perhaps reflects negative experiences of working alone during the pandemic which may have impacted attitudes to education. However, further investigations are needed to explore this, especially given the small number of students in the disagree/strongly disagree category.

Table 14: Mean attitude to education scores measured on a 1 to 4 scale (Strand and Winston, 2008) split by whether a student agrees or disagrees that they like working alone (n = 346)*

Scale	I enjoy working alone		t value (df = 345)	p value
	Agree/Strongly Agree	Disagree/Strongly Disagree		
Overall attitude to education	3.15 (0.02)	3.00 (0.33)	2.751	0.006
Commitment to schooling	3.42 (0.02)	3.21 (0.08)	2.785	0.006
Academic self-concept	3.11 (0.02)	3.04 (0.08)	1.065	0.288
Home support for learning	2.97 (0.48)	2.80 (0.49)	2.044	0.042
Disaffection / negative peers	3.09 (0.02)	2.91 (0.07)	2.409	0.017

* 3 missing values

Values are given as mean (standard deviation) and an independent samples t test has been undertaken for each scale to compare means between the agreement groups.

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[12] Chi squared test to compare two proportions: $\chi^2(1, n=346) = 5.155$, p = 0.023

Focusing on attitudes to education as measured on the 1 to 4 scale outlined in Section 3.3, Table 14 on the previous page shows the mean attitude to education score, as well as the mean scores for the four subscales, according to whether a student agrees that they like working alone. There is strong evidence of a lower mean score and, thus, a more negative attitude to education in those who do not like working alone compared to those who do, as well as a more negative commitment to schooling (p = 0.006 in both cases). Significant differences were also observed for the home support for learning and the disaffection/negative peers subscales, with those who do not enjoy working alone having lower mean scores. However, applying a Bonferroni correction for multiple testing would push these results into non-significance, so the level of evidence can perhaps be considered borderline. Still, the trend of lower mean scores in those who do not enjoy working alone is an interesting observation. There was no evidence of a difference in mean academic self-concept score between the two groups (p = 0.288).

Interestingly, although we have seen evidence of differences in aspiration to go to university and attitudes to education according to whether a student enjoys working alone, there was no significant difference in mean self-esteem score (range 0 to 3) between these two groups. Those who don't like working alone reported a mean score of 1.73 (SD 0.10) compared to 1.84 (SD 0.03) for those who do like working alone (independent samples t test, t = 1.092, df = 345, p = 0.275).

4.3.1 The impact of gender on working alone

After further exploring the characteristics of those who don't like working alone compared to those who do, an important factor seems to be gender. Of those who don't like working alone, 55.9% were male (19/34) compared to 36.1% of those who do like working alone (113/313). Since only 38% of the sample is male, the percentage of males in the 'don't like working alone group' is over-represented (see Table 15 on the next page).

Put another way, 19/132 (14.4%) of the males do not like working alone compared to 13/203 (6.4%) of the females, a difference that is significant (p = 0.015)[13]. A total of 2/12 (16.7%) students in the other/prefer not to say group did not enjoy working alone, but it is hard to make meaningful inferences from such a small sample.

This fits with findings from section 4.1.2 that revealed gender differences in attitudes to education, thus adding weight to the impact of gender on the student experience in education.

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[13] Chi squared test to compare two proportions: χ^2(1, n=335) = 5.910, p = 0.015

Table 15: Enjoyment working alone by gender, with row percentages (n=347*)

I enjoy working on my own	Gender			Total
	Female (n=203)	Male (n=132)	Other/Prefer not to say (n=12)	
Disagree/strongly disagree	13 (38.2%)	19 (55.9%)	2 (5.9%)	34 (100.0%)
Agree/strongly agree	190 (60.7%)	113 (36.1%)	10 (3.2%)	313 (100.0%
Total	203 (58.5%)	132 (38.0%)	12 (3.5%)	347 (100.0%)

* 2 missing values

4.3.2 Learning during Covid-19

When asked how difficult they had found learning since the first Covid-19 lockdown in March 2020, 59.9% of the students who responded (208/347) said they had found it more difficult. The percentage of Uni Connect students who found learning more difficult following the Covid-19 lockdown was slightly higher than that of the control group (66.7% vs. 59.3% respectively), but the difference is not significant, p = 0.432[14] (Table 15).

