

**Report:**

## Summer schools in the time of COVID-19

Interim findings on the impact on widening participation

July 2022

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## 1. EXECUTIVE SUMMARY

Summer schools are a widespread outreach intervention aimed to widen participation in higher education (HE) for disadvantaged and underrepresented student groups. Previous evidence indicates an association between summer school participation and positive attitudes and behaviours related to HE; however, there is a lack of evidence demonstrating the causal impact of summer schools.

To address this gap, the Centre for Transforming Access and Student Outcomes in HE (TASO) conducted a Randomised Controlled Trial (RCT) of HE summer schools, in collaboration with eight universities and the Behavioural Insights Team (BIT). Applicants to summer schools were randomly allocated either to receive a place at the summer school (the treatment group) or not to receive a place (the control group). By comparing outcomes across the groups, we can generate causal evidence on the impact of summer schools.

The summer schools included in the trial were targeted either at pre-16 or post-16 aged students. Due to the COVID-19 pandemic, the summer schools were delivered online rather than face-to-face, a mode of delivery that was not the norm.

The focus of this report will be on the interim survey findings, with behavioural findings, including attainment and enrolment in HE, to be reported in 2024.

### Key findings:

- It is highly probable that those who apply to a university summer school are already interested in progressing to HE. Of the students that responded to the pre-summer school survey embedded in the application form, 94% indicated that they were either 'likely' or 'extremely likely' to apply to HE in the future.
- Of the 802 students randomised as part of the trial, 43% ( $n = 342$ ) responded to the post-summer school survey (Survey 1), which assessed:
  - Likelihood of applying to HE
  - Self-efficacy with regard to applying to HE and post-entry success
  - Compatibility of HE with social identity
  - Perception of practical barriers to HE, including knowledge of HE and financial support.
- An additional survey was administered to the post-16 cohort only, in line with the January UCAS deadline, asking students to report whether they had applied to HE (Survey 2). Of the total trial participants, 46% ( $n = 295$ ) responded to this survey. Although this is likely to represent a highly motivated sample, self-reported rate of application to HE was very high in both the treatment and control groups (94% and 91% respectively).
- The survey findings indicate that the summer schools may have a small positive effect on self-reported applications to HE as well as the hypothesised mediating mechanisms (self-efficacy relating to HE, compatibility of HE with social identity, and perception of practical barriers to HE). However, none of these effects were significant at the 95% confidence level.
- The evidence most strongly supports the proposal that the summer schools had a positive effect on participants' self-reported self-efficacy relating to HE, defined as their confidence in their ability to apply to, and succeed at, university. This finding was significant at the 90% confidence level.

## 2. INTRODUCTION

The demand for places at UK universities is continuing to increase rapidly. In 2021, nearly 750,000 applications to HE were made in the UK, an increase of 5% from the previous year. Of these, 562,000 were accepted and placed for entry into HE (UCAS, 2022). Despite this increase in the number of young people applying to HE, a disparity remains between socio-economically disadvantaged students and their more affluent peers; nationally, progression to HE is lower for disadvantaged students than for non-disadvantaged students across all qualification types. While a record 20.7% of UK 18-year-olds from the most disadvantaged backgrounds (as measured by POLAR4 quintile 1) secured an HE place in 2021, no progress has been made in closing the gap between these students and those from the most advantaged areas, where 48.4% were accepted (UCAS, 2022). Some of the key barriers to progression reported by Key Stage 3 and 4 learners following the COVID-19 pandemic are lower confidence in HE as an option, lower levels of HE knowledge – influencing students' ability to make informed choices, and less awareness of HE and future opportunities (Huband-Thompson et al., 2021).

Summer schools are typically an on-campus widening participation (WP) intervention comprising a range of activities designed to give students an experience of HE, including a residential stay, workshops, taster sessions and social activities. The previous evidence synthesis commissioned by TASO (Robinson & Salvestrini, 2020) demonstrates positive correlations between summer school participation and confidence and attitudes towards HE, however, mixed effects on applications and entry to HE. For instance, a study evaluating Aimhigher summer schools found a positive association with the intervention and increased progression to HE, especially for disadvantaged students, yet an evaluation of another university summer school found only small and non-significant effects on application rates. The review also notes the limited quality of the current evidence, with most existing studies using no comparison group. This type of evidence can only tell us that there is a positive association between summer schools and student outcomes; it cannot tell us definitively that the intervention has an impact (*causal evidence*). This is because students who participate in summer schools may already be more likely to enrol in HE compared to non-participants, even in the absence of the summer school. We, therefore, risk overestimating the efficacy of summer schools.

More recently, TASO (2021) collaborated with the Higher Education Access Tracker (HEAT) and found that participation in summer schools is associated with higher KS4 attainment and higher HE progression. Burgess, Horton & Moores (2021) have also found summer schools to be one of the WP activities most strongly linked to UCAS application success (defined as acceptance onto an HE course). While the evidence base is growing, there is a clear need for *causal* evidence that quantifies the impact of summer schools on WP, especially given that these interventions are both time- and resource-intensive.

To fill this gap, TASO is conducting a RCT of HE summer schools. By comparing outcomes for a randomly assigned treatment group that received the intervention, and a control group that did not, this method allows us to assess the extent to which summer school interventions directly impact student outcomes. The project is a collaboration between:

- TASO – Overall Project Lead, including responsibility for the design and delivery of the implementation and process evaluation (IPE), and conducting the alternative evaluation analysis.
- BIT – independent evaluator on the impact evaluation (RCT).
- Eight universities running summer schools:
  - The University of Gloucestershire
  - The University of Kent
  - The University of Leeds
  - Nottingham Trent University
  - The University of Suffolk
  - The University of Surrey
  - University College London
  - The University of East Anglia

A research assistant/associate (RA), funded by TASO, was recruited by the majority of universities to support them with their evaluation responsibilities. In other cases, existing staff in the evaluation/WP teams supported the project. Table 1 summarises the key project personnel for each organisation.

