



Evaluation of the ThinkHigher Uni Connect Programme, Coventry and Warwickshire, in Year 10 students

Academic Year 2020 – 21

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Executive summary

This evaluation was conducted during a particularly 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 10 students (full year groups) across 6 schools.
- 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 420 students provided both baseline and follow-up data. Of these, 30 students (7.1%) were Uni Connect students.
- v. Due to the disruption caused by the Covid-19 pandemic, a higher number of students completed the questionnaire at the single follow-up time-point; n = 627 of which 51 (8.4%) were Uni Connect students.
- vi. The percentage of Uni Connect students who stated that they would like to go to University at age 18 increased between baseline and follow-up (36.7% vs. 46.7%) compared to a decrease in the control group (44.4% vs. 39.7%).
- vii. Role models are important for aspiring to go to university. Students who stated they know someone who has been to university were more likely to say they want to go to university at age 18 compared to those who don't know someone or are not sure if they know someone.

- viii. The 'closeness' of the relationship matters. For those who know someone who has been to university, the probability of aspiring to go to university at age 18 is higher when the relationship with the person who attended university is closer (e.g. a parent/guardian compared to a friend).
- ix. Factors influencing a maintained positive aspiration or improved aspiration to go to university at age 18 across the academic year include gender (being female), knowing someone who has been to university and a more positive attitude to education.
- x. A total of 16 Uni Connect students (53.3%) maintained/improved their positive aspiration to go to university across the academic year 2020-21 compared to 173 (44.9%) control students.
- xi. A score was obtained for each student to broadly reflect their attitude to education; range 1 to 4 (Strand and Winston, 2008). The score is made up of four subscales: commitment to schooling, academic self-concept, home-support for learning and disaffection/negative peers and a higher score reflects a more positive attitude to education. The mean score at baseline was 3.07 versus 3.00 at follow-up (n=420), showing an overall positive attitude to education across the participants.
- xii. The mean score remained constant between baseline and follow-up in the Uni Connect students (3.03, n=30) but showed a small but statistically significant decrease in the control group (3.08 vs. 3.00, $p < 0.001$, n=390).
- xiii. Across all participants, students were most positive about their commitment to schooling and least positive about the influence of negative peers (disaffection).
- xiv. Three of the four subscales showed a statistically significant decrease in mean score between baseline and follow-up, suggesting a worsening in attitude to school across the academic year. Only the academic self-concept score remained unchanged, i.e. the perception of oneself as a learner. This was the same for the Uni Connect and control students.
- xv. 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, the mean self-esteem score remained constant between baseline and follow-up at 1.7 (n=420).
- xvi. Using the cut-point of 1.5, approximately a third of the participants in this study reported low self-esteem.

- xvii. There was no difference in mean self-esteem score between the Uni Connect and the control students.
- xviii. There was variability in the mean self-esteem score between schools. The mean score showed a statistically significant decrease between baseline and follow-up in two schools. Self-esteem was particularly low in one school, hovering just above the low self-esteem threshold at both baseline and follow-up.
- xix. Mean self-esteem was significantly higher in males at both baseline and follow-up compared to females and those who stated their gender as 'other' or preferred not to say.
- xx. The mean self-esteem score for females was just above the 1.5 threshold for low self-esteem at both baseline and follow-up. Even more troubling, the mean self-esteem score for those who stated their gender as other or preferred not to say was 1.27 at baseline and 1.15 at follow-up, suggesting low and worsening self-esteem in this group (n=15).
- xxi. Upon investigating the relationship between self-esteem and attitude to education, higher self-esteem has a positive association with attitude to education, and this positive association is even stronger between self-esteem and academic self-concept (i.e. one's perception of themselves as a learner).
- xxii. Pulling the findings together, undertaking work to improve students' self-esteem may help to improve their perceptions of themselves as learners, thus strengthening these building blocks for attainment and aspiration raising.
- xxiii. Even after accounting for the effects of self-esteem and baseline academic self-concept, belonging to the 'other' gender group (or preferring not to state gender) appears to result in a more negative perception of learning at follow-up compared to those who identify as male or female.
- xxiv. In a brief exploration of the impact of the Covid-19 pandemic, most students agreed that they had access to the technology they needed to learn during the pandemic and many students stated that they enjoy working alone.
- xxv. Students who agreed that they enjoy working alone were more likely to aspire to go to university at age 18 compared to those who don't enjoy working alone.
- xxvi. Around half of the respondents reported finding learning more difficult since the pandemic began and this varied by gender. Females and those in the other/prefer not to say group were more likely to report finding learning difficult since the pandemic began than males.

xxvii. Just under a fifth of the students reported that their plans after Year 11 had changed since the pandemic, but this mainly seemed to be due to increased certainty in what they wanted to do.

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 10 students across 6 schools in the Warwickshire region. 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 Price¹ 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 Jamie Ormes, Sarah Farrell and Josh Pointon, Raising Aspirations Coordinators, including the collection of data within the schools.

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 10 students in six schools at the start and end of the academic year 2020-21. ThinkHigher Raising Aspirations Coordinators (RACs) oversaw this process in schools. 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 10 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 Uni Connect cohorts in schools 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 school year 2020-21.

The baseline questionnaire consists of three main parts:

- Part 1: Your aspirations for the future
- Part 2: Your views about school
- 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 school 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 what the students would like to do after they finish Year 11 and whether they would like to go to university when they are 18. Parts 2 and 3 are more substantial and draw on the works of Strand and Winston (2008) and Rosenberg (1965) respectively, as detailed in the sections below.

2.1.1 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. 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:

<p><i>Commitment to schooling</i></p> <ul style="list-style-type: none"> • 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 unless I'm ill • I work hard at school
<p><i>Academic self-concept</i></p> <ul style="list-style-type: none"> • 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 • I am good at working with others
<p><i>Home-support for learning</i></p> <ul style="list-style-type: none"> • Family members/carers help me with homework • Family members/carers reward me if I do well at school • Family members/ carers often ask me how I'm doing at school • I have a quiet place in which to do school work • Family members/carers usually come to open evenings/reviews
<p><i>Disaffection/negative peers</i></p> <ul style="list-style-type: none"> • I want to leave school as soon as possible and get a job • I often get bored in class • My friends distract me from paying attention in school • My friends laugh at those who do well at school

The responses are measured on a 4-point Likert scale: strongly agree, agree, disagree, strongly disagree, thus encouraging an 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 response scores across all statements (20 in total). 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.

2.1.2 Views about yourself: self-esteem

The Rosenberg Self-Esteem Scale (Rosenberg, 1965) was used to assess the participants' levels of self-esteem. 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.

2.1.3 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 questions 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 relatively small. This poses an analysis challenge with traditional statistical techniques being underpowered² 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.

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 420 students provided both baseline and follow-up questionnaire responses. Of these, 30 participants (7.1%) were Uni Connect students. Overall, 210 of the respondents were female (50.0%), 195 were male (46.4%), 11 identified as 'other' (2.6%) and 4 preferred not to state their gender (1.0%). Table 1 shows the number of student who completed both baseline and follow-up questionnaires per school.

Table 1: Responses per school to both baseline and follow-up questionnaires split by group, Uni Connect or control

School	Uni Connect	Control	Total
1	5 (4.3%)	111 (95.7%)	116 (100%)
2	4 (9.1%)	40 (90.9%)	44 (100%)
3	4 (5.6%)	67 (94.4%)	71 (100%)
4	2 (5.6%)	34 (94.4%)	36 (100%)
5	3 (8.8%)	31 (91.2%)	34 (100%)
6	12 (10.1%)	107 (89.9%)	119 (100%)
Total	30 (7.1%)	390 (92.9%)	420 (100%)

3.1 Aspiration to go to university at age 18

When asked if they would like to go to university at age 18, a total of 11 Uni Connect students (36.7%) stated yes at baseline and 14 students (46.7%) stated yes at follow-up. In comparison, 385 students in the control group gave responses at both time points to this question and 171 (44.4%) stated yes at baseline compared to 153 (39.7%) who said at follow-up (see Figure 1 on the next page). Full details can be seen in Tables A1 and A2, Appendix A.

In order to further explore changes in aspiration to go to university at age 18, the baseline and follow-up responses were compared and labelled as either 'aspiration towards university' or 'aspiration away from university'. For the purpose of this analysis, 'aspiration towards university' indicates a persistent aspiration to attend university at age 18 or a change that suggests movement towards this option (i.e. change from no to don't know or from no/don't know to yes). Aspiration away from university indicates persistent lack of aspiration to attend university or reduced consideration of this as an option (i.e. change from yes to no/don't know or from don't know to no, or persistent don't know response). The process of assigning these labels is shown in Appendix A, Figure A1.

Table 2 over the page summarises the aspirations towards and away from university at age 18 for the Uni Connect and control groups. There is an apparent shift away from university

in the control group compared to a hint of improved aspiration towards university in the Uni Connect group, albeit in a small sample of individuals.

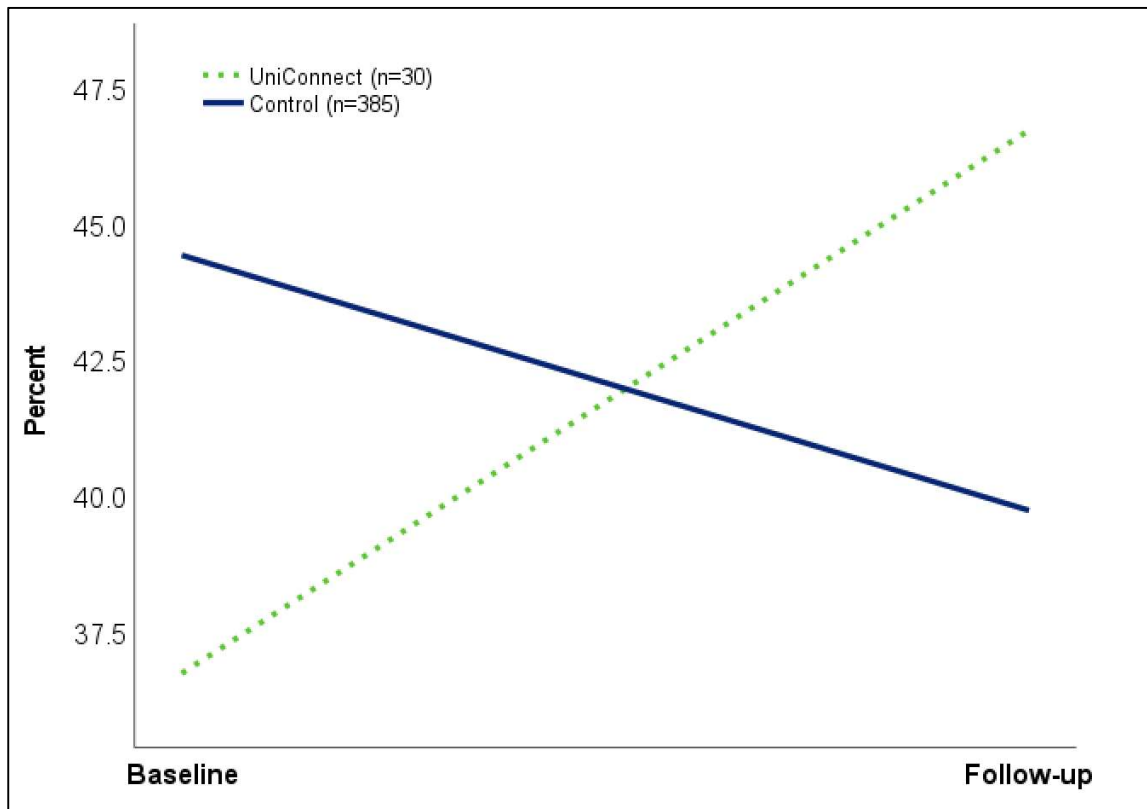


Figure 1: Percentage of students who responded 'yes' they would like to go to university at age 18 at baseline and follow-up by group (Uni Connect and control)

Table 2: Aspiration towards or away from university at age 18 by group (n = 415)

Aspirations	Group				Total	
	Uni Connect		Control*			
Towards university	16	(53.3%)	173	(44.9%)	189	(45.5%)
Away from university	14	(46.7%)	212	(55.1%)	226	(54.4%)
Total	30	(100.0%)	385	(100.0%)	415	(100.0%)

* 5 missing responses

A logistic regression model³ was fitted to investigate factors predictive of the outcome 'towards' or 'away from' university and the results are shown in Table 3. Three elements were found to be predictive of aspiration towards university; female gender, whether a

³ 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.

student knows someone who has been to university and improved attitude to education, as measured by the score from the work of Strand and Winston (2018) (see Section 2.1.1). The finding that a more positive attitude to education may positively influence aspiration to attend university suggests that interventions to improve perceptions of education may ultimately improve the chances of attending university.