Table 15: Experiences of learning since the first Covid-19 lockdown by group (n = 347*)

Since the first Covid-19 lockdown I have found learning…	Group				Total	
	Uni Connect		Control			
Easier	2	6.7%	37	11.7%	39	11.2%
About the same	6	20.0%	77	24.3%	83	23.9%
More difficult	20	66.7%	188	59.3%	208	59.9%
Not sure	2	6.7%	15	4.7%	17	4.9%
Total	30	100.0%	317	100.0%	347	100.0%

* 2 missing values

Table 16 on the next page shows how difficult the students found learning since the first Covid-19 lockdown broken down by gender. There are no clear differences in experience across the gender groups, although a slightly higher percentage of those in the other group found learning more difficult; 66.7% compared to 59.4% for females and 60.2% for males.

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[14] Chi squared test to compare two proportions: $\chi^2(1, n=347) = 0.618$, p = 0.432

Again, the number of students in this group is too small to make inferences, but perhaps adds to the picture of increased struggle that students in this group appear to face.

Table 16: Experiences of learning since the first Covid-19 lockdown by gender (n = 347*)

Since the first Covid-19 lockdown I have found learning…	Gender			Total
	Female	**Male**	**Other/ Prefer not to say**	
Easier	20 (9.9%)	19 (14.3%)	0 (0.0%)	39 (11.2%)
About the same	54 (26.7%)	26 (19.5%	3 (25.0%)	83 (23.9%)
More difficult	120 (59.4%)	80 (60.2%)	8 (66.7%)	208 (59.9%)
Not sure	8 (4.0%)	8 (6.0%)	1 (8.3%)	17 (4.9%)
Total	202 (100.0%)	133 (100.0%)	12 (100.0%)	347 (100.0%)

* 2 missing values

4.3.3 Plans after completing studies pre and post Covid-19 lockdown

The students were asked to specify their plans after completing their studies before the first Covid-19 lockdown in March 2020 and since. A total of 343 students responded to both of these questions and, of these, 68 (19.8%) had changed their plans. A total of 8/30 (26.7%) Uni Connect students changed their plans compared to 60/313 (19.2%) control students, although this difference is not statistically significant (p = 0.327)[15].

Interestingly, the mean Strand and Winston attitude to education score was slightly lower in those who changed plans compared to those who didn't: 3.04 (SD 0.29) versus 3.16 (SD 0.32) respectively, p = 0.005[16]. This suggests that those who changed plans have a more negative attitude to education than those who didn't.

These questions were followed up by asking the students to comment on why their plans had changed. A total of 58 students commented and the full list of comments can be found in Table A9, Appendix A. A small number of those who made a comment did not specify changed plans but expressed uncertainty about their plans. In particular, three of those who had not specified changed plans talked about uncertainty around their grades following the pandemic.

Overall, no single reason for changing plans stands out, but some students mention that they had more time to think about what they want to do, especially during lockdown. Some people felt that they had more information about their options which helped them to make choices. There is a sense from some of those who changed plans that they felt that

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[15] Chi squared test to compare two proportions: χ^2(1, n=343) = 0.968, p = 0.327
[16] Independent samples t test: t = 2.838, df = 341, p = 0.005

undertaking an apprenticeship would be an easier route to follow than going to university. In a very basic sentiment analysis, around 50% of the comments appeared to be positive compared to around 28% negative and 21% neither positive nor negative. A small number of students mentioned struggles during the Covid-19 pandemic. For example, "***Covid meant I lost all motivation and missed part of my lessons due to lack of focus***". Others seem to have changed their attitudes towards education, "***I fell out of love with education***", "***I don't really know, just lost the want to go to university***". There was an overall sense of uncertainty across a number of the comments.

What have we learned about the impact of Covid-19?

- Nearly all respondents agreed that they had access to the technology they needed to learn from home during the pandemic, with no difference between the Uni Connect and control students.

- Interestingly, nearly all students agreed that they enjoy working alone, with only 34 students (9.7%) disagreeing with this.

- Those who do not like working alone were less likely to say yes to going to university after completing their current studies than those who do.

- Those who do not like working alone had lower mean attitude to education score, and thus a more negative attitude to education, than those who do like working alone.

- The above two findings could potentially be explained, at least partly, by gender differences since males were less likely to agree that they enjoy working alone than females.