**Table 1: Project personnel**

<b>Organisation</b>	<b>Name</b>	<b>Role and responsibilities</b>
<b>BIT</b>	Patrick Taylor	Evaluation Manager
	Pujen Shrestha	Data Analyst
	Dr Giulia Tagliaferri	Evaluation Supervisor
	Dr Alex Sutherland	Evaluation QA
	James Lawrence	Evaluation QA
	Ruth Persian	Evaluation QA
<b>TASO</b>	Dr Helen Lawson	Research Programme Manager. IPE Lead and responsible for the day-to-day management of the study.
	Sarah Chappell	Senior Research Officer. RCT Lead and responsible for supporting the team in the day-to-day management of the study.
	Dr Eliza Kozman	Deputy Director (Research). Responsible for overseeing the implementation of the study.
	Jessica Hunt	Maternity cover for Deputy Director (Research).
<b>University of Surrey</b>	Katherine Sela	Project Lead at the University of Surrey. Responsible for implementing randomisation and data collection there.
	Dr Karla Lopez-Murillo	RA supporting data collection and analysis.
<b>University College London (UCL)</b>	Shireen Quraishi	Project Lead at UCL. Responsible for implementing randomisation and data collection there.
	Emily Burchell	RA supporting data collection and analysis.
	Vijdan Zorba	Data and Impact Manager supporting on the project.
<b>University of Leeds</b>	Liz Hurley	Project Lead at the University of Leeds. Responsible for implementing randomisation and data collection there.
	Rebecca Talbot	RA supporting data collection and analysis.
<b>University of Suffolk</b>	Dr Marianna Stella	Project Lead at the University of Suffolk. Responsible for implementing randomisation and data collection there.
	Owen Evans	Outreach Officer supporting data collection and analysis
<b>University of Gloucestershire</b>	Liz Gray	Project Lead at the University of Gloucestershire. Responsible for implementing randomisation and data collection there.
	Hannah Kent	RA supporting data collection and analysis.
<b>University of Kent</b>	Marta Almeida	Project Lead at the University of Kent. Responsible for implementing randomisation and data collection there.
	Amy Burt	Co-project Lead.
<b>Nottingham Trent University (NTU)</b>	Laura Hope	Project Lead at NTU. Responsible for implementing randomisation and data collection there.
	Peter Cassidy	Co-project Lead.
<b>University of East Anglia (UEA)</b>	Rosie Hannant	Project Lead at UEA. Responsible for implementing randomisation and data collection there.
	Ed Penn	RA supporting data collection and analysis.

Of the eight universities involved, four deliver summer schools that target students under the age of 16 (Year 9 or 10), while a further four run summer schools that target students over the age of 16 (Year 12 or first year of post-16 education). To participate in the RCT, universities were required to receive a higher number of summer school applications than places available, allowing places to be decided by randomisation.

Those randomly allocated to the treatment group received a summer school place, and those randomly allocated to the control group did not. Both groups of students were asked to complete surveys before and after the summer school to capture their attitudes and confidence towards HE.

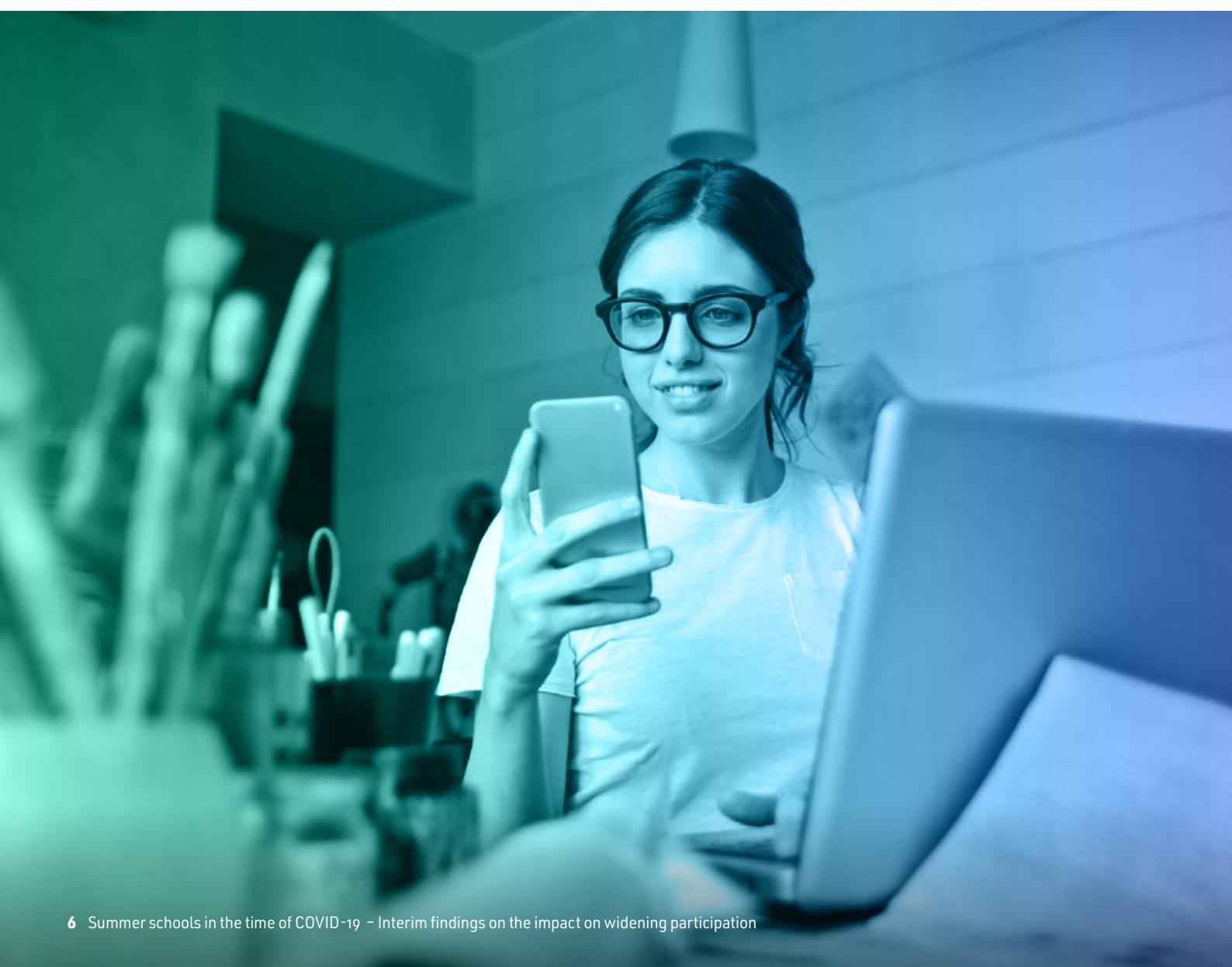
Likely due to the impact of COVID-19, four universities and one specific summer school at a further university received insufficient applications to take part in the RCT, since all applicants received a summer school place, leaving no control group for comparison.