From Table 3, males are significantly less likely to aspire towards university compared to females, with an adjusted odds ratio of 0.544, 95% CI (0.361, 0.819), $p = 0.004$. This means that the odds of a male participant achieving the towards university outcome are roughly half the odds of a female participant doing so, after taking into account whether the student knows someone who has been to university and their attitude to education.

Students who state that they know someone who has been to university have nearly double the odds of achieving the towards university outcome compared to those who state that they don't know someone who has been to university; adjusted odds ratio 1.929, 95% CI (0.978, 3.808), $p=0.058$. Similarly, a one unit increase in attitude to education score, where this is measured on a 4-point scale, doubles the odds of the towards university outcome; adjusted odds ratio 1.998, 95% CI (1.064, 3.751), $p = 0.031$.

After taking the above factors into account, group (Uni Connect or control) was not found to be significant ($p = 0.372$), but the corresponding odds ratio does hint at increased aspiration towards university in the Uni Connect group compared to the control group; adjusted odds ratio 1.437, 95% CI (0.648, 3.187). The group element is therefore retained in Table 3.

Table 3: Results of the logistic regression to investigate factors predictive of aspiration towards university (n = 414*)

Attribute	Regression coefficient (β)	Adjusted odds ratio (with 95% CI)		p value
Gender:				
<i>Other/not stated</i>	0.199	1.220	(0.399, 3.734)	0.727
<i>Male</i>	-0.609	0.544	(0.361, 0.819)	0.004
<i>Female (ref[#])</i>	0	-	-	-
Do you know someone who has been to uni?				
<i>Not sure</i>	0.016	1.016	(0.450, 2.293)	0.969
<i>Yes</i>	0.657	1.929	(0.978, 3.808)	0.058
<i>No (ref)</i>	0	-	-	-
Group				
<i>Uni Connect</i>	0.363	1.437	(0.648, 3.187)	0.372
<i>Control (ref)</i>	0	-	-	-
Attitude to education score	0.692	1.998	(1.064, 3.751)	0.031

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

3.1.1 Influence of knowing someone who has been to university

Focusing just on the baseline aspiration to go to university at age 18 (yes, no, don't know), in keeping with the logistic regression model results presented in Table 3 there is evidence that the desire to attend university at age 18 differs according to whether a participant knows someone who has been to university⁴. In particular, 50.5% (150/297) of those who know someone who has been to university would like to attend at age 18 compared to 25.0% (12/48) of those who don't know someone who has been to university. Of those who were not sure if they know someone who has been to university, 28.6% (20/70) stated that they would like to attend at age 18 (Table 4).

Table 4: Aspiration to attend university at age 18 according to whether the respondent knows someone who has been to university (n = 415*, baseline responses)

Do you know anyone who has been to university?	When you are 18, would you like to go to university?			Total
	Yes	No	Don't know	
Yes	150 (50.5%)	53 (17.8%)	94 (31.6%)	297 (100%)
No	12 (25.0%)	14 (29.2%)	22 (45.8%)	48 (100%)
Not sure	20 (28.6%)	22 (31.4%)	28 (40.0%)	70 (100%)
Total	182 (43.9%)	89 (21.4%)	144 (34.7%)	415 (100%)

* 5 missing values

Figure 2 on the next page shows the percentage of respondents who said they would like to attend university at age 18 broken down by whether they know someone who has been to university and their relationship with that person. Of those who know someone who has been to university, the percentage of participants who said yes they would like to go to university at age 18 appears to decrease steadily as the relationship becomes more distant. For instance, 66.3% (69/104) of those who have parents or guardians who attended university said they would like to go at age 18 compared to 43.1% (75/174) of those who know a family member and 31.6% (6/19) of those who know a non-family member (Table A3, Appendix A).

Numbers of Uni Connect students are too small to draw meaningful conclusions on whether the relationship with a person influences the aspiration to go to university specifically in this group. However, it should be noted that from this evaluation there is no evidence of a difference in the percentage of Uni Connect students and control group students who know someone who has been to university⁵; 75.9% (22/29) versus 71.1% (276/388) respectively (Table A4, Appendix A).

⁴ Chi squared test: $\chi^2(4, n=415) = 20.075, p < 0.001$

⁵ Chi squared test: $\chi^2(1, n=417) = 0.296, p = 0.587$

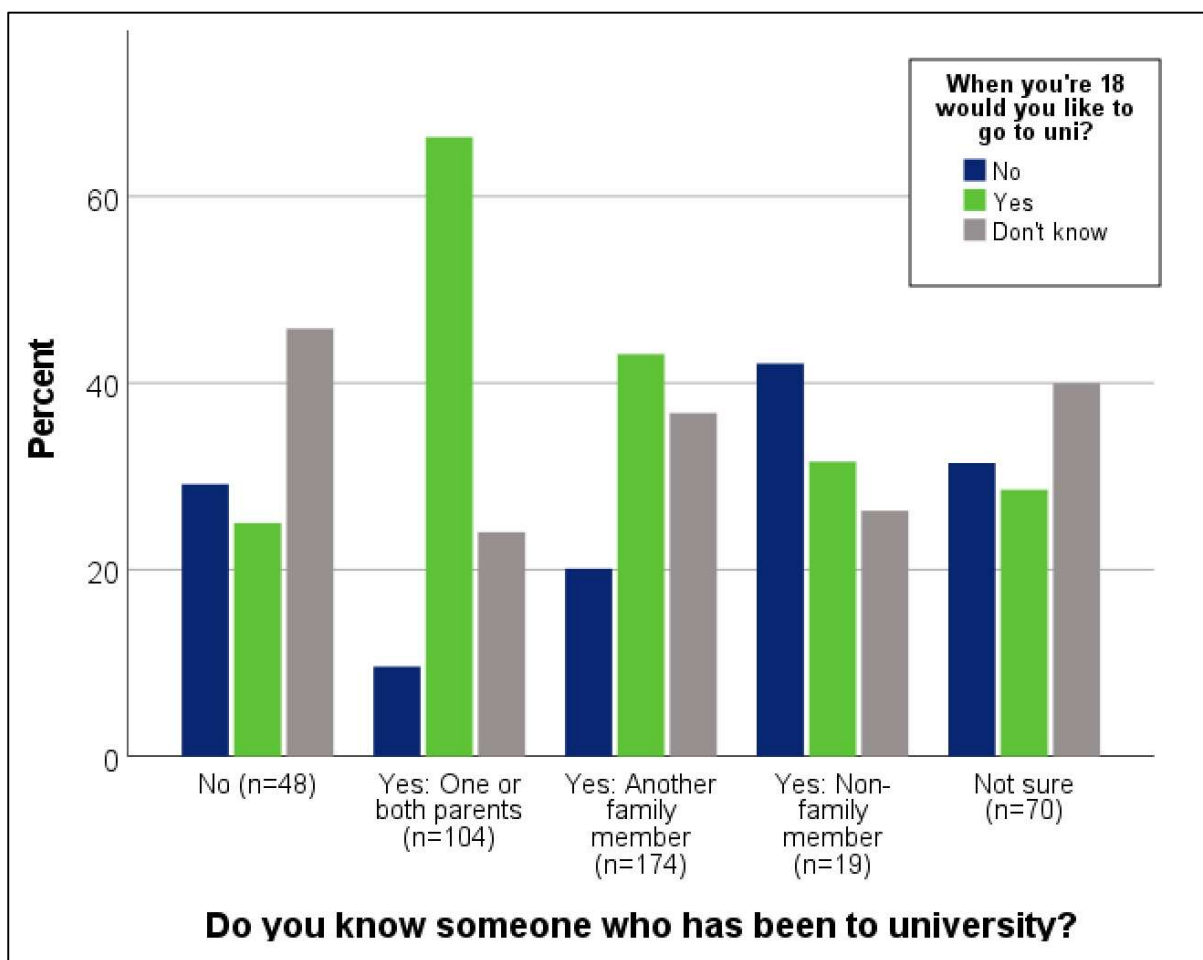


Figure 2: Aspiration to go to university at age 18 according to whether a respondent knows someone who has been to university and their relationship with that person. Baseline responses; n = 415.

3.2 Attitudes to education

The score based on the work of Strand and Winston (2008) was used to assess attitudes to education, as outlined in Section 2.1.1 (score range 1 to 4). Figure 5 on page 18 shows the baseline and follow-up scores by group. The distributions look broadly symmetric and the mean scores, as shown in Table 5, are very similar across both time-points and groups. Overall, the scores show that the pupils are, on average, expressing a positive attitude to education.

The mean score for the Uni Connect pupils remained the same between the two time-points whereas the mean score for the control group showed a statistically significant decrease ($p < 0.001$)⁶. However, we need to be mindful that the actual difference of -0.08 in the control

⁶ Paired t test: $t = 5.984$, $df = 389$, $p < 0.001$

group mean scores is not very large; statistical significance does not necessarily indicate practical importance⁷.

Table 5: Attitude to education mean scores by group (with standard deviations)

Group	Baseline	Follow-up
Uni Connect (n = 30)	3.03 (0.37)	3.03 (0.29)
Control (n = 390)	3.08 (0.34)	3.00 (0.35)

Figure 3 shows the mean scores for the four subscales at baseline and follow-up, namely commitment to schooling, academic self-concept, home support for learning and disaffection/influence of negative peers, by group. The mean values are given in Table A5 (Appendix A). We can see that the mean scores for the subscales are comparable for the Uni Connect and control students and, indeed, explorations of group differences provided no evidence of statistical significance.

Students appear most positive about their commitment to schooling with mean scores around 3.4 out of 4, and least positive in relation to disaffection/negative peers with mean scores around 2.7 out of 4.