- Nearly 60% of the students reported finding learning more difficult since the first Covid-19 lockdown. Split by group, 66.7% of the Uni Connect students found learning more difficult compared to 59.3% of the control students.

- A slightly higher percentage of students who identified their gender as other or preferred not to say reported finding learning more difficult since the first Covid-19 lockdown; 66.7% vs. 59.4% (females) and 60.2% (males). This adds to the picture of increased struggle for students in this group.

5. Appendix A

The outputs in Table A1 relate to the discussion in Section 4.2.1 in relation to Table 7 (page 30).

Table A1: Independent samples t test results to compare mean scores between the Uni Connect group (n = 30) and control group (n = 319)

Scale	Mean difference Control-Uni Connect	t value (df = 347)	p value
Overall attitude to education	0.004	0.071	0.943
Commitment to schooling	-0.049	-0.600	0.549
Academic self-concept	0.024	0.334	0.738
Home support for learning	0.086	0.930	0.353
Disaffection / negative peers	-0.061	-0.762	0.447

The outputs in Tables A2-A7 show the results of a series of separate one-way analysis of variances (ANOVAs) to investigate differences in mean attitude to education scores (including the four subscales) across gender groups; female (n = 204), male (n = 133), other/prefer not to say (n = 12). Post-hoc comparisons between means have been undertaken using Tukey HSD following a significant result from each one-way ANOVA. The outputs below relate to the discussion in Section 4.1.2 after Table 8 (page 30).

Table A2: One-way ANOVA results for comparisons between gender groups on the overall attitude to education score and the four subscales (n = 349)

Scale	ANOVA result
Overall attitude to education	$F(2,346) = 9.994$, $p < 0.001$
Commitment to schooling	$F(2,346) = 9.780$, $p < 0.001$
Academic self-concept	$F(2,346) = 5.215$, $p = 0.006$
Home support for learning	$F(2,346) = 7.013$, $p = 0.001$
Disaffection / negative peers	$F(2,346) = 8.068$, $p < 0.001$

Table A3: Post-hoc tests with Tukey HSD (following one-way ANOVA) to investigate differences in mean attitude to education between gender groups

Comparison	Mean difference	p value
Female – Male	0.1071	0.005
Female – Other/prefer not to say	0.3311	0.001
Male - Other	0.2240	0.043

Table A4: Post-hoc tests with Tukey HSD (following one-way ANOVA) to investigate differences in mean commitment to schooling between gender groups

Comparison	Mean difference	p value
Female – Male	0.1552	0.002
Female – Other/prefer not to say	0.4088	0.003
Male - Other	0.2536	0.105

Table A5: Post-hoc tests with Tukey HSD (following one-way ANOVA) to investigate differences in mean academic self-concept between gender groups

Comparison	Mean difference	p value
Female – Male	-0.0308	0.733
Female – Other/prefer not to say	0.3268	0.008
Male - Other	0.3576	0.004

Table A6: Post-hoc tests with Tukey HSD (following one-way ANOVA) to investigate differences in mean home support for learning between gender groups

Comparison	Mean difference	p value
Female – Male	0.1841	0.002
Female – Other/prefer not to say	0.2716	0.135
Male - Other	0.0875	0.815

Table A7: Post-hoc tests with Tukey HSD (following one-way ANOVA) to investigate differences in mean disaffection/negative peers between gender groups

Comparison	Mean difference	p value
Female – Male	0.1577	0.002
Female – Other/prefer not to say	0.3150	0.028
Male - Other	0.1573	0.416

The following table relates to the discussion in Section 4.2 following Table 9 around self-esteem and gender (page 31).

Table A8: Post-hoc tests with Tukey HSD (following one-way ANOVA) to investigate differences in mean self-esteem score between gender groups

Comparison	Mean difference	p value
Female – Male	-0.1218	0.098
Female – Other/prefer not to say	0.5167	0.003
Male - Other	0.6385	< 0.001

Table A9: Reasons for changing plans since the Covid-19 pandemic (student comments)