These universities instead participated in alternative evaluation methods, providing correlational evidence to support the findings from the RCT.

This report focuses on the interim outcomes from administered surveys, alongside findings from the implementation and process evaluation, which involved qualitative interviews with students. Data on enrolment in HE (our primary outcome) does not become available until 2023/2024 and will be included in our final report alongside attainment. This interim report provides:

- An outline of the methodology including the impact evaluation, implementation and process evaluation, and alternative evaluation for those not participating in the RCT
- An outline of the key findings from the interim survey data and implementation and process evaluation
- A discussion of the findings and directions for future research.

For more details on the RCT methodology, analytical approach and findings, please see the accompanying [analysis report](#).



### 3. METHODOLOGY

#### a) Impact evaluation – RCT

##### Intervention

This study evaluates a collection of summer schools, delivered by participating universities for students in either pre-16 or post-16 education. Each summer school has its own specific characteristics (see Appendix I for full intervention descriptions), but all share the same broad aims and involve similar activities related to preparation for HE. All summer schools took place in the summer of 2021.

One university planned to deliver their summer schools in person at two partner schools, but these were cancelled after randomisation due to COVID-19 outbreaks. All other university summer schools took place online due to the unpredictable context of the pandemic. The normal delivery mode is to conduct in-person summer schools and therefore the online interventions required new design work and differ substantially from face-to-face delivery.

##### Methodology

At the application stage, students were informed that the university hosting the summer school was participating in a research study evaluating summer schools and it was explained what this would entail. Consent to participate in the research was also captured at this stage. Staff at participating universities filtered applicants into a list that only included eligible candidates, namely, those that met WP criteria. Eligible applicants to each summer school were then randomly assigned to either the treatment or control group. Those in the treatment group received a place at the summer school and those in the control group did not. A full breakdown of demographic data, eligibility criteria and the randomisation procedure are included in the [analysis report](#).

##### Counterfactual

To establish the impact of summer schools on student behaviour, the analysis compares average outcomes across the treatment and control groups. The counterfactual in impact evaluation is

commonly defined as 'business as usual'. Defining the counterfactual for the control arm of an impact evaluation is critical to the ability to draw causal conclusions. In this case, business as usual means that students continue as they were and do not receive the same treatment as those assigned to the intervention group. However, it is recognised that it is not possible to isolate the control group from activities that occur outside the treatment intervention (for example, engagement with other outreach activities). The only variable that the trial controls for is attendance at the summer schools involved in the trial.

Given that the trial participants actively applied to a summer school, it is reasonable to assume that those assigned to the control group will apply to other summer schools and/or participate in other outreach activities. This may also be a form of compensatory rivalry, in which those not receiving the intervention actively decide to seek the benefit of the intervention on their own, in this case, by applying to alternative summer schools. To minimise this threat to the internal validity of the trial, all students were asked whether they had participated in additional outreach activities, and we will also capture this via HEAT as part of the final report. Out of 342 respondents, only one stated that they had not participated in any additional outreach activities. On this basis, we can assume that students in both the treatment and control groups represent a relatively motivated and engaged proportion of WP students.

##### Sample

Of the eight universities involved in the trial, four had oversubscription of summer school applications and therefore participated in the RCT. Two of these universities ran multiple subject-specific summer schools.