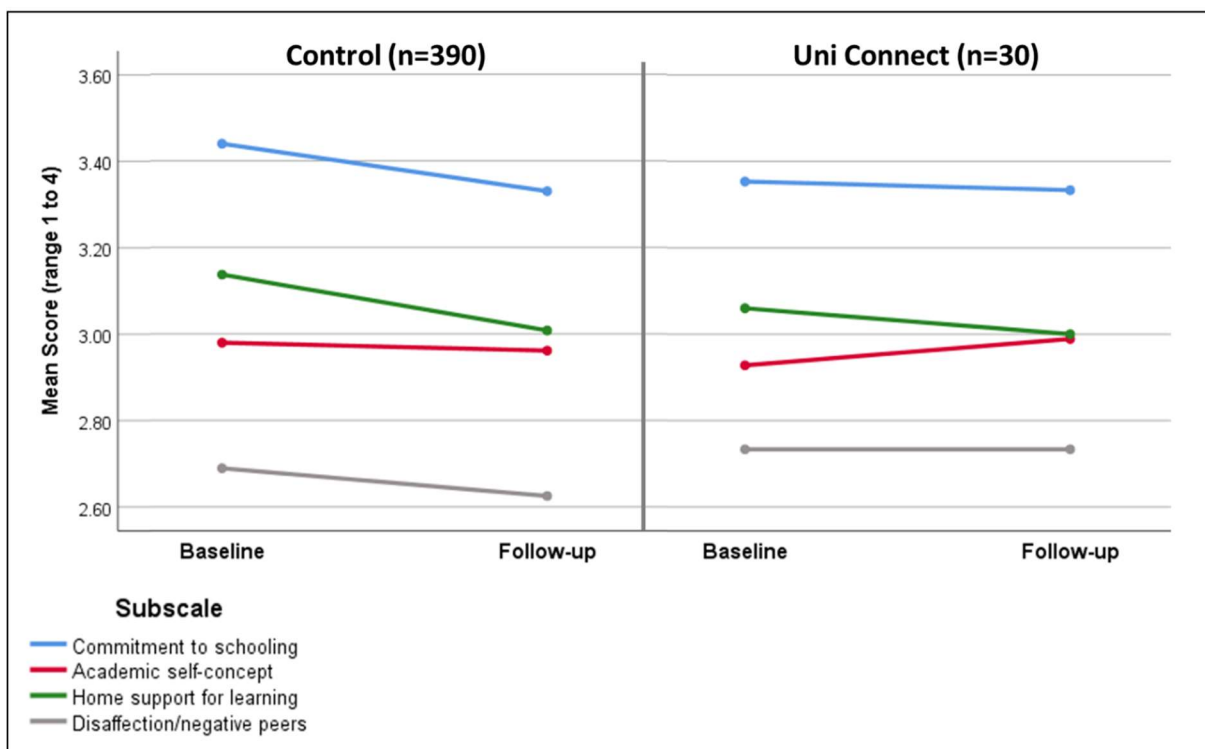


Figure 3: Mean scores for the Strand and Winston (2008) subscales by group at baseline and follow-up

⁷ For large samples, statistical significance can be achieved even for small effects. It is therefore important to consider what constitutes an interesting and meaningful finding in the real-world context.

Focusing on the participants across the whole cohort without splitting by group, a two-way repeated measures analysis of variance (ANOVA) was conducted to investigate the mean scores for the different subscales across the two time points (baseline and follow-up).

The analysis showed a significant interaction between the subscale and time point ($p < 0.001$)⁸, which means that the pattern of change in the mean scores between baseline and follow-up is not the same across all subscales. Looking at Figure 4 below, this difference appears to be driven by the academic self-concept subscale where the baseline and follow-up mean scores remain stable compared to the other scales where there is an evident decrease in mean score between the two time-points. These observations are supported by post-hoc paired t tests for each subscale using a Bonferroni adjustment which yielded statistically significant differences for all but the academic self-concept subscale. These statistical results can be seen in Table A6 in Appendix A.

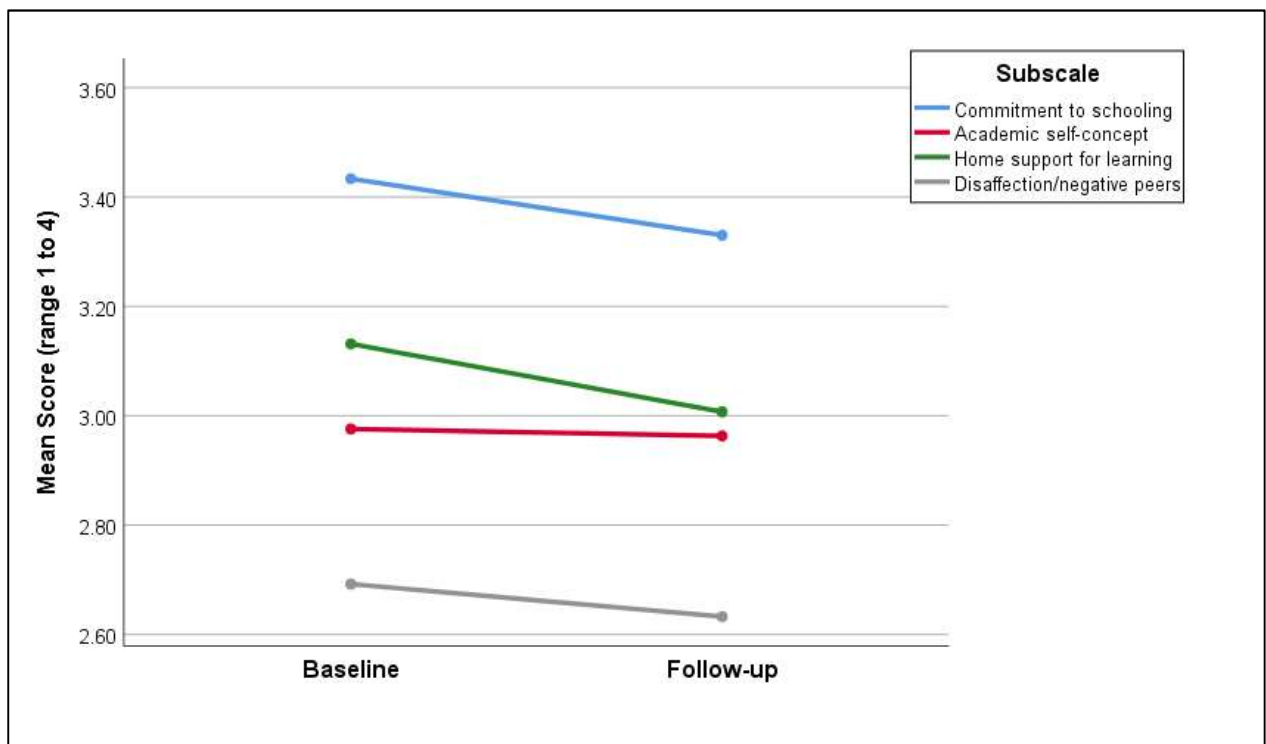


Figure 4: Mean scores for the Strand and Winston (2008) subscales (n = 420)

⁸ The two-way repeated measures ANOVA revealed a statistically significance interaction between subscale and time (baseline versus follow-up), which means that the pattern of change in the mean scores differs for one or more pairs of subscales between the two time-points, $F(2.623, 1099.196) = 8.227, p < 0.001$ (Greenhouse-Geisser Correction used, epsilon = 0.874).

What have we learned about aspirations towards university and attitudes to education?

- The percentage of Uni Connect students who want to attend university at age 18 increased between baseline and follow-up compared to a decrease in the control-group students.
- Females are more likely to 'aspire towards' university than males.
- A more positive attitude to education improves aspiration towards university.
- Students are more likely to want to go to university at age 18 if they know someone who has been to university, and this aspiration is strengthened by the closeness of the relationship with the person who has been to university.
- This highlights the importance of positive role models in raising aspirations.
- The mean attitude to education score remained stable between the start and end of the academic year 2020-21 for the Uni Connect students but showed a small, but statistically significant, decrease for the control students.
- Mean academic self-concept score (i.e. perceptions of oneself as a learner) remained stable over the period of the evaluation, but commitment to schooling, home support for learning and disaffection/influence of negative peers all saw a statistically significant decrease in mean score. This reflects a more negative attitude to education between the start and end of the academic year.

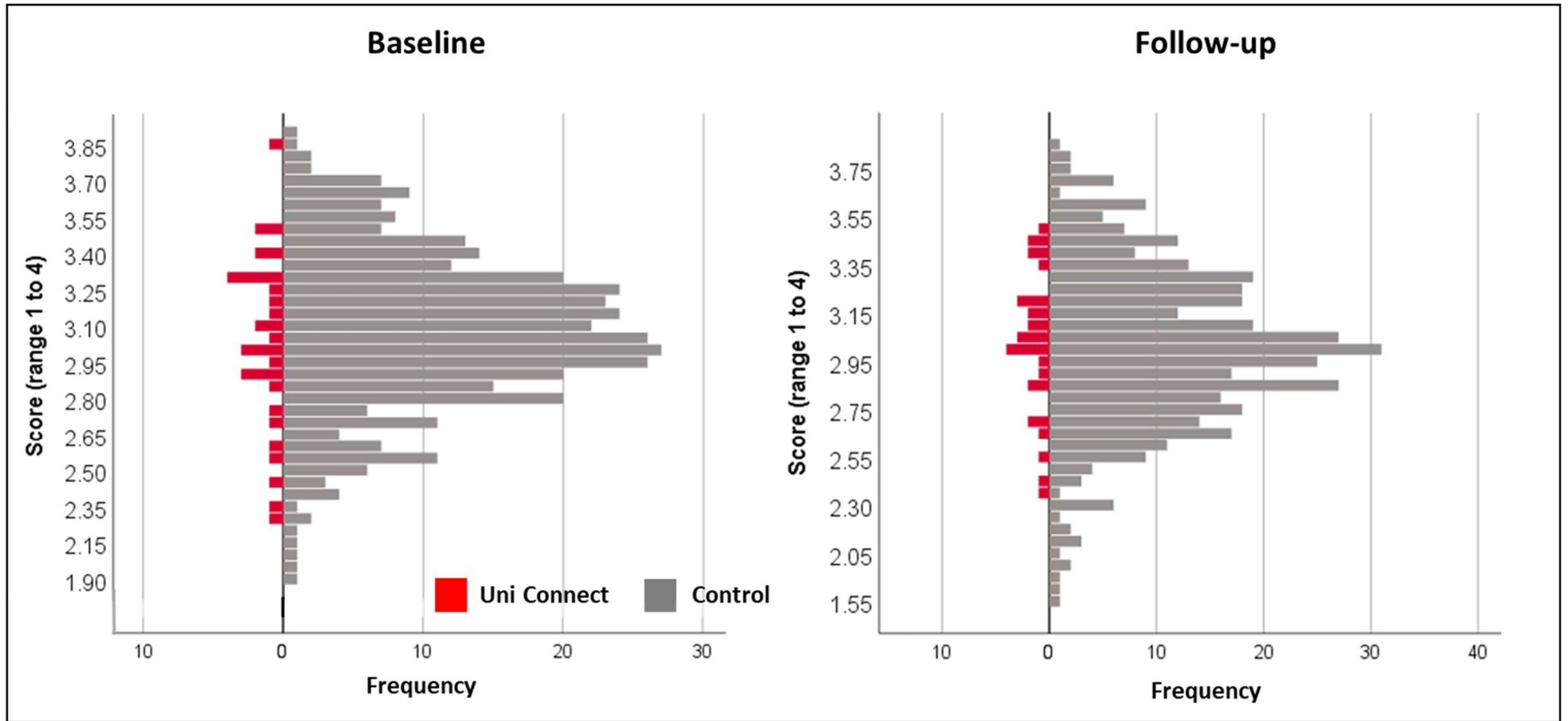


Figure 5: Scores to measure attitudes to education (Strand and Winston, 2008); n = 420

3.3 Self-esteem

Self-esteem was measured at baseline and follow-up using the Rosenberg Self-Esteem Scale Rosenberg (1965) – see Section 2.1.2. A mean score was derived for each student ranging from 0 to 3, with a higher score indicating higher self-esteem. 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)⁹.

3.3.1 Self-esteem by group (Uni Connect versus control)

The box plots in Figure 6 show the distribution of self-esteem scores at baseline and follow-up for the Uni Connect and control groups, and Table 6 provides some basic descriptive statistics. For both groups, mean self-esteem score is around 1.7 and remains stable across the two time points. According to the cut-point of 1.5, around a third of the participants in this study reported low self-esteem.