1	covid meant I lost all motivation and missed part of my lessons due to lack of focus
2	University runs you into debt and will spend half your life paying it back
3	Have more of an idea what I want to do
4	since covid my plans for travelling to university (i.e further away have changed)
5	my answer is the same for now but I'm still unsure if I am 100% about going to uni
6	I'm now unsure on what I want to do after college as I feel lockdowns have had a negative effect on my grades and I won't get into college
7	I don't know how my grades will be affected as I struggled during lockdown
8	didn't apply for more, didn't get an apprenticeship
9	I always thought I would go to uni, however my mind keeps changing as I have no clue what I want to study and I don't think I will get the A Level grades needed. But then I do not know what else I would do
10	Already have a job to go into when I leave college
11	more knowledge
12	I have considered doing an apprenticeship so am deciding between that and university now
13	I am not sure whether an apprenticeship or going to university will be most beneficial therefore, I am looking into routes I can take that will help me achieve my goals
14	to save for asperations (driving)
15	Because covid has given me both GSCE and first year results are higher than expected and has given me a glimmer of hope that I could get to Univeristy even in my disadvantage position
16	My answer that I have put for q3 and q4 are 100% going to stay the same as I am motivated and inspired to getting a job and getting into university
17	I have found a career I am interested in I have found out about degree apprenticeships. I have been restrained from reaching my desired university courses due to requirements for maths
18	Before lockdown I planned to stay in education for as long as possible, however after consideration during the pandemic I decided that I am uncertain whether to get an apprenticeship, get a job or go to university at this moment going to univeristy seems equally appealing as finding an apprenticeship
19	I'm now more slightly certain about what I want to do in the future
20	I have realised that I want to become a primary school teacher
21	I found something I want to do at Uni
22	I am now looking into apprenticeships as well as universities as I am interested in both
23	College helped me figure out what I wanted to do
24	Thinking about a HNC course
25	not due to
26	Learned about the Police constable apprenticeship
27	I've changed my mind on going into the police
28	I think the pandemic gave me time to think what I wanted to do after college and the decision wasn't rushed
29	Educational system has shifted

30	school doesn't feel for me anymore. When I started working through the pandemic I now enjoy working instead of going to college. The pandemic changed my perspective and school no longer feels important to me.
31	Not sure I will get good enough grades and just not really sure what I wanna do
32	Not achieving needed grades. State of online study at university
33	Since looking at my options, I have decided to stay in education for an extra year after my 21/22 year and continue in my part time job in retail
34	since covid 19 I have had more time to self reflect on what I want and what I'd like to do since I have been at home and have had more time to talk to my friends about options they want and compare my options, not to mention the time I have had to research and learn about these options
35	I wouldn't like all my lectures to be online if I'm paying loads of money
36	I was offered an apprenticeship
37	I haven't decided whether to go to university or do a degree apprenticeship once I finish college
38	I have had time to research and make some decisions
39	I found college work really hard (due to online learning) which makes me think I wouldn't succeed in a univeristy setting
40	I don't really want to go into more education and I feel an apprenticeship is an easier route for me to go for what I want to do
41	I changed colleges and got a job whilst I waited to start my new college, I enjoy working and earning money
42	I am unsure whether I want to go to uni or get an apprenticeship
43	Gave me time to think about what I wanted to do in the future
44	Gained more information about university which made me change my plan
45	exposed to me opportunities of degree apprenticeships so currently undecided whether to pursue a straight degree or not
46	Covid has taught me that people who have high payed and good jobs can still lose their jobs. I would like to get a degree so I can always use that as a back up and to my advantage in the long run. I would like to study criminology at uni, however I want to be a pilot in the RAF, so if the RAF doesn't work out I can us my degree in the Police Force
47	As it turns out I can do an apprenticeship in my future career but I'm not sure how to get it
48	My plans have changed because I feel like doing an apprenticeship will be much easier
49	my motivation has declined and my views on what I want to do with my life have fluctuated. I feel as if my education isn't as important to me anymore and instead I wish to simply be satisfied with my living conditions. The idea of studying hard and working towards a good job no longer seems possible or appealing and I wish for others to accept this, but some do not and this makes me still consider a traditional route.
50	I want to go to University
51	I think I may go to university for Film Production. I originally was not sure what to do after college. Whether Film Production will be for me, I am not 100% sure, but it's the only idea I have, so I might give it a go
52	I simply decided that I now favoured the university route
53	I fell out of love with education

54	I didn't really know what I wanted to do. However now I have more of an idea I feel, although an still unsure
55	I am unsure of what career I want to do in the future
56	considered university more however still not 100% sure. Either Uni or Apprenticeship
57	I'm now thinking about taking a gap year, I still want to go to university at the moment but I think a gap year would be beneficial to me so I can work on my health
58	I don't really know, just lost the want to go to university

6. Appendix B

1. Evaluation Information sheet

*** IMPORTANT: PLEASE READ ***

**STUDENT ETHICAL CONSENT INFORMATION SHEET
Project title: ThinkHigher Uni Connect**

<u>What are we doing?</u>

ThinkHigher is a partnership between local universities and colleges based at the University of Warwick. We carry out work to educate young people about university and other higher-level training, and to help them to progress to higher education. This questionnaire is designed to gather some information about how students in schools and colleges in Warwickshire and Leicestershire feel about themselves and their education.