The size of the treatment and control groups was determined by the number of places available in each summer school, after removing students guaranteed a place (as decided by the university) and those that did not consent to being involved in the research, although these students remained part of the randomisation to ensure that opting out did not inhibit access to places. Table 2 shows the final numbers in the treatment and control groups for each university:

**Table 2: Total number of participants in RCT**

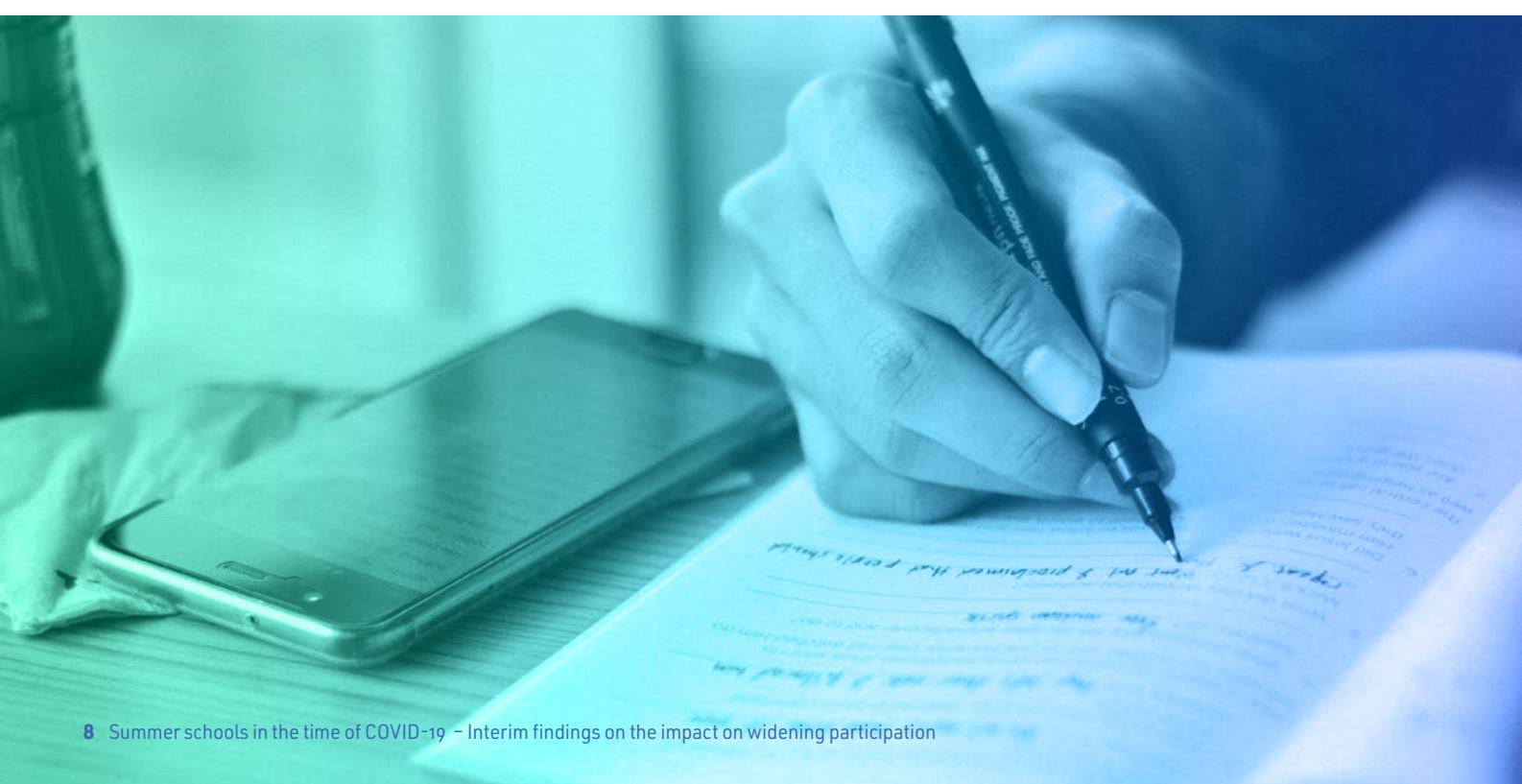
Summer school	Target group	Treatment no.	Control no.
<b>University A (Languages)</b>	Post-16	53	20
<b>University A (Biosciences)</b>	Post-16	58	71
<b>University A (Maths)</b>	Post-16	28	30
<b>University A (Psychology)</b>	Post-16	35	34
<b>University A (Social Sciences)</b>	Post-16	26	7
<b>University D (Architecture)</b>	Post-16	20	22
<b>University D (Health and Well-being Data Science)</b>	Post-16	17	7
<b>University D (Biosciences)</b>	Post-16	19	36
<b>University D (Chemical Engineering)</b>	Post-16	13	6
<b>University D (Astrophysics)</b>	Post-16	19	6
<b>University D (History)</b>	Post-16	15	12
<b>University D (Natural Sciences)</b>	Post-16	20	17
<b>University D (Economics)</b>	Post-16	18	29
<b>University F</b>	Pre-16	46	27
<b>University G<sup>1</sup></b>	Pre-16	39	52
<b>Total</b>		<b>426</b>	<b>376</b>

## Outcome measures

The primary outcome measure will be whether the individual enters HE in the academic year 2022/23, with the secondary outcome measure the provider at which they study (i.e., whether it is the host university or not). We will not be able to obtain this data until 2023/2024; therefore, this report covers the exploratory outcomes obtained by survey measures, in addition to qualitative

findings. The survey questions are included in Table 3 and were devised by TASO by adapting existing scales (see analysis report for further details). Survey 1 was administered to all students both before and after summer school delivery, and Survey 2 was administered in January 2022 to post-16 students only, to align with the main UCAS HE application deadline.

<sup>1</sup> This summer school was cancelled post-randomisation of applications due to a COVID-19 outbreak in participating partner schools.