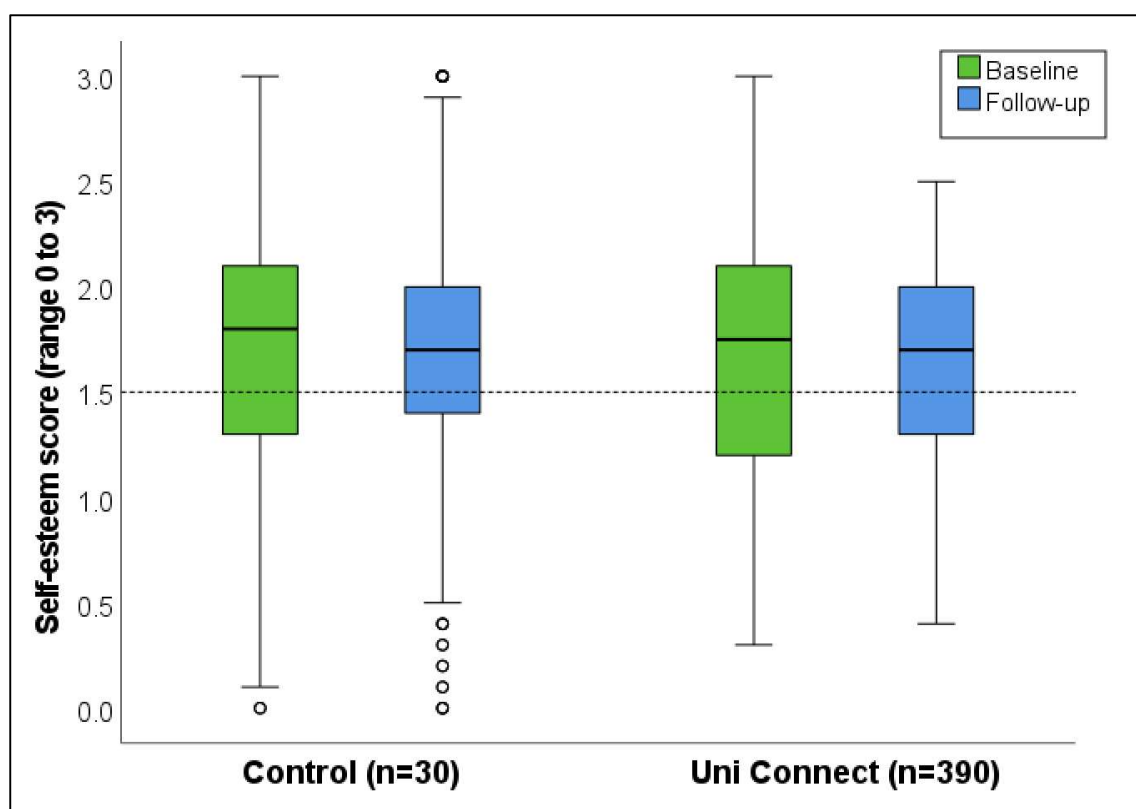


Figure 6: Rosenberg self-esteem scores (range 0 to 3) at baseline and follow-up by group. The thick black lines in the centre of each coloured box represent the median score, and the height of each box represents the interquartile range for the corresponding group. This tells us the range of the middle 50% of the data values.

⁹ 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.

Table 6: Descriptive statistics for self-esteem score by group and time-point

	Baseline		Follow-up	
	Uni Connect (n=30)	Control (n=390)	Uni Connect (n=30)	Control (n=390)
Mean	1.67	1.71	1.66	1.70
Std. deviation	0.73	0.64	0.56	0.60
Max	3	3	2.5	3
Min	0.3	0	0.4	0
% (n) with low self-esteem (i.e. score < 1.5)	36.7% (n=11)	30.8% (n=120)	33.3% (n=10)	29.5% (n=115)

3.3.2 Self-esteem across schools

Figure 7 shows the mean self-esteem scores at baseline and follow-up for the six participating schools.

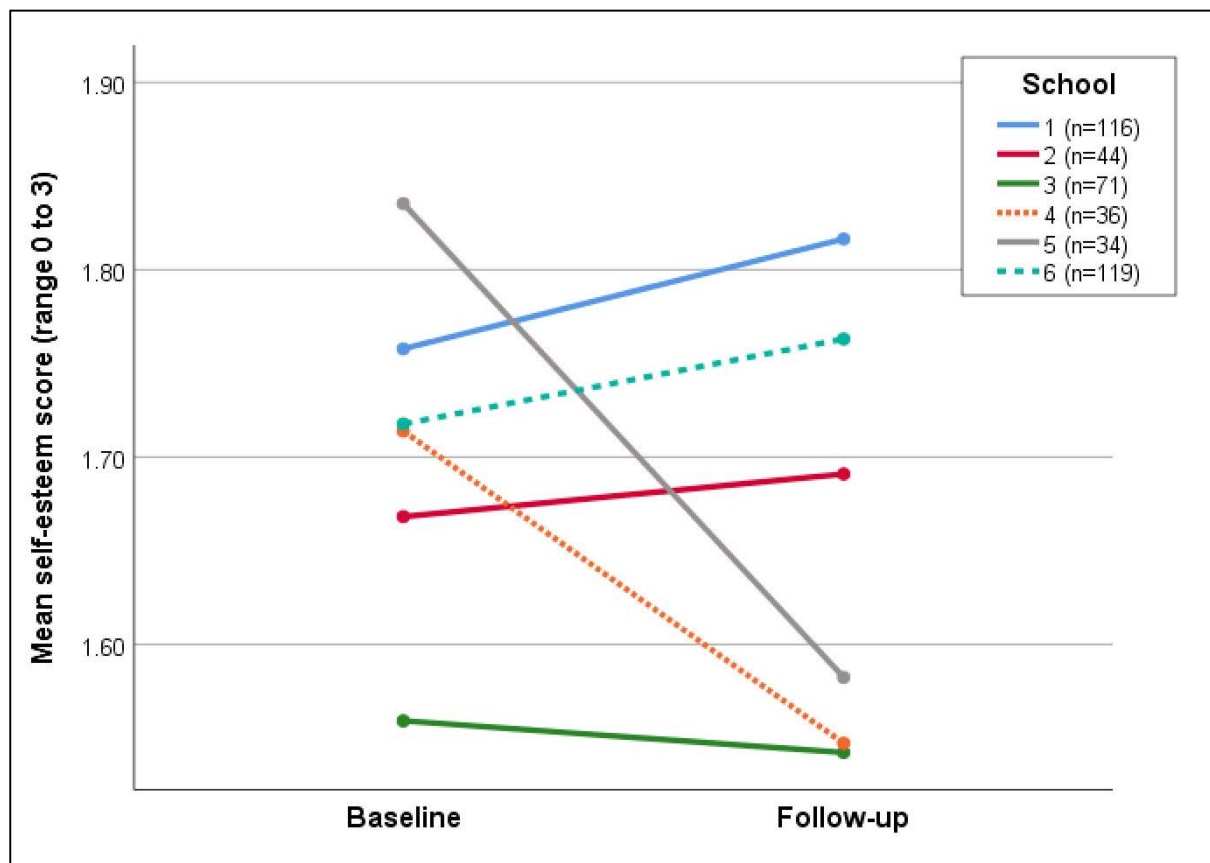


Figure 7: Mean self-esteem score by school at baseline and follow-up (n=420)

Variability was observed in the mean self-esteem scores both between schools and within schools over time (Figure 7). A two-way mixed ANOVA was conducted to investigate

whether the pattern of change in mean self-esteem score between the two time-points is different across schools¹⁰, and indeed found this to be the case; $F(5,414) = 3.28$, $p = 0.006$. In other words, across the two time-points self-esteem has not changed in a consistent direction for students in the different schools, as seen by the intersecting lines in Figure 7.

To investigate further, paired t tests were conducted separately for each school to compare the mean self-esteem scores at baseline and follow-up, with a Bonferroni correction to adjust for post-hoc testing¹¹ (Table 7). There was evidence of a decrease in mean self-esteem score between baseline and follow-up for school 5 ($p=0.002$ which is significant according to the 0.008 cut-point). This decrease can be visualised in Figure 7 on the previous page. With the Bonferroni adjustment, the observed decrease in mean self-esteem score for school 4 did not achieve significance, but is still important to note when thinking about tailoring interventions at the school-level.

Table 7: Paired t tests to compare baseline and follow-up mean self-esteem scores for each school with a Bonferroni correction for multiple testing (cut-point for significance 0.008)

School	Mean score (SD)		t value (df)	p value
	Baseline	Follow-up		
1 (n=116)	1.76 (0.73)	1.82 (0.62)	-1.281 (115)	0.203
2 (n=44)	1.67 (0.68)	1.69 (0.65)	-0.305 (43)	0.762
3 (n=71)	1.56 (0.69)	1.54 (0.66)	0.247 (70)	0.806
4 (n=36)	1.71 (0.62)	1.55 (0.53)	2.166 (35)	0.037
5 (n=34)	1.84 (0.51)	1.58 (0.53)	3.458 (33)	0.002
6 (n=119)	1.72 (0.56)	1.76 (0.50)	-1.149 (118)	0.253

SD = Standard deviation

For the six schools included in this study, the observed differences in self-esteem suggest potential value in tailored work around school culture change and self-esteem building. While there is some concern over the drop in self-esteem for schools 4 and 5, this could potentially be explained by disruption due to Covid-19 and the fact that sample sizes for these two schools are relatively low, thus calling into question the representativeness of the results. However, perhaps a more important observation is the consistently low self-esteem in school 3 where the average score hovers just above the cut-point of 1.5 at both baseline and follow-up.

¹⁰ This amounts to investigating the two-way interaction between time (baseline or follow-up) and school, where time is the 'within subjects' factor and school is the 'between subjects' factor.

¹¹ The usual cut-point of 0.05 to determine statistical significance was divided by 6, the number of tests conducted, to derive a new cut-point of 0.008 for significance.

3.3.3 Self-esteem and gender

An investigation was undertaken to compare self-esteem between the three gender groups; male, female and other/prefer not to say. There is no suggestion from Figure 8 below of a difference in the pattern of change in self-esteem over time for the three gender groups (i.e. the lines look fairly parallel which indicates that the mean scores change in roughly the same way between baseline and follow-up), and this is supported by the lack of interaction between time and gender in a two-way mixed ANOVA, $F(2,417) = 1.88$, $p = 0.154$.

However, there is evidence of a difference in mean self-esteem score between the gender groups at baseline and, separately, at follow-up. One-way ANOVA was used separately at the two time-points to compare the mean self-esteem scores between the three groups and, in both cases, found strong evidence to suggest differences; Baseline: $F(2,417) = 23.967$, $p < 0.001$; Follow-up: $F(2,417) = 21.923$, $p < 0.001$. Further post-hoc tests showed significantly higher self-esteem in males compared to females at both baseline and follow-up ($p < 0.001$ in both cases), and in males compared to those in the other gender group ($p < 0.001$ at both time points). There was no evidence of a difference in mean self-esteem score between females and those in the other group at baseline ($p = 0.335$), but this difference was significant at follow-up ($p = 0.017$). This can be seen in Figure 8 as the increase in width between the blue and green lines. See Table A7 in the Appendix for full results.