Your responses will be used to help us understand how effective the work we do in schools and colleges is, and also to obtain information on how young people in schools and colleges feel about their education and their future ambitions. We also want to understand more about some of the challenges students might face. This will be used to inform work that ThinkHigher and other organisations do in the future.

<u>Why is it important?</u>

We know that there are big differences between different areas of the country in the numbers of young people who progress to university and to other higher-level training and education opportunities (e.g. higher and degree apprenticeships). ThinkHigher is funded by the Department for Education (DfE) to work to understand the reasons for these differences locally (in Coventry, Warwickshire and parts of Leicestershire) and to try to reduce them. We work with other organisations, including local authorities, universities and colleges, who also do work to improve opportunities for local young people.

To do this work effectively and to ensure that we focus on the right things, we need to have as much knowledge as possible of what the challenges and issues are.

<u>Why are we informing you about this research project?</u>

This work will help us to improve the services we offer and will also help your members of staff at your school or college to understand some of the challenges you face. More widely,

in order to try to improve opportunities for young people across the region, we would like to report our findings to other organisations and the education community so that they can learn from them. We would like your permission to use the data for this additional purpose. It is important to note that we will not share your individual questionnaire responses with other organisations, but only reports that summarise the information for groups of students.

<u>Data collection and storage</u>

We would like to ask for **your consent** for researchers affiliated to the University of Warwick to work with the following data:

- Your responses to this questionnaire
- Your responses to another questionnaire to be issued at the end of the academic year (between May and July 2021)

We give assurance that:

- The data collected and used in this research project will in no way influence your education.
- ThinkHigher will not be able to identify individual students. All data will be anonymous. This means that we will not be able to see your name as it will be replaced by an ID number.
- All data records will be stored on password-protected computers at the University of Warwick and securely stored for a minimum of 10 years.
- You are free to withdraw your consent to make use of your data as part of this study at any time until the end of July 2021 (when we will start to analyse the data) by contacting your school/college (e.g. asking a member of staff) who can request that your record be deleted.

For further information, please refer to the University of Warwick Research Privacy Notice which is available here:
https://warwick.ac.uk/services/idc/dataprotection/privacynotices/researchprivacynotice or by contacting the Legal and Compliance Team at GDPR@warwick.ac.uk.

<u>Who should I contact if I wish to make a complaint?</u>

Any complaint about the way you have been dealt with during the study or any possible harm you might have suffered will be addressed. Please address your complaint to the person below, who is a senior University of Warwick official entirely independent of this study:

Head of Research Governance
Jane Prewett
Research & Impact Services
University House
University of Warwick
Coventry
CV4 8UW
Email: researchgovernance@warwick.ac.uk
Tel: 024 76 522746

If you wish to raise a complaint on how we have handled your personal data, you can contact our Data Protection Officer who will investigate the matter: DPO@warwick.ac.uk.

If you are not satisfied with our response or believe we are processing your personal data in a way that is not lawful you can complain to the Information Commissioner's Office (ICO).

Further information

If you would like to discuss any aspects of this study or would like clarification on the above information, please email ThinkHigher thinkhigher@warwick.ac.uk. You can also ask a member of staff to contact ThinkHigher on your behalf if you prefer.

The questionnaire should take about 10-15 minutes to complete.

Many thanks for your time!

Martin Price
Collaborative Outreach Network Manager
ThinkHigher
University of Warwick
m.r.price@warwick.ac.uk

2. Baseline questionnaire – Sept/Oct 2020

Please fill in the following information:

Name: _____

What is the purpose of this questionnaire?

This questionnaire asks you about your aspirations for the future and how you feel about school or college and yourself.

Please answer the questions as honestly and accurately as you can. We are interested to know what <u>you</u> think, so try to complete it on your own without discussing your answers with your friends.