**Table 3: Outcome measures**

Outcome measure	Data to be collected	Aggregation of items	Point of collection	Pre- or post-16
<b>EXPLORATORY 1 (PROXIMAL): Application to university</b>	Survey 2: Have you applied to university? Binary: yes/no	NA	After endpoint (January 2022)	Post-16 only
<b>EXPLORATORY 2 (PROXIMAL): Likelihood of going to university</b>	Survey 1: How likely are you to apply to university? Likert: 7-point 'Extremely likely to extremely unlikely'	NA	Baseline After endpoint (Aug and Sept 2021)	Both
<b>EXPLORATORY 3 (PROXIMAL): Likelihood of progressing to academic study post-16</b>	Survey 1: How likely is it that you will study at school or a sixth form after you've finished Year 11? Likert: 5-point 'Extremely likely to extremely unlikely'	NA	Baseline After endpoint (Aug and Sept 2021)	Pre-16
<b>EXPLORATORY 4 (MEDIATOR): Self-efficacy relating to HE</b>	Survey 1: 1. How confident are you that you could make a successful application to university? 2. How confident are you that you could succeed at university? Likert: 5-point 'Extremely confident' to 'Not confident at all'	Mean average	Baseline After endpoint (Aug and Sept 2021)	Both
<b>EXPLORATORY 5 (MEDIATOR): Compatibility of HE with social identity</b>	Survey 1: How much do you agree with the following: 'University is for people like me'? Likert scale: 5-point 'strongly agree to strongly disagree'	NA	Baseline After endpoint (Aug and Sept 2021)	Both
<b>EXPLORATORY 6 (MEDIATOR): Perception of practical barriers to HE</b>	Survey 1: 1. How confident are you that you could afford to go to university? 2. How confident are you that you know how to apply to university? Likert: 5-point 'Extremely confident' to 'Not confident at all'	Mean average	Baseline After endpoint (Aug and Sept 2021)	Both

## b) Alternative evaluation – pre-test post-test analysis

### Background

Four universities and one specific summer school at a further university received insufficient applicants to be involved in the RCT, and all applicants for these summer schools subsequently received a place. These students responded to the same survey items (Survey 1) before and after attending a summer school. This enabled the universities to conduct pre-test (pre-summer school) post-test (post-summer school) analysis to assess changes in students' attitudes towards HE during the time that they participated in the summer school. This analysis will establish whether there is a statistically significant difference between the mean scores for pre-summer school responses and post-summer school responses.

It is worth noting that this analysis will only tell us whether there is a correlation between attendance at a summer school and positive attitudes towards HE; without a control group (the counterfactual), causal inferences cannot be made. The methodology also cannot eliminate the risk that survey responses are positively biased due to social desirability.

### Sample

As with the RCT, the participating universities filtered applicants into a list that only included those who met the eligibility criteria. The total sample size for this sub-evaluation is shown in Table 4, factoring in only those students who completed both the pre- and post-summer school survey. One university had a very small number of attendees at their summer school, none of whom fully completed the pre- and post-summer school survey, and were therefore removed from the sample.

**Table 4: Sample size by university and combined**

<b>University</b>	<b>No. of students</b>
University E	22
University H	7
<b>Pre-16 total</b>	<b>29</b>
University A (non subject-specific) <sup>2</sup>	20
University C	93
<b>Post-16 total</b>	<b>113</b>
<b>Combined</b>	<b>142</b>

### c) Implementation and Process Evaluation (IPE)

The findings from the IPE help to explain the impact evaluation outcomes. While the impact evaluation aims to establish whether the intervention does or does not work, the IPE seeks to demonstrate how and why this is the case. The purpose of the IPE, therefore, is to investigate whether the summer schools were implemented as planned, whether intervention outcomes were achieved, and whether the assumptions on how change will happen are correct.

The summer school intervention is non-prescriptive (i.e., there is no model for how the intervention should be delivered to which all universities should adhere, and no guidelines to be followed on, for example, content, coverage, duration or dosage). It was, therefore, important to agree as a team on the core elements of the project to which all interventions would adhere and against which intervention implementation and process would be evaluated.

A workshop was held with all project partners at which a shared Theory of Change was developed (see Appendix II) and project goals agreed. A consensus was reached on:

- The problem the intervention seeks to address
- The aims of the intervention
- Intervention outcomes
- Intervention impact
- Rationale and assumptions

The specific design and delivery of each summer school varied between universities although there were some common elements, such as the involvement of student ambassadors in summer school delivery.

To give further depth to the evaluation, each university defined intervention activities, resourcing and dosage. The majority of partners defined summer school dosage as 60%; that is, students were required to attend 60% of the summer school sessions to be classed as having received the intervention. In addition, some summer schools included sessions classed as compulsory for all students that carried extra weighting. Students who did not attend these sessions were deemed to have received a lower dose than those who did attend.

### Data collection

A research community of practice was established and the research team, including TASO and representatives from each university, met bi-weekly to collaboratively develop the semi-structured focus group schedules (see Appendix III). In order to collect consistent data, all universities asked a series of core questions and were then able to ask additional questions relevant to their local context. A workspace was created in Microsoft Teams which facilitated communication within the research group, enabling members to share ideas and ask questions while also acting as a repository for evaluation materials.

Focus groups and interviews were conducted online by RAs or institution-based staff responsible for monitoring and evaluation. Participants were encouraged to have their cameras on and unmute themselves; however, some students preferred to comment via the chat function. The focus groups/interviews were recorded and transcribed via a third-party service.

<sup>2</sup> All other subject summer schools for this university were oversubscribed and therefore participated in the RCT.