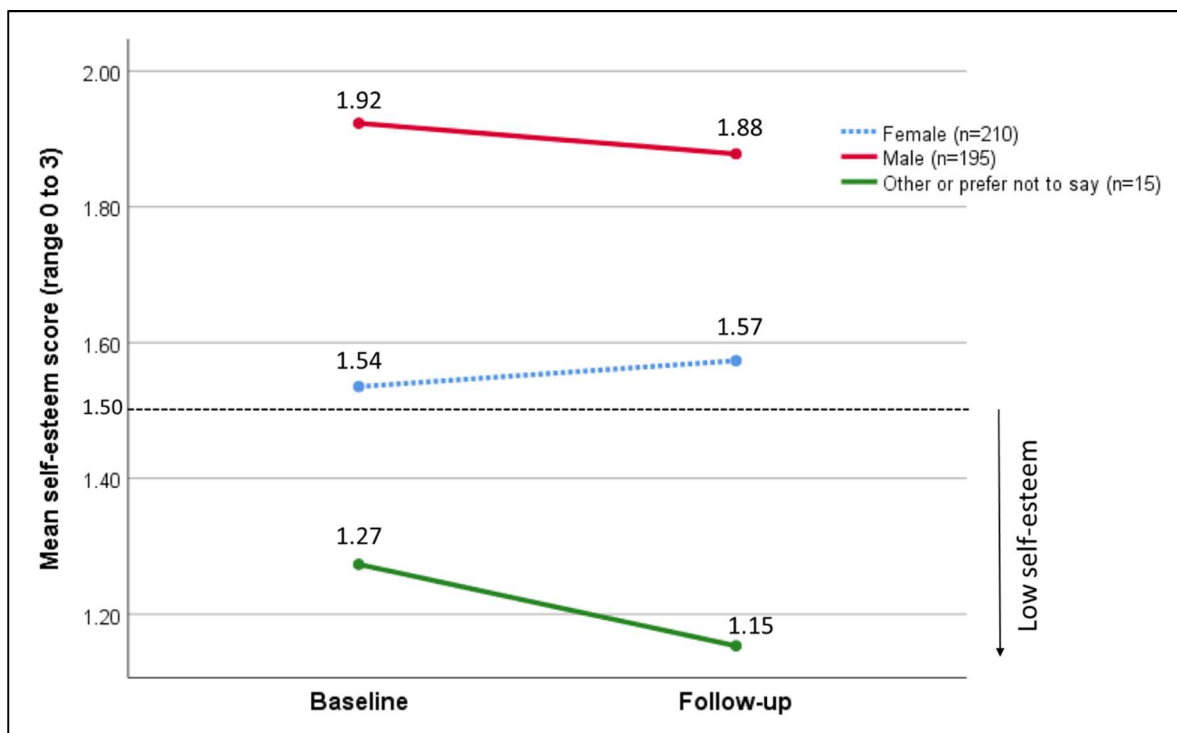


Figure 8: Mean self-esteem score by gender at baseline and follow-up (n=420)

These differences flag areas of concern, particularly for those students in the other/prefer not to say gender group where self-esteem appears lower than that of both males and females. For context, it is also worth observing in Figure 8 above that the mean self-esteem

score for females lies just above the 1.5 cut-point for low self-esteem at both the start and end of the academic year and the mean scores for those in the other/prefer not to say group are even lower at both time points.

3.3.4 Relationship between self-esteem and attitude to education

Having looked at differences in self-esteem by group (Uni Connect versus control), school and gender, we now explore the relationship between a student's self-esteem and their attitude to education, focusing in particular on academic self-concept (i.e. their perceptions of themselves as a learner).

Figure 9 shows the relationship between self-esteem score and overall attitude to education score (Strand and Winston, 2008), both measured at baseline. There is a moderate positive correlation between self-esteem and attitude to education (Pearson's correlation coefficient $r = 0.57$) which means that higher self-esteem is associated with a more positive attitude to education. A simple linear regression indicates that a 1-point increase in self-esteem score (measured on a 0 to 3 scale) increases the attitude to education score, on average, by 0.29 points, measured on a 1 to 4 scale - see line of best fit and associated equation in Figure 9.

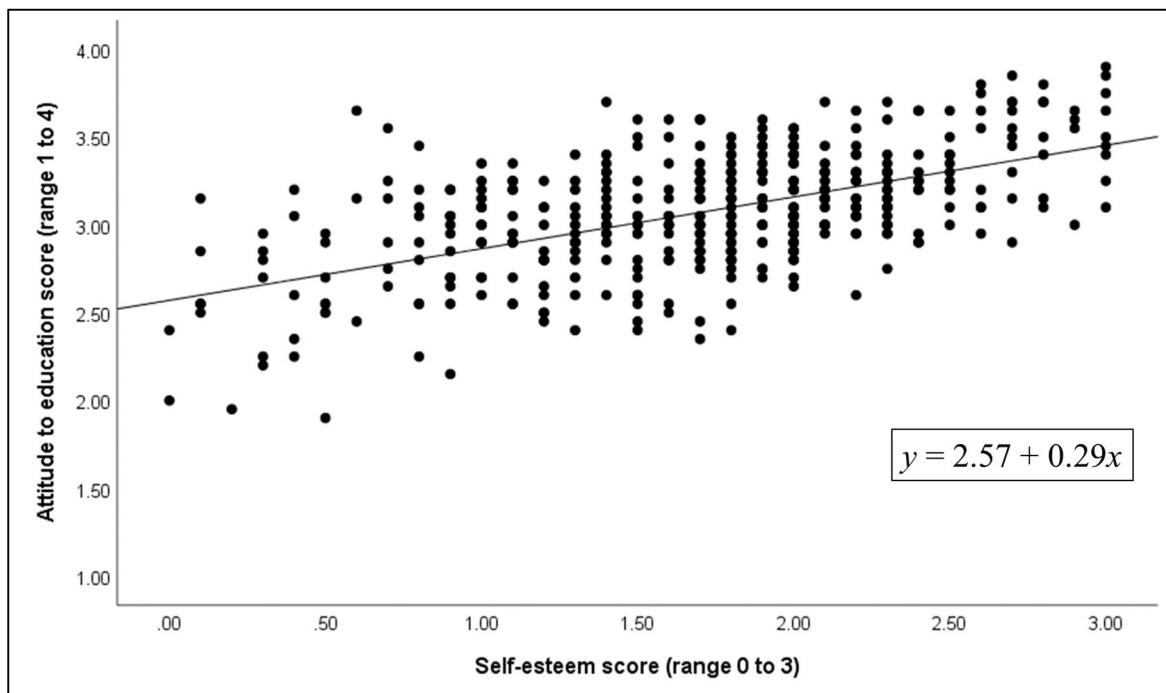


Figure 9: Relationship between self-esteem and attitude to education, both measured at baseline (n = 420)

Turning attention to the academic self-concept subscale which focuses more specifically on perceptions of oneself as a learner (Figure 10), there is a stronger positive correlation between self-esteem and academic self-concept compared to the association between self-esteem and overall attitude to education (Pearson's correlation coefficient $r = 0.65$). A simple linear regression indicates that a 1-point increase in baseline self-esteem score is

associated with an increase in baseline academic self-concept score of 0.45 points, on average.

With these relationships in mind, an important question is whether improving a student's self-esteem could improve their feelings toward education, particularly towards themselves as a learner (academic self-concept), with a view to strengthening these building blocks for attainment and aspiration raising. However, while self-esteem likely plays an important role in shaping a student's perceptions of learning, it is equally important to investigate the influence of this alongside other elements such as gender and school. This is considered in the next section.

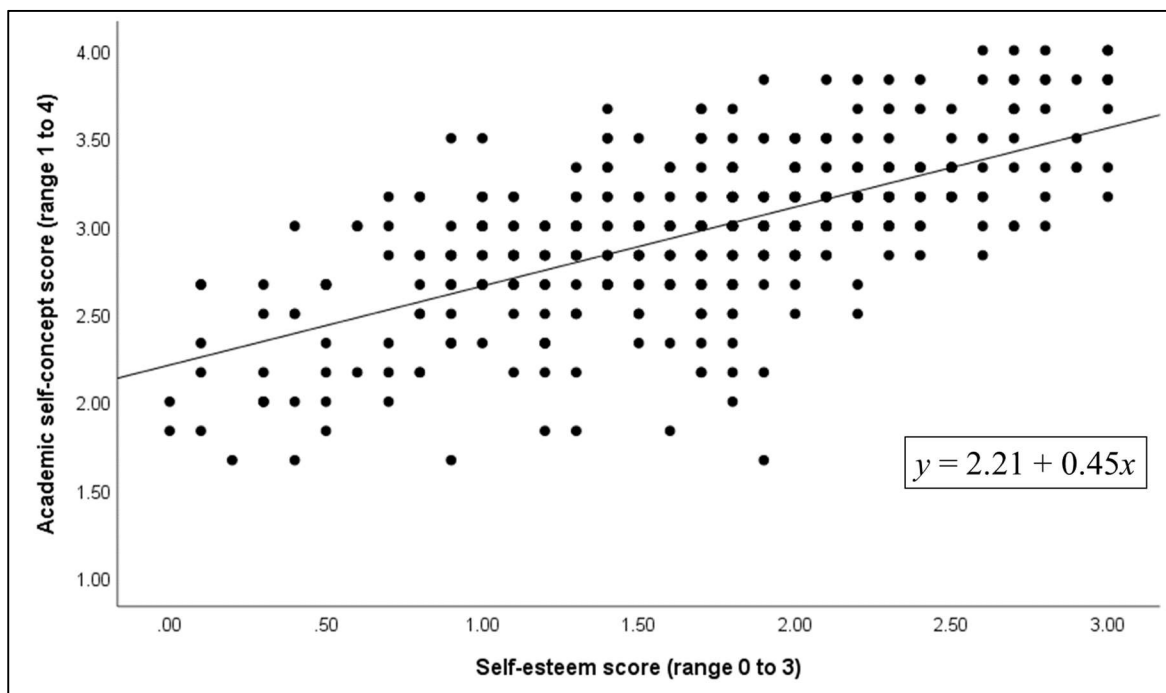


Figure 10: Relationship between self-esteem and academic self-concept, both measured at baseline (n = 420)

3.3.5 What influences academic self-concept?

In order to explore factors that have an impact on academic self-concept, a multiple regression model was fitted with follow-up academic self-concept score as the outcome of interest, adjusting for baseline academic self-concept score in the model¹². The aim of this model was to understand more about elements that have an impact on academic self-concept at the end of the academic year, after taking into account a student's academic self-concept at the beginning of the year. After making this adjustment, baseline self-esteem

¹² A backward elimination approach was used to fit the linear regression model, removing potential predictors one at a time according to a cut-point of $p = 0.05$, with those factors obtaining a p value less than this (or very close to it) being retained in the model. 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.

score and gender were both retained in the model as significant predictors of follow-up academic self-concept (Table 8). Group, Uni Connect or control, was not significant in the model and was thus not retained in the model.

Interestingly, after taking baseline self-esteem score and baseline academic self-concept score into account, there was no difference in follow-up academic self-concept score for females and males ($p = 0.101$). However, the effect of being in the other/prefer not to say gender group remained significant, with those in this group having a follow-up academic self-concept score on average 0.324 points lower than those in the female reference group ($p < 0.001$). In other words, even after accounting for the effects of self-esteem and baseline academic self-concept, belonging to the 'other' gender group appears to lead to a more negative perception of learning at the end of the school year.

On the other hand, a one-point increase in baseline self-esteem score leads to an average increase in follow-up academic self-concept score of 0.127 points, assuming gender and baseline academic self-concept score remain fixed. As such, it appears that improving self-esteem, regardless of gender, has a beneficial impact on academic self-concept, thus adding weight to the notion that improving self-esteem may improve a person's perception of themselves as a learner.