If you get stuck, please let a member of staff know who will be happy to help. The questionnaire should take around 10 minutes to complete, but don't worry if it takes you a bit longer.

Thank you for taking the time to tell us what you think!

IMPORTANT:

Please complete the consent form over the page before filling in the questionnaire.

- **Only findings from questionnaires with signed consent will be used in this evaluation.**

CONSENT FORM

Project Title: ThinkHigher Uni Connect

Name of Researchers: Martin Price and staff at the University of Warwick affiliated to ThinkHigher

> **Please read the following statements carefully. <u>Place a tick</u> in the boxes if you agree with them. In order for us to use your questionnaire responses, you must <u>TICK ALL</u> of the boxes AND write your name and signature at the bottom of this form.**

1. I have read and understood the information sheet dated 22nd September 2020 that explains the purpose of this questionnaire, or an adult has explained the purpose to me. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☐

2. I agree that researchers involved in the project from the University of Warwick may be given my responses to this questionnaire: ☐

3. I agree that my questionnaire responses may be used in educational research, reports and presentations generated by researchers involved in this project from the University of Warwick. ☐

4. I understand that it is my decision to complete this questionnaire and that I can ask for my responses not to be used in this study at any time without giving any reason and without being penalised or disadvantaged in any way. ☐

5. I understand that my data will be stored safely at the University of Warwick. ☐

_____ _____ _____
First name   **Surname**   **Date**

_____
Signature

Thank you!

ThinkHigher Uni Connect Questionnaire

Please fill in the following information:

Year 12

Tutor Group: _____

Progress Coach: _____

I am (please tick):

☐ Female   ☐ Male   ☐ Other   ☐ Prefer not to say

Part 1: Your aspirations for the future

Q1.   What qualifications are you currently studying for?
Please tick those that apply, which may be more than one box.

A levels only	☐
BTEC only	☐
A levels and BTEC	☐
GCSEs	☐
Other	☐

Q2.   At the moment, young people can leave education or training at 18. When you leave compulsory education, would you like to go to university?

Please tick just **one** box as your answer to Question 2

Yes	☐
No	☐
Don't know	☐

Q3.   How important do you think it is for you to do well in your current studies?

Please tick just **one** box as your answer to Question 3

Very important	☐
Important	☐
Not very important	☐
Not at all important	☐

Q4. Do you know anyone else who is at or has been to university?

Please tick **all** that apply as your answer to Question 4

No	☐
Yes – one or both of my parents or guardians	☐
Yes – a brother or sister	☐
Yes – another family member	☐
Yes – a friend	☐
I'm not sure	☐
Other (please specify)	☐

Part 2: Your views about school or college

Please read the following statements. In each case, tick the box that shows how strongly you agree or disagree with the statement.

Please answer the following 20 QUESTIONS by TICKING ONE BOX for EACH QUESTION

	Strongly agree	Agree	Disagree	Strongly disagree
1. I am good at working with others	☐	☐	☐	☐
2. If I work, I can succeed in life	☐	☐	☐	☐
3. I know how to be a good learner	☐	☐	☐	☐
4. Family members/carers usually come to open evenings/reviews	☐	☐	☐	☐

	Strongly agree	Agree	Disagree	Strongly disagree
5. My friends laugh at those who do well at school or college	☐	☐	☐	☐
6. I have a quiet place in which to do school or college work	☐	☐	☐	☐
7. I often get bored in class	☐	☐	☐	☐
8. My friends distract me from paying attention at school or college	☐	☐	☐	☐

	Strongly agree	Agree	Disagree	Strongly disagree
9. I always attend school or college unless I'm ill	☐	☐	☐	☐
10. Family members/carers reward me if I do well at school or college	☐	☐	☐	☐
11. I want to leave school or college as soon as possible and get a job	☐	☐	☐	☐
12. Doing well at school or college is important to me	☐	☐	☐	☐

Continued…

	Strongly agree	Agree	Disagree	Strongly disagree
13. I feel good about myself	☐	☐	☐	☐
14. I am good at most subjects at school or college	☐	☐	☐	☐
15. Finishing school or college is important to achieve my career choice.	☐	☐	☐	☐
16. I am good at solving problems	☐	☐	☐	☐

	Strongly agree	Agree	Disagree	Strongly disagree
17. If I get stuck, I can usually work things out	☐	☐	☐	☐
18. I work hard at school or college	☐	☐	☐	☐
19. Family members/carers help me with homework	☐	☐	☐	☐
20. Family members/carers often ask me how I'm doing at school or college	☐	☐	☐	☐

Part 3: Your views about yourself

Please read the following statements. In each case, tick the box that shows how strongly you agree or disagree with the statement.