## Data analysis

Data were encoded and analysed thematically at the local level. An inductive analysis approach was adopted, allowing for themes to emerge from the data. Four steps were used to create a framework matrix for the data:

1. Transcription and familiarisation with the data
2. Coding
3. Developing and applying a working analytical framework matrix
4. Interpreting the data

A member of the research team familiarised themselves with each transcript, checking for errors by listening to the audio recording and reading the transcripts simultaneously. Each transcript was supplemented with notes made by the research team member during and after the focus group sessions, for example, where views were given after the audio recording had stopped. Familiarisation with the data set was essential and allowed the researcher to note initial thoughts about themes and look for commonalities or contrasting views within the language of the data.

Data were coded at each university by the people conducting the research. Any thoughts generated were noted down, including questions arising as a

result of reading the text, and potential patterns in the data. Through this process, preliminary themes and sub-themes were identified. The next step of analysis required the generation of a coding framework, coupled with a discussion about which themes were conceptually related and should, therefore, be grouped together. During this phase, many possible explanations of what was happening within the data were put forward. Further discussion between the project research team created an iterative process of refining the existing data and agreeing on whether the themes identified were consistent with the research question. The finalised themes were agreed on by reviewing the framework and making connections within and between participants and categories.

## Sample

The universities experienced some challenges with recruiting students to focus groups and interviews, particularly the control group. Some universities offered recompense to try to boost engagement, with varying degrees of success. The very low take-up rate is likely – in part – to be due to timing. Most universities were trying to arrange interviews just as the restrictions that had been in place due to the COVID-19 pandemic were lifted. Table 5 details the sample size for each university.

**Table 5: Sample of participants for the IPE for each university**

University	Pre- or Post-16	No. of participants	
		Treatment	Control
University A	Post-16	11	10
University B	Post-16	14	0
University C	Post-16	8	0
University D	Post-16	4	0
University E	Pre-16	16	2
University F	Pre-16	29	0
University G <sup>3</sup>	Pre-16	0	0
University H	Pre-16	9	0
<b>Total IPE student sample</b>		<b>91</b>	<b>12</b>

At two universities, WP staff, student ambassadors and academic staff were invited to take part in a focus group to provide a different perspective on student engagement with the summer school. The external speaker, part of one of the summer schools, was also

invited to give feedback, as were parents of summer school attendees. For those unable to attend a focus group or interview, feedback could be given via free text responses to a survey.

<sup>3</sup> Data collection was cancelled due to the summer schools not going ahead.

## 4. FINDINGS

### a) Impact evaluation – RCT

Due to attrition, the analysis of survey outcome data is based on a smaller sample than those randomised, as detailed in Table 6. Only a small proportion of the total sample at least partially completed Survey

1 and Survey 2 (43% and 46% respectively), and the findings are, therefore, likely to reflect a highly motivated sample of students.

**Table 6: Summary of survey sample.**

		Treatment	Control	Total
Number of Students	<b>Randomised for Survey 1</b>	426	376	802
	<b>Analysed for outcome Survey 1 (number and % of RCT sample)</b>	214 (50%)	128 (34%)	342 (43%)
	<b>Randomised for Survey 2 (post-16 only)</b>	341	297	638
	<b>Analysed for outcome Survey 2 (number and % of RCT sample)</b>	176 (52%)	119 (40%)	295 (46%)

### Descriptive statistics:

Table 7 presents the mean and standard deviation for each outcome, broken down by allocated group. In general, it appears that the treatment and control groups performed similarly, although the treatment group responded more positively across four outcomes and the control group responded more positively on one outcome. Across both groups, students were generally more likely to respond positively than negatively to the survey questions. It is probable that students who apply

to a university summer school are more likely to have a favourable attitude towards HE, a notion supported by the baseline (pre-summer school) survey results in which 97% of post-16 applicants report that they are either 'likely' or 'extremely likely' to apply to HE in the future. Furthermore, the self-reported rate of application to HE among the post-16 sample by January 2022 was very high in both the treatment and control groups (94% and 91% respectively).

**Table 7: Mean outcome scores by group**

Outcome	Treatment	Control
	Mean (SD)	Mean (SD)
<b>Likelihood of going to HE (7-point Likert scale) (n = 342)</b>	6.60 (0.99)	6.60 (0.98)
<b>Likelihood of progressing to academic study post-16 (5-point Likert scale) (n = 49)</b>	4.71 (0.52)	4.73 (0.46)
<b>Self-efficacy relating to HE (5-point Likert scale) (n = 331)</b>	4.06 (0.66)	3.91 (0.79)
<b>Compatibility of HE with social identity (5-point Likert scale) (n = 337)</b>	3.97 (0.95)	3.83 (0.97)
<b>Perception of practical barriers to HE (5-point Likert scale) (n = 330)</b>	3.38 (0.95)	3.26 (0.96)
<b>Applied to HE (binary yes/no) (n = 295)</b>	0.94 (0.23)	0.91 (0.29)

Notes: Sample of students (n) per outcome included in brackets above.

## Analysis of outcomes:

Analysis was conducted to estimate the effects of the summer school on each survey outcome. For the full analytical strategy and findings, see the analysis report. Table 8 presents the estimated average effect for each outcome. The likelihood of progressing to HE was measured using a 7-point Likert scale, so the estimated effect can take values between -6 and 6. All other Survey 1 outcomes were measured using a 5-point Likert scale, so those estimated effects can take values between -4 and 4. Whether or not a student reported applying to university by January 2022 (the Survey 2 question) was measured using a binary 'yes/no' question (coded as 1 for 'yes' and 0 for 'no'), so the estimated effect can take values between -1 and 1.

The estimated effects in Table 8 are based on post-summer school survey responses, but the effects were also re-estimated to include the baseline

(pre-summer school) survey responses as these were likely to be predictive of the post-summer school outcomes. However, when including baseline survey responses, the estimated effects were similar for all outcomes (see the analysis report for further information).