Table 8: Linear regression to investigator factors predictive of academic self-concept score at the end of the academic year ($n = 420$)

Attribute	Regression coefficient (β)	95% CI	p value
Gender:			
Other/not stated	-0.324	(-0.496, -0.151)	< 0.001
Male	-0.056	(-0.123, 0.011)	0.101
Female (ref)	0	-	-
Academic self-concept score at baseline	0.579	(0.486, 0.672)	< 0.001
Baseline self-esteem score	0.127	(0.061, 0.194)	< 0.001

What have we learned about self-esteem?

- There are differences in self-esteem levels across schools with two schools showing a dip in self-esteem across the academic year 2020-21.
- Participants in one school reported average self-esteem levels that hover just above the cut-point for low self-esteem at both baseline and follow-up.
- Gender differences exist with males showing consistently higher self-esteem than both females and those in the other/prefer not to say gender group.
- Those in the other/prefer not to say gender group report consistent low self-esteem (i.e. mean scores < 1.5) and this worsened between the start and end of the school year.
- Self-esteem has a positive relationship with academic self-concept, thus raising the question of whether improving self-esteem could improve perceptions of learning and, ultimately, aspirations and attainment.
- After accounting for self-esteem, those in the other/prefer not to say gender group still appear to have more negative perceptions of learning.

4. Cross-sectional analysis – summer 2021

Throughout the evaluation period, data collection was interrupted as a result of the Covid-19 pandemic which led to lockdowns and student and staff absences. As such, the number of students who completed follow-up questionnaires was higher than the number who completed both baseline and follow-up. To make use of this additional data, this section provides a cross-sectional analysis of the responses at the end of the academic year 2020-21, thus giving a snapshot of the student views at this time point. We also report findings from some additional questions added into the evaluation to explore the students' experiences of Covid-19.

After removing a small number of participants due to missing data in parts 2 and 3 of the questionnaire, a total of 605 students completed a follow-up questionnaire and gave consent for their data to be analysed. Of these, 51 participants (8.4%) were Uni Connect students. Overall, 297 of the respondents were female (49.1%), 283 were male (46.8%) and 25 identified as 'other' or preferred not to say (4.1%). Students from one school did not complete the Covid-specific questions, so response rates in some of the outputs below are impacted by this. Table 9 shows the response rates by school, broken down by group.

Table 9: Responses per school to the follow-up questionnaire split by group, Uni Connect or control

School	Uni Connect	Control	Total
1	12 (8.1%)	137 (91.9%)	149 (100%)
2	6 (6.3%)	90 (93.8%)	96 (100%)
3	7 (7.0%)	93 (93.0%)	100 (100%)
4	7 (10.3%)	61 (89.7%)	68 (100%)
5	6 (10.0%)	54 (90.0%)	60 (100%)
6	13 (9.8%)	119 (90.2%)	132 (100%)
Total	51 (8.4%)	554 (91.6%)	605 (100%)

4.1 Aspiration to go to university at age 18

Table 10 shows the responses to the question, "When you are 18, would you like to go to university?" for the Uni Connect and control students. There is no statistical evidence of a difference in response to this question according to group¹³, but there is, once again, a suggestion of positive outcomes in the Uni Connect group. A total of 48% (24/50) of the Uni Connect students said that they would like to go to university at age 18 compared to 38.5% (213/553) of the control students.

¹³ Chi squared test: $\chi^2(2, n=603) = 1.811, p = 0.404$

Table 10: Aspiration to go to university at age 18 by group (follow-up time-point only)

Would you like to go to university at 18?	Group				Total	
	Uni Connect		Control			
Yes	24	48.0%	213	38.5%	237	39.3%
No	9	18.0%	128	23.1%	137	22.7%
Don't know	17	34.0%	212	38.3%	229	38.0%
Total	50	100.0%	553	100.0%	603*	100.0%

* 2 missing values

In line with the findings in Section 3.1.1, the results in Table 11 below suggest that the desire to go to university is impacted by whether a student knows someone who has been to university¹⁴. In particular, 44.0% (n=190) of those who said 'yes', they know someone who has been to university, stated that they would like to go to university at age 18 compared to 29.1% (n=25) of those who said 'no', they don't know someone who has been to university. It can also be seen in Figure 11 on the next page that the closeness of the relationship with the person who has been to university appears to have an impact on the desire to go, as discussed previously in Section 3 (see Figure 2, page 14).

Table 11: Aspiration to attend university at age 18 according to whether the respondent knows someone who has been to university (n = 602*, follow-up time-point only)

Do you know anyone who has been to university?	When you are 18, would you like to go to university?			Total
	Yes	No	Don't know	
Yes	190 (44.0%)	80 (18.5%)	162 (37.5%)	432 (100%)
No	25 (29.1%)	34 (39.5%)	27 (31.4%)	86 (100%)
Not sure	22 (26.2%)	23 (27.4%)	39 (46.4%)	84 (100%)
Total	237 (39.4%)	137 (22.8%)	228 (37.9%)	602 (100%)

* 3 missing values

¹⁴ Chi squared test: $\chi^2(4, n=602) = 25.787, p < 0.001$

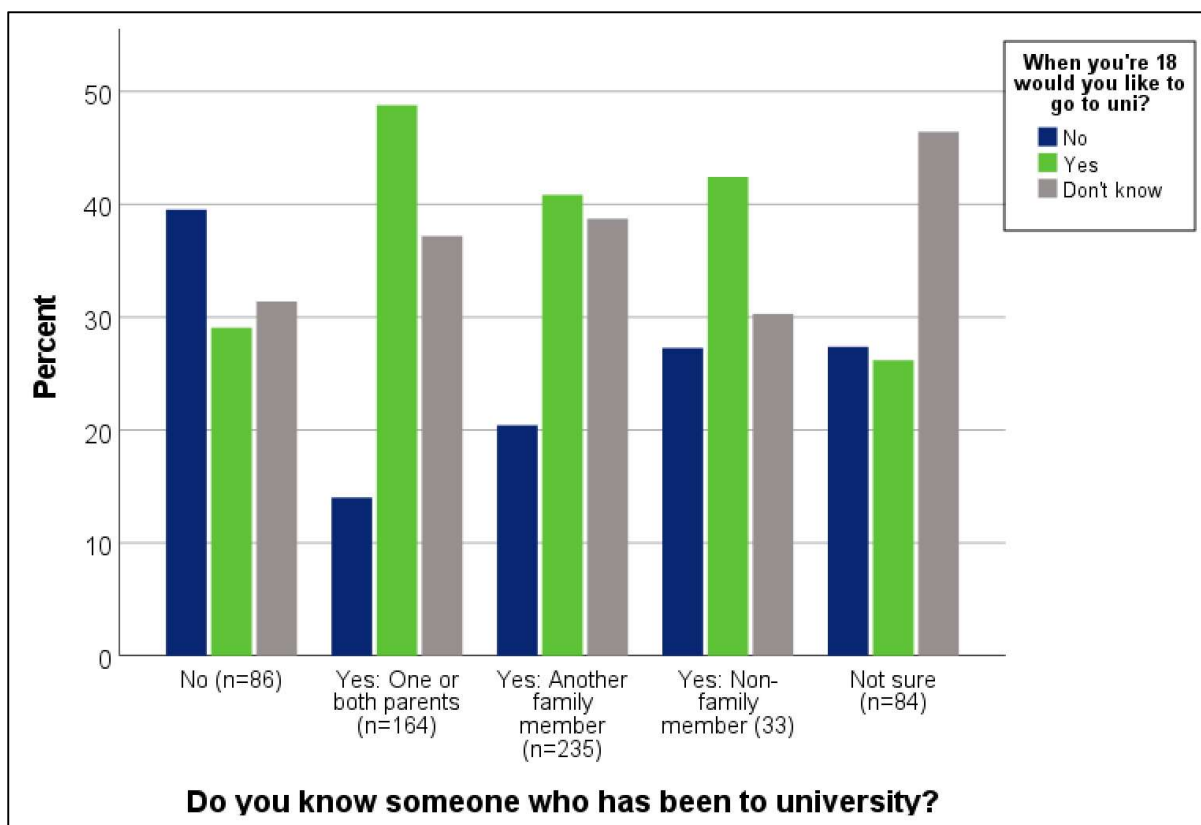


Figure 11: Aspiration to go to university at age 18 according to whether a respondent knows someone who has been to university and their relationship with that person. Follow-up responses; n = 602.

4.2 The impact of Covid-19

In part 2 of the follow-up questionnaire, alongside the questions relating to attitudes to education, the pupils were asked to state their level of agreement with an additional two statements related to the change in schooling conditions under the 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 12 and 13 on the next page show the levels of agreement with these statements by group.

The majority of the students appear to have had access to the technology they needed to learn from home during the pandemic, with just 27 students (4.5%) disagreeing with this statement¹⁵. A total of 410 students (67.8%) agreed or strongly agreed that they enjoy working on their own. There are no clear differences between the two groups, Uni Connect or control, in response to these two statements.

¹⁵ Note: these percentages are a little higher if calculations ignore missing responses.

Table 12: 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	1	2.0%	4	0.7%	5	0.8%
Disagree	2	3.0%	20	3.6%	22	3.6%
Agree	14	27.5%	205	37.0%	219	36.2%
Strongly agree	27	52.9%	263	47.5%	290	47.9%
Missing	7	13.7%	62	11.2%	69	11.4%
Total	51	100.0%	554	100.0%	605	100.0%

Table 13: I enjoy working on my own

Level of agreement	Group				Total	
	Uni Connect		Control			
Strongly disagree	0	0.0%	28	5.1%	28	4.6%
Disagree	8	15.7%	88	15.9%	96	15.9%
Agree	19	37.3%	239	43.1%	258	42.6%
Strongly agree	16	31.4%	136	24.5%	152	25.1%
Missing	8	15.7%	63	11.4%	71	11.7%
Total	51	100.0%	554	100.0%	605	100.0%

After combining the disagree/strongly disagree categories and the agree/strongly agree categories, students who do not enjoy working alone appear to be less likely to aspire to go to university at age 18, with 24.3% (n=30) of those who don't like working alone stating 'yes', they would like to go to university at age 18, compared to 43.6% (n=178) of those who enjoy working alone (Table 14).¹⁶ This perhaps reflects negative experiences of working alone during the pandemic which may have impacted attitudes to education, but further investigations are needed to explore this.

Table 14: Aspirations to go to university at age 18 by enjoyment working alone (n=532*)

I enjoy working on my own	When you are 18, would you like to go to uni?			Total
	Yes	No	Don't know	
Disagree/strongly disagree	30 (24.3%)	37 (29.8%)	57 (46.0%)	124 (100%)
Agree/strongly agree	178 (43.6%)	83 (20.3%)	147 (36.0%)	408 (100%)
Total	208 (39.1%)	120 (22.6%)	204 (38.3%)	532 (100%)

* 73 missing values – one school did not complete additional Covid-related questions

¹⁶ Chi squared test to compare two proportions: $\chi^2(1, n=532) = 15.084, p < 0.001$

In terms of the score based on the work of Strand and Winston (2008) measuring attitude to education, those who do not like working alone reported a mean score of 2.82 (SD 0.34) compared to a significantly higher mean score of 3.03 (SD 0.35) for those who do ($p < 0.001$)¹⁷. This difference was also observed in the academic self-concept subscale, representing a more negative attitude to themselves as learners in those who don't like working alone compared to those who do; 2.80 (SD 0.41) versus 3.00 (SD 0.45) respectively ($p < 0.001$)¹⁸. Interestingly, there was no significant difference in mean self-esteem score between these two groups, as measured using the Rosenberg scale, with those who don't like working alone reporting a mean score of 1.68 (SD 0.61) compared to 1.71 (SD 0.59) for those who do like working alone ($t = 0.507$, $df = 532$, $p = 0.612$).