Please answer the following 10 QUESTIONS by TICKING ONE BOX for EACH QUESTION

	Strongly agree	Agree	Disagree	Strongly disagree
1. On the whole, I am satisfied with myself	☐	☐	☐	☐
2. At times I think I am no good at all	☐	☐	☐	☐
3. I feel that I have a number of good qualities	☐	☐	☐	☐
4. I am able to do things as well as most other people	☐	☐	☐	☐
5. I feel I do not have much to be proud of	☐	☐	☐	☐
6. I certainly feel useless at times	☐	☐	☐	☐
7. I feel that I'm a person of worth, at least on an equal plane with others	☐	☐	☐	☐
8. I wish I could have more respect for myself	☐	☐	☐	☐
9. All in all, I am inclined to feel that I am a failure	☐	☐	☐	☐
10. I take a positive attitude toward myself	☐	☐	☐	☐

Thank you for completing this questionnaire!

3. Follow-up questionnaire – May/June/July 2021

Please fill in the following information:

Name: _____

What is the purpose of this questionnaire?

This questionnaire asks you about your aspirations for the future and how you feel about school or college and yourself.

Please answer the questions as honestly and accurately as you can. We are interested to know what <u>you</u> think, so try to complete it on your own without discussing your answers with your friends.

If you get stuck, please let a member of staff know who will be happy to help. The questionnaire should take around 10 minutes to complete, but don't worry if it takes you a bit longer.

Thank you for taking the time to tell us what you think!

IMPORTANT:

Please complete the consent form over the page before filling in the questionnaire.

- **Only findings from questionnaires with signed consent will be used in this evaluation.**

CONSENT FORM

Project Title: ThinkHigher Uni Connect

Name of Researchers: Martin Price and staff at the University of Warwick affiliated to ThinkHigher

Please read the following statements carefully. <u>Place a tick</u> in the boxes if you agree with them. In order for us to use your questionnaire responses, you must <u>TICK ALL</u> of the boxes AND write your name and signature at the bottom of this form.

6. I have read and understood the information sheet dated 22nd September 2020 that explains the purpose of this questionnaire, or an adult has explained the purpose to me. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

7. I agree that researchers involved in the project from the University of Warwick may be given my responses to this questionnaire:

8. I agree that my questionnaire responses may be used in educational research, reports and presentations generated by researchers involved in this project from the University of Warwick.

9. I understand that it is my decision to complete this questionnaire and that I can ask for my responses not to be used in this study at any time without giving any reason and without being penalised or disadvantaged in any way.

10. I understand that my data will be stored safely at the University of Warwick.

_____   _____   _____

First name   **Surname**   **Date**

_____

Signature

Thank you!

ThinkHigher Uni Connect Questionnaire

Please fill in the following information:

Year 12

Tutor Group: _____

Progress Coach: _____

I am (please tick):

☐ Female   ☐ Male   ☐ Other   ☐ Prefer not to say

Part 1: Your aspirations for the future

Q1.   What qualifications are you currently studying for?
Please tick those that apply, which may be more than one box.

A levels only	☐
BTEC only	☐
A levels and BTEC	☐
GCSEs	☐
Other	☐

Q2.   At the moment, young people can leave education or training at 18. When you leave compulsory education, would you like to go to university?

Please tick just **one** box as your answer to Question 2

Yes	☐
No	☐
Don't know	☐

Q3.   How important do you think it is for you to do well in your current studies?

Please tick just **one** box as your answer to Question 3

Very important	☐
Important	☐
Not very important	☐
Not at all important	☐

Continued over the page…/

Q4.   Do you know anyone else who is at or has been to university?

        Please tick **all** that apply as your answer to Question 4

No	☐
Yes – one or both of my parents or guardians	☐
Yes – a brother or sister	☐
Yes – another family member	☐
Yes – a friend	☐
I'm not sure	☐
Other (please specify)	☐

Part 2: Your views about school or college

Please read the following statements. In each case, tick the box that shows how strongly you agree or disagree with the statement.