Four of the estimated effects are directionally positive and two are directionally negative (although very close to zero). The results provide early evidence that the summer schools may have had an average positive effect on self-reported applications to HE as well as the hypothesised mediating mechanisms (self-efficacy relating to HE, compatibility of HE with social identity, and perception of practical barriers to HE). These effects are not significant at the 5% level and are small overall. The estimated (positive) effect on self-efficacy relating to HE is significant at the 10% level ( $p = 0.07$ ).

**Table 8: Estimated effects for the outcomes of interest**

Outcome	Estimated effect (score on scale)	Standard error	Estimated effect (Cohen's $d$ )
Likelihood of going to HE (7-point Likert scale) (n = 342)	-0.01	0.11	-0.01
Likelihood of progressing to academic study post-16 (5-point Likert scale) (n = 49)	-0.12	0.17	-0.06
Self-efficacy relating to HE (5-point Likert scale) (n = 331)	0.14+	0.08	0.21
Compatibility of HE with social identity (5-point Likert scale) (n = 337)	0.15	0.11	0.14
Perception of practical barriers to HE (5-point Likert scale) (n = 330)	0.10	0.10	0.12
Applied to HE (binary yes/no) (n = 295)	0.04	0.03	0.14

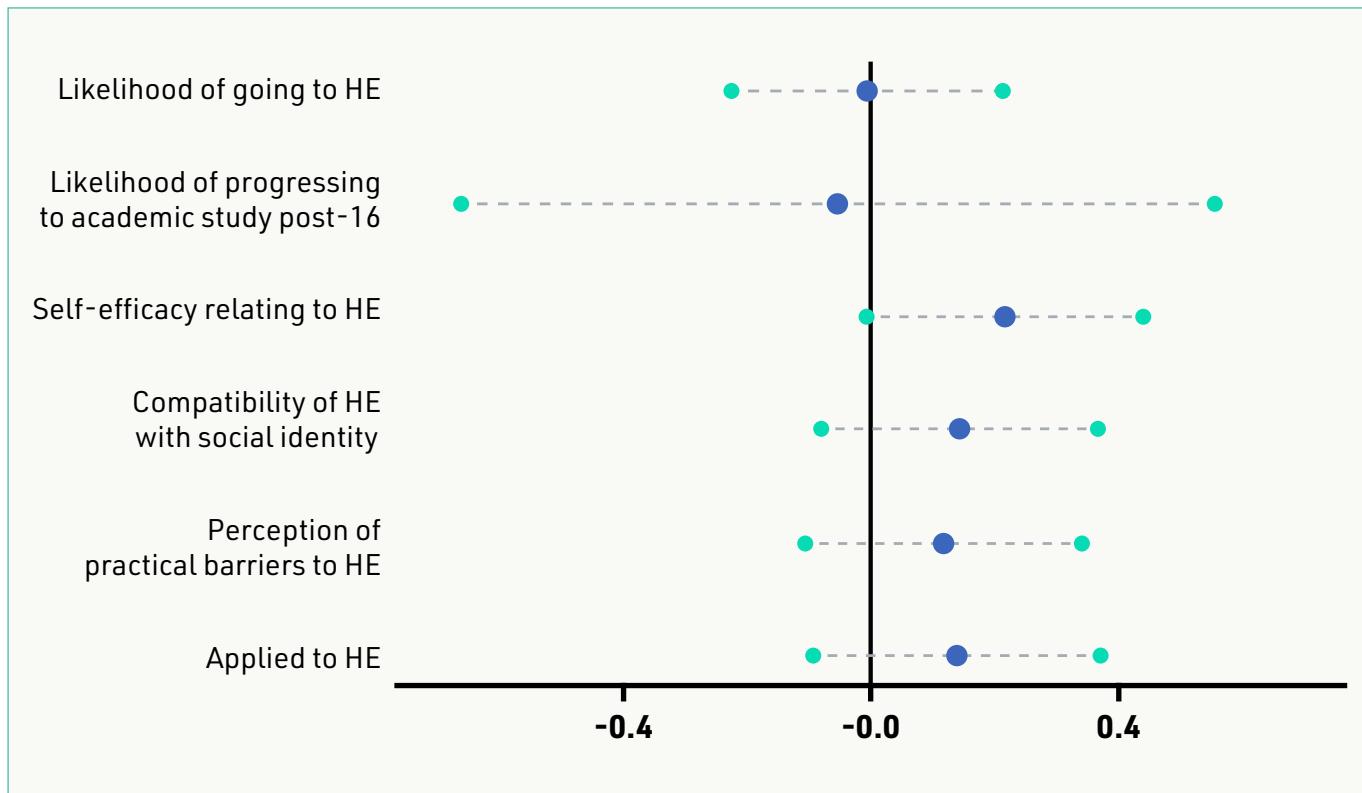
Notes: N per outcome included in brackets above.  
 'Likelihood of going to HE' and 'Applied to HE' were computed for the post-16 sample only.  
 'Likelihood of progressing to academic study post-16' was computed for the pre-16 sample only.  
 All other effects were computed for the combined pre- and post-16 sample.  
 $+ p < 0.1, * p < 0.05, ** p < 0.01, *** p < 0.001$

Figure 1 shows the estimated average effects of the summer schools, presented as Cohen's  $d$  to facilitate comparison of outcomes with other studies. Cohen's  $d$  provides an effect size for a comparison between two means, in this case, between the treatment and control group. Cohen (1969) suggested that 0.2 be considered a 'small' effect size, 0.5 a 'medium' effect size, and 0.8 a 'large' effect size. The largest effect size is for students' reported self-efficacy relating to HE, although this is still small at 0.21.