Focusing on the Uni Connect group, the differences in the attitude to education and academic self-concept scores according to whether a student likes working alone appear to be slightly more pronounced. Uni Connect Students who disagreed or strongly disagreed that they like working alone had a mean attitude to education score of 2.85 (SD = 0.26, $n=8$) compared to a mean score of 3.15 (SD = 0.32, $n=35$) for those who agreed/strongly agreed that they like working alone, a difference that is statistically significant ($p = 0.017$)¹⁹. A similar difference was seen between the mean academic self-concept scores, with a mean score of 2.79 (SD = 0.28, $n=8$) for those who don't like working alone compared to a mean score of 3.13 (SD = 0.41, $n=35$) for those who do ($p = 0.035$)²⁰.

Interestingly, there was a borderline significant difference in mean self-esteem score for those who don't like working alone compared to those who do in the Uni Connect students; 1.38 (SD = 0.57, $n=8$) versus 1.85 (SD = 0.62, $n=35$), $p = 0.056$ ²¹.

4.2.1 Learning during Covid-19

When asked how difficult they had found learning since the first Covid-19 lockdown in March 2020, 46.9% of the students (284/605) said they had found it more difficult, although 75 students did not provide a response to this question, so the percentage could in fact be a little higher. When calculated just for those who responded, this percentage becomes 53.6% (284/530).

There is no evidence that those in the Uni Connect group found learning more difficult than those in the control group (Table 15), but gender does appear to have had an impact (Table 16). Of those who responded, 61.2% of females (159/260) found learning more difficult after the lockdown compared to 44.6% of males (111/249)²². This percentage was even higher in the other/prefer not to say group; 66.7% (14/21).

¹⁷ Independent samples t test: $t = 5.731$, $df = 532$, $p < 0.001$

¹⁸ Independent samples t test: $t = 4.522$, $df = 532$, $p < 0.001$

¹⁹ Independent samples t test: $t = 2.498$, $df = 41$, $p = 0.017$

²⁰ Independent samples t test: $t = 2.179$, $df = 41$, $p = 0.035$

²¹ Independent samples t test: $t = 1.967$, $df = 41$, $p = 0.056$

²² Chi squared test to compare two proportions: $\chi^2(1, n=509) = 14.030$, $p < 0.001$

Table 15: Experiences of learning since the first Covid-19 lockdown in March 2020 by group (n = 530*)

Since the first Covid-19 lockdown I have found learning...	Group				Total	
	Uni Connect		Control			
Easier	4	9.3%	54	11.1%	58	10.9%
About the same	10	23.3%	138	28.3%	148	27.9%
More difficult	26	60.5%	258	53.0%	284	53.6%
Not sure	3	7.0%	37	7.6%	40	7.5%
Total	43	100.0%	487	100.0%	530	100.0%

* 75 missing values – one school did not complete additional Covid-related questions

Table 16: Experiences of learning since the first Covid-19 lockdown in March 2020 by gender (n = 530*)

Since the first Covid-19 lockdown I have found learning...	Gender			Total
	Female	Male	Other/ Prefer not to say	
Easier	13 (5.0%)	42 (16.9%)	3 (14.3%)	58 (10.9%)
About the same	70 (26.9%)	75 (30.1%)	3 (14.3%)	148 (27.9%)
More difficult	159 (61.2%)	111 (44.6%)	14 (66.7%)	284 (53.6%)
Not sure	18 (6.9%)	21 (8.4%)	1 (4.8%)	40 (7.5%)
Total	260 (100%)	249 (100%)	21 (100%)	530 (100%)

* 75 missing values – one school did not complete additional Covid-related questions

4.2.2 Plans after Year 11 pre and post Covid-19 lockdown

The students were asked to comment on their plans after leaving Year 11 both before the first Covid-19 lockdown in March 2020 and since. A total of 506 students responded to both of these questions and, of these, 87 (17.2%) had changed their plans. There was no difference in the percentage who changed their plans between the Uni Connect and control groups; 18.4% (7/38) versus 17.1% (80/468) respectively, $p = 0.835^{23}$.

Interestingly, 22.6% (26/115) of those who disagreed or strongly disagreed that they like working alone changed their plans compared to 15.7% (61/389) of those who agreed or strongly agreed that they like working alone. This difference doesn't quite achieve statistical significance ($p = 0.084$)²⁴. The mean attitude to education score was also slightly lower in

²³ Chi squared test to compare two proportions: $\chi^2(1, n=506) = 0.043, p = 0.835$

²⁴ Chi squared test to compare two proportions: $\chi^2(1, n=504) = 2.982, p = 0.084$

those who changed plans compared to those who didn't: 2.90 (SD 0.34) versus 3.00 (SD 0.36) respectively, $p = 0.017^{25}$.

These questions were followed up by asking the students to comment on why their plans had changed. A total of 36 students commented and the full list of comments can be found in Table A8, Appendix A. Overall, plans appear to have changed mainly because students felt more certain about what they wanted to do, although many of the students did not provide a comment. A small number of students talked about their mental health and personal suffering, with two students stating that they would like to pursue careers in counselling to help others. One student mentioned a loss of motivation during lockdown and another student mentioned the realisation following the lockdown that anything can happen and they want to get a good job.

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

- Most students reported having access to the technology they needed to learn during lockdown periods.
- A high percentage of students agreed that they enjoy working alone.
- Those who enjoy working alone appear to be more likely to aspire to go to university at age 18 and have a more positive attitude to education.
- Around half of the respondents found learning more difficult since the Covid-19 pandemic began.
- In terms of gender, both females and those who identify as other or preferred not to say were more likely to report learning as more difficult since the pandemic began than males.
- Just under a fifth of respondents stated that their plans after Year 11 had changed since the pandemic, but this mainly seemed to be because they had become more certain about what they would like to do.

²⁵ Independent samples t test: $t = 2.384$, $df = 504$, $p = 0.017$

5. Appendix A

Table A1: When you are 18, would you like to go to university?

Uni Connect students (n = 30)

Row percentages indicate the percentage responses at follow-up within each baseline response group

Baseline response	Follow-up response			Total
	Yes	No	Don't know	
Yes	10 (90.9%)	1 (9.1%)	0 (0.0%)	11 (100%)
No	2 (33.3%)	2 (33.3%)	2 (33.3%)	6 (100%)
Don't know	2 (15.4%)	2 (15.4%)	9 (69.2%)	13 (100%)
Total	14 (46.7%)	5 (16.7%)	11 (36.7%)	30 (100%)

Table A2: When you are 18, would you like to go to university?

Control students (n = 385*)

Row percentages indicate the percentage responses at follow-up within each baseline response group

Baseline response	Follow-up response			Total
	Yes	No	Don't know	
Yes	120 (70.2%)	8 (4.7%)	43 (25.1%)	171 (100%)
No	3 (3.6%)	60 (72.3%)	20 (24.1%)	83 (100%)
Don't know	30 (22.9%)	23 (17.6%)	78 (59.5%)	131 (100%)
Total	153 (39.7%)	91 (23.6%)	141 (36.6%)	385 (100%)

* 5 missing values

Figure A1: When you are 18, would you like to go to university?

Coding scheme to indicate ‘aspiration towards university’ or ‘aspiration away from university’ according to baseline and follow-up responses

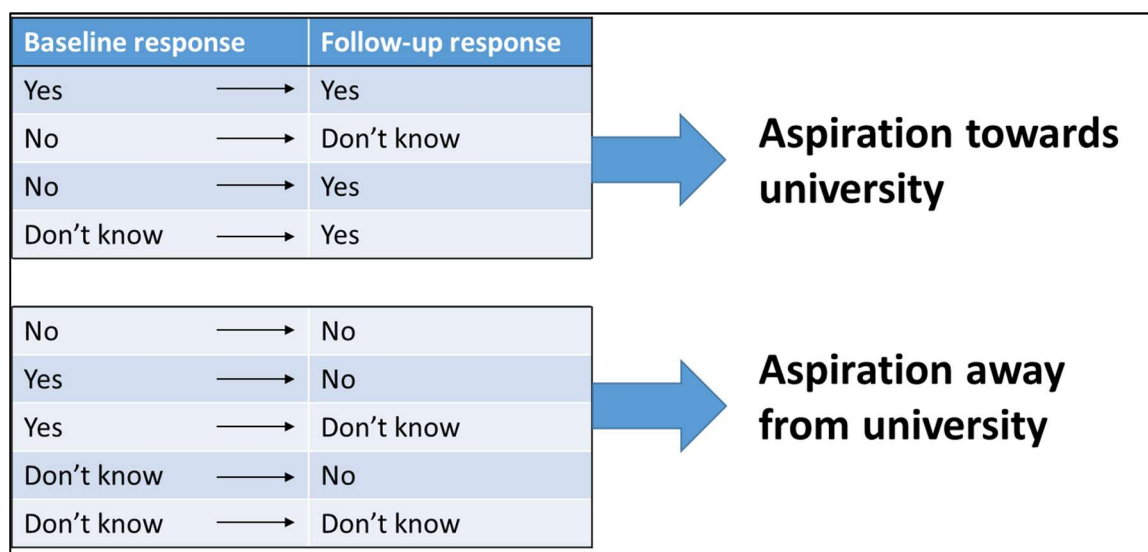


Table A3: Baseline aspiration to go to university at age 18 according to whether a student knows someone who has been to university (n=415)*

Do you know someone who has been to university?	When you are 18, would you like to go to university?			Total
	Yes	No	Don't know	
No	12 (25.0%)	14 (29.2%)	22 (45.8%)	48 (100.0%)
Yes, one or both parents/guardians	69 (66.3%)	10 (9.6%)	25 (24.0%)	104 (100.0%)
Yes, another family member	75 (43.1%)	35 (20.1%)	64 (36.8%)	174 (100.0%)
Yes, non-family member	6 (31.6%)	8 (42.1%)	5 (26.3%)	19 (100.0%)
Not sure	20 (28.6%)	22 (31.4%)	28 (40.0%)	70 (100.0%)
Total	182 (43.9%)	89 (21.4%)	144 (34.7%)	415 (100.0%)

* 5 missing values

Table A4: Do you know someone who has been to university? – Responses by group
Column percentages represent responses within the groups (Uni Connect and control)

Do you know someone who has been to university?	Group*				Total	
	Uni Connect (n=29)		Control (n=388)			
Yes	22	(75.9%)	276	(71.1%)	298	(71.5%)
No	5	(17.2%)	43	(11.1%)	48	(11.5%)
Not sure	2	(6.9%)	69	(17.8%)	71	(17.0%)
Total	29	(100.0%)	388	(100.0%)	417	(100.0%)

* 3 missing values

Table A5: Attitude to education mean scores for the four Strand and Winston (2008) subscales by group (with standard deviations)

Subscale	Uni Connect (n = 30)		Control (n = 390)	
	Baseline	Follow-up	Baseline	Follow-up
Commitment to schooling	3.35 (0.34)	3.33 (0.41)	3.44 (0.41)	3.33 (0.45)
Academic self-concept	2.93 (0.43)	2.99 (0.38)	2.98 (0.45)	2.96 (0.47)
Home-support for learning	3.06 (0.56)	3.00 (0.51)	3.14 (0.50)	3.01 (0.55)
Disaffection / negative peers	2.73 (0.61)	2.73 (0.48)	2.69 (0.49)	2.63 (0.47)

Table A6: Post-hoc paired t tests (after two-way repeated ANOVA) to compare baseline and follow-up mean scores for each Strand and Winston subscale across the full cohort

The cut-point for significance is set to 0.0125 (=0.05/4).