Please answer the following 20 QUESTIONS by TICKING ONE BOX for EACH QUESTION

	Strongly agree	Agree	Disagree	Strongly disagree
21. I am good at working with others	☐	☐	☐	☐
22. If I work, I can succeed in life	☐	☐	☐	☐
23. I know how to be a good learner	☐	☐	☐	☐
24. Family members/carers usually come to open evenings/reviews	☐	☐	☐	☐

	Strongly agree	Agree	Disagree	Strongly disagree
25. My friends laugh at those who do well at school or college	☐	☐	☐	☐
26. I have a quiet place in which to do school or college work	☐	☐	☐	☐
27. I often get bored in class	☐	☐	☐	☐
28. My friends distract me from paying attention at school or college	☐	☐	☐	☐

	Strongly agree	Agree	Disagree	Strongly disagree
29. I always attend school or college unless I'm ill	☐	☐	☐	☐
30. Family members/carers reward me if I do well at school or college	☐	☐	☐	☐
31. I want to leave school or college as soon as possible and get a job	☐	☐	☐	☐
32. Doing well at school or college is important to me	☐	☐	☐	☐

Continued…

	Strongly agree	Agree	Disagree	Strongly disagree
33. I feel good about myself	☐	☐	☐	☐
34. I am good at most subjects at school or college	☐	☐	☐	☐
35. Finishing school or college is important to achieve my career choice.	☐	☐	☐	☐
36. I am good at solving problems	☐	☐	☐	☐

	Strongly agree	Agree	Disagree	Strongly disagree
37. If I get stuck, I can usually work things out	☐	☐	☐	☐
38. I work hard at school or college	☐	☐	☐	☐
39. Family members/carers help me with homework	☐	☐	☐	☐
40. Family members/carers often ask me how I'm doing at school or college	☐	☐	☐	☐
41. I have had access to the technology I need to learn from home during the COVID-19 pandemic	☐	☐	☐	☐
42. I enjoy working on my own	☐	☐	☐	☐

Part 3: Your views about yourself

Please read the following statements. In each case, tick the box that shows how strongly you agree or disagree with the statement.

Please answer the following 10 QUESTIONS by TICKING ONE BOX for EACH QUESTION

	Strongly agree	Agree	Disagree	Strongly disagree
11. On the whole, I am satisfied with myself	☐	☐	☐	☐
12. At times I think I am no good at all	☐	☐	☐	☐
13. I feel that I have a number of good qualities	☐	☐	☐	☐
14. I am able to do things as well as most other people	☐	☐	☐	☐
15. I feel I do not have much to be proud of	☐	☐	☐	☐
16. I certainly feel useless at times	☐	☐	☐	☐
17. I feel that I'm a person of worth, at least on an equal plane with others	☐	☐	☐	☐
18. I wish I could have more respect for myself	☐	☐	☐	☐
19. All in all, I am inclined to feel that I am a failure	☐	☐	☐	☐
20. I take a positive attitude toward myself	☐	☐	☐	☐

Part 4: Reflections on the past year

Q1.   **Since the first COVID-19 lockdown** in March 2020, have you attended college during the lockdown periods (e.g. because your parent/carer is a key worker, or for other reasons)?

Please tick just **one** box as your answer to Question 1

Yes, I attended college as usual during lockdown periods	☐
Yes, sometimes	☐
No	☐
Not sure	☐

Q2.   **Since the first COVID-19 lockdown** in March 2020, I have found learning (tick **one** of the following):

Easier than before lockdown	☐
About the same as before lockdown	☐
More difficult than before lockdown	☐
Not sure	☐

Q3.   **Before the COVID-19 pandemic**, my plan after completing my studies **was** to (tick **one** of the following):

Go into Higher Education to study for a degree (e.g. go to university)	☐
Get an apprenticeship	☐
Get a job	☐
Get a job and study part-time	☐
Not sure	☐
Other	☐

Q4.   **Since the COVID-19 pandemic**, my plan after completing my studies **is now** to (tick **one** of the following):

Go into Higher Education to study for a degree (e.g. go to university)	☐
Get an apprenticeship	☐
Get a job	☐
Get a job and study part-time	☐
Not sure	☐
Other	☐

Q5.   If your plans have changed since COVID-19 (i.e. your answers to Q3 and Q4 above are different), please explain why:

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Thank you for completing this questionnaire!