Subscale	Baseline mean	Follow-up mean	t value (df = 419)	p value
Commitment to schooling	3.43	3.33	6.254	< 0.001
Academic self-concept	2.98	2.96	0.711	0.478
Home support for learning	3.13	3.01	5.624	< 0.001
Disaffection / negative peers	2.69	2.63	2.900	0.004

This shows a significant difference between baseline and follow-up mean scores for all but the academic self-concept subscale.

Table A7: Post-hoc tests with Tukey correction (following one-way ANOVA) to investigate differences in mean self-esteem between gender groups at baseline and follow-up (n=420)

Time-point	Comparison	Mean difference	P value
Baseline	Female – Male	-0.3878	< 0.001
	Female – Other/prefer not to say	0.2619	0.249
	Male - Other	0.6497	< 0.001
Follow-up	Female – Male	-0.3046	< 0.001
	Female – Other/prefer not to say	0.4200	0.016
	Male - Other	0.7246	< 0.001

Table A8: Reasons for changing plans after Year 11 since the Covid-19 pandemic (student comments)

1	I became more ambitious
2	Career choice has changed
3	I now want to go and do a Btec since it help me for what I want to do
4	I found other opportunities that I could do after school
5	Yes, my self worth or respect has gained largely across lockdown as well as my work attempt at coping throughout school. Throughout lockdown, I worked majority on myself so I can achieve with confidence and coping ways
6	I have visited colleges in my area and have decided I want to go to one of them
7	Before lockdown I wasn't planning on going to six-form but now I want to it
8	Because I have found my passion
9	Have not had the time or chance to think on it
10	I realised that you can not do an apprenticeship for mental health
11	more educated
12	I was streaming on twitch and wanted to go full-time
13	because I found a passion for sports, especially rugby and want to have a PE leading qualification
14	I would be better to learn new skills as well as going back into college to do what I need to do
15	Before I was unsure whether I should choose yet but I've decided to pick education and work
16	The career that I wanted to do has changed. So there might be a better option than going to college
17	I still want to study and achieve my goals on what I want to do but, I also would like a job to earn at the same time
18	my plans have changed because before lockdown I wasn't really thinking about what I was going to do after year 11, but now I have started to try and figure out what I want to do
19	During lockdown I took into consideration that anything can happen and I would like to go into college to get a good job because before lockdown I didn't know what I wanted to be
20	just a job
21	I had to look more into my next step in education as it was getting closer to leaving school. I knew I didn't want to stay in an academic scene
22	Since lockdown it has been difficult to focus on school because of my mental health. So I feel like I haven't achieved anything and school isn't helpful, but I wanna be a social worker because the mental health has raised up and I don't want young people to suffer on their own
23	during lockdown I had discussed with my Mum that what jobs I could do full-time. I finally decided to go to college and begin a course in law and order to become a Police Officer
24	during lockdown I started watching crime series and has made me want to go into criminology. Or to be a counsellor [sic] if that don't work as I would love to help people as I have suffered with a lot and want to help people who suffer now and still do a little bit. But I would prefer to do crimology.

25	before covid I wanted to go to university, but now I want to go to college and then begin an apprenticeship
26	Before covid I wasn't too sure on what I wanted to do when I leave school
27	I want to go into the army
28	more information available to me
29	I didn't know what I wanted to do but now I do. I would like to be a counciler [sic] to help people go through life and help because I went through stuff and my counciler [sic] helped me a lot
30	I realised that a college or university may not be right for my desired career
31	I learnt that I don't want sixth form because I want college and it is either one or the other. I feel like college gives me more opportunities
32	in another country
33	so many things I now have to consider. Such as a loss of motivation
34	I decided what I wanted to do
35	I really don't know. I want to do an apprentership but I also want to study in university to become a paleontologist
36	I'm not really sure why. I think I just find sixth-form more useful now before the lockdown

6. Appendix B

1. Evaluation Information sheet

***** IMPORTANT: PLEASE READ *****

STUDENT ETHICAL CONSENT INFORMATION SHEET

Project title: ThinkHigher Uni Connect

Covid-19 update

You may remember that we asked you to complete a questionnaire in October or November 2019 and you might even remember reading an information sheet that looked just like this one. Since then, the Covid-19 pandemic has turned the world upside down and, in the case of this project, prevented us from asking you to complete a second questionnaire in June 2020, as we originally intended. As such, so that we can continue our important work, and to try to understand a little bit about how Covid-19 might have impacted how you feel about school, we are going to ask you to complete questionnaires two more times and would like to ask for **your consent** to use your data.

Please read this information sheet carefully and pay particular attention to the updated section (clearly marked) on the next page.

What are we doing?

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

Why is it important?

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.

Why are we informing you about this research project?

This work will help us to improve the services we offer and will also help your school teachers 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 pupils.

Data collection and storage (***)UPDATED DUE TO COVID-19(***)

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 school year (between May and July 2021)

We give assurance that:

- We will only work with the data we collected from you a year ago (in October or November 2019) if you gave your consent for us to do that when you completed that questionnaire. If you didn't complete a questionnaire a year ago, that's no problem.
- The data collected and used in this research project will in no way influence your schooling.
- ThinkHigher will not be able to identify individual pupils. 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 (e.g. asking a teacher) 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.

Who should I contact if I wish to make a complaint?

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 your teacher 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 and yourself.

Please answer the questions as honestly and accurately as you can. We are interested to know what you 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. Place a tick in the boxes if you agree with them. In order for us to use your questionnaire responses, you must **TICK ALL 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

← **If you're not sure how to write your signature, just write your initials**

ThinkHigher Uni Connect Questionnaire

Please fill in the following information:

Year group: _____

Class: _____

I am (please tick):

Female

Male

Other

Prefer not to say

Continued over the page.../

Part 1: Your aspirations for the future

- Q1. When you finish year 11 what will you do next?
Please tick just **one** box as your answer to Question 1

Stay in school or go to a sixth-form college	<input type="checkbox"/>
Go to a further education college	<input type="checkbox"/>
Get a job and study part-time	<input type="checkbox"/>
Begin an apprenticeship	<input type="checkbox"/>
Do some other type of training	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>
I don't know	<input type="checkbox"/>

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

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

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>
Don't know	<input type="checkbox"/>

- Q3. How important do you think it is for you to do well in your GCSE exams?

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

Very important	<input type="checkbox"/>
Important	<input type="checkbox"/>
Not very important	<input type="checkbox"/>
Not at all important	<input type="checkbox"/>

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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 | <input type="checkbox"/> |
| Yes – one or both of my parents or guardians | <input type="checkbox"/> |
| Yes – a brother or sister | <input type="checkbox"/> |
| Yes – another family member | <input type="checkbox"/> |
| Yes – a friend | <input type="checkbox"/> |
| I'm not sure | <input type="checkbox"/> |
| Other (please specify) | <input type="checkbox"/> |

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Part 2: Your views about school

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

PLEASE ANSWER EACH OF 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. If I work, I can succeed in life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I know how to be a good learner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Family members/carers usually come to open evenings/reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly agree	Agree	Disagree	Strongly disagree
5. My friends laugh at those who do well at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I have a quiet place in which to do schoolwork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I often get bored in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. My friends distract me from paying attention at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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	Strongly agree	Agree	Disagree	Strongly disagree
13. I feel good about myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I am good at most subjects at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Finishing school is important to achieve my career choice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I am good at solving problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly agree	Agree	Disagree	Strongly disagree
17. If I get stuck, I can usually work things out	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I work hard at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Family members/carers help me with homework	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Family members/carers often ask me how I'm doing at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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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 EACH OF 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. At times I think I am no good at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I feel that I have a number of good qualities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I am able to do things as well as most other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I feel I do not have much to be proud of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I certainly feel useless at times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I feel that I'm a person of worth, at least on an equal plane with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I wish I could have more respect for myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. All in all, I am inclined to feel that I am a failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I take a positive attitude toward myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 and yourself.

Please answer the questions as honestly and accurately as you can. We are interested to know what you 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. Place a tick in the boxes if you agree with them. In order for us to use your questionnaire responses, you must TICK ALL 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

← **If you're not sure how to write your signature, just write your initials**

ThinkHigher Uni Connect Questionnaire

Please fill in the following information:

Year group: _____

Class: _____

I am (please tick):

Female

Male

Other

Prefer not to say

Continued over the page.../

Part 1: Your aspirations for the future

- Q1. At the moment, young people can leave education or training at 18. When you are 18, would you like to go to university?

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

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>
Don't know	<input type="checkbox"/>

- Q2. How important do you think it is for you to do well in your GCSE exams?

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

Very important	<input type="checkbox"/>
Important	<input type="checkbox"/>
Not very important	<input type="checkbox"/>
Not at all important	<input type="checkbox"/>

- Q3. Do you know anyone else who is at or has been to university?

Please tick **all** that apply as your answer to Question 3

No	<input type="checkbox"/>
Yes – one or both of my parents or guardians	<input type="checkbox"/>
Yes – a brother or sister	<input type="checkbox"/>
Yes – another family member	<input type="checkbox"/>
Yes – a friend	<input type="checkbox"/>
I'm not sure	<input type="checkbox"/>
Other (please specify)	<input type="checkbox"/>

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Part 2: Your views about school

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

PLEASE ANSWER EACH OF 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. If I work, I can succeed in life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. I know how to be a good learner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Family members/carers usually come to open evenings/reviews	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly agree	Agree	Disagree	Strongly disagree
25. My friends laugh at those who do well at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. I have a quiet place in which to do schoolwork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. I often get bored in class	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. My friends distract me from paying attention at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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Continued...

	Strongly agree	Agree	Disagree	Strongly disagree
33. I feel good about myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34. I am good at most subjects at school	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Finishing school is important to achieve my career choice.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. I am good at solving problems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Continued over the page.../

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 EACH OF 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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. At times I think I am no good at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I feel that I have a number of good qualities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I am able to do things as well as most other people	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I feel I do not have much to be proud of	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I certainly feel useless at times	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I feel that I'm a person of worth, at least on an equal plane with others	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I wish I could have more respect for myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. All in all, I am inclined to feel that I am a failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I take a positive attitude toward myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 4: Reflections on the past year

- Q1. **Since the first COVID-19 lockdown** in March 2020, have you attended school 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 school as usual during lockdown periods | <input type="checkbox"/> |
| Yes, sometimes | <input type="checkbox"/> |
| No | <input type="checkbox"/> |
| Not sure | <input type="checkbox"/> |

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

- | | |
|-------------------------------------|--------------------------|
| Easier than before lockdown | <input type="checkbox"/> |
| About the same as before lockdown | <input type="checkbox"/> |
| More difficult than before lockdown | <input type="checkbox"/> |
| Not sure | <input type="checkbox"/> |

- Q3. **Before the COVID-19 pandemic**, my plan after finishing year 11 **was** to (tick **one** of the following):

- | | |
|--|--------------------------|
| Stay in school or go to a sixth-form college | <input type="checkbox"/> |
| Go to a further education college | <input type="checkbox"/> |
| Get a job and study part-time | <input type="checkbox"/> |
| Begin an apprenticeship | <input type="checkbox"/> |
| Do some other type of training | <input type="checkbox"/> |
| Other (please specify) | <input type="checkbox"/> |
| I don't know | <input type="checkbox"/> |

Q4. **Since the COVID-19 pandemic**, my plan after finishing year 11 **is now** to (tick **one** of the following):

- Stay in school or go to a sixth-form college
- Go to a further education college
- Get a job and study part-time
- Begin an apprenticeship
- Do some other type of training
- Other (please specify)
- I don't know

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

Thank you for completing this questionnaire!

7. References

Strand, S and Winston, J (2008). *Educational aspirations in inner city schools*. Educational Studies, 34(4), pp. 249-267.

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