Figure 1 also visualises the effect sizes with 95% confidence intervals. These show the range of values that we can be 95% confident contain the true mean of

the population. As shown in Figure 1, the confidence intervals are reasonably large and at times cross zero, indicating that the results could also be consistent with negative and null effects. This is to be expected with a small sample size of survey responses, most notably for 'likelihood of progressing to post-16 academic study', which was only answered by 49 pre-16 students. Nonetheless, there is a visible small positive trend for four of the six outcomes of interest, and particularly for 'self-efficacy relating to HE' – the students' confidence in their ability to apply to and succeed in HE.

**Figure 1: Estimated effects size in Cohen's d for the outcomes of interest**



### b) Alternative evaluation – pre-test post-test analysis

Due to the small size of the pre-16 sample, the pre- and post-16 survey responses were combined.

A paired *t*-test was conducted on each survey question to establish whether the mean difference between pre-summer school and post-summer school scores was significant. The results of the analysis are broken down by survey outcome in Table 9.

**Table 8: Estimated effects for the outcomes of interest**

Outcome	Pre-summer-school mean	Post-summer-school mean	<i>t</i> statistic	Estimated effect (Cohen's <i>d</i> )
<b>Likelihood of progressing to HE (7-point Likert scale)</b>	6.42	6.65	2.16*	0.20
<b>Self-efficacy relating to HE application (5-point Likert scale)</b>	3.68	3.87	2.72**	0.24
<b>Self-efficacy relating to post-entry success (5-point Likert scale)</b>	3.94	4.01	1.18	0.10
<b>Compatibility of HE with social identity (5-point Likert scale)</b>	3.73	3.94	2.76**	0.23
<b>Perception of financial barriers to HE (5-point Likert scale)</b>	2.99	3.55	6.49***	0.58
<b>Perception of knowledge barriers to applying to HE (5-point Likert scale)</b>	3.13	3.94	9.06***	0.81

Notes: n = 142

+ *p*<0.1, \* *p*<0.05, \*\* *p*<0.01, \*\*\* *p*<0.001

The mean for all survey outcomes is greater after students have attended a summer school. The difference in pre-and post-summer school mean scores is also statistically significant for all but one of the survey outcomes, and highly significant for the questions around perceived barriers to HE. This means that the students in the sample report feeling significantly more confident that they can afford to go to, and know how to apply to university, after attending a university summer school.

While these results indicate a positive effect of summer schools on attitudes and confidence regarding HE, the lack of a control group means we cannot know whether the summer school caused the increase in positive attitudes or whether other factors were involved. In the time between completing the baseline survey and participating in the summer school, students could have had a range of experiences that led them to feel more positive about entering HE, for instance, activities at school, or speaking to a parent or sibling. This highlights the importance of the RCT detailed in this report.

### c) Implementation and Process Evaluation

This section of the report outlines the findings from the interviews and focus groups with students, those involved in delivering the summer schools, and parents. The findings are captured under five key themes: Mode of delivery, Motivations for applying to the summer school, Fitting in, and Finance. The report also talks about one smaller unexpected theme to emerge: Occupying time.

#### Mode of delivery

It is important to note the context in which the summer schools were operating. The evaluation was originally developed before the pandemic and had intended to evaluate face-to-face summer schools that universities had been running for a number of years. Instead, the COVID-19 pandemic meant that delivery had to shift online.

Applicant numbers were significantly down for all but one of the universities compared with projected numbers, indicating that for some students an online summer school was not at this time seen as a valuable or attractive use of time.

This was a period of interrupted learning for young people at school, with teaching delivered online and learning taking place in the home setting. A number of universities involved in the project felt that digital fatigue may have had an impact on summer school uptake. In an email exchange with TASO's Research Programme Manager, comments from universities included:

*We have experienced low applications for everything. We have other summer schools running, which are not linked with the RCT, that also had lower than expected numbers of applications.*

(Practitioner, University D)

*We have asked schools about this throughout the year and our feedback from teachers is that they have found it difficult to engage students. We were also not able to do as many promotional events as we hoped.*

(Practitioner, University D)

*Agree with [colleague]. Our overall outreach activity recruitment is about a third of pre-COVID times (mirroring the RCT project). We also liaised with teachers/advisers and decided to hold our summer schools outside of term time so I think digital fatigue and needing a summer break reduced applications.*

(Practitioner, University E)

*I'd like to echo [colleague], in that I think "digital fatigue" is a major factor in drop off in engagement. We're seeing across all our programmes but if you factor in lockdown easing and the lifting of restrictions, there are now many more things they can be doing with the time not spent in school.*

(Practitioner, University B)

Although online delivery may have affected summer school take-up, it does not seem to have had the negative effect on participants that universities thought it might, although both students and delivery teams recognise that a face-to-face summer school offers several benefits (see following section). In moving to virtual delivery, providers were keen that the key aims of the summer schools should remain the same as they would be in a face-to-face setting, that is, to increase access to participation in HE for disadvantaged and underrepresented groups. Indeed, the accessibility of online summer schools was regarded positively by some students, particularly those with care responsibilities or part-time jobs and estranged students. Online delivery also enabled students to find out more about non-local universities without having to attend in person. Other students talked about how they felt comfortable, free, or safe participating online (Post-16 students, University D), while others considered that students who struggle with social anxiety might benefit from the online method as it was less personal (Post-16 students, University A).

Students at another summer school talked about the benefits of being able to access recordings of the live sessions. The main reasons given were the ability to revise for tests or watch the recordings later for their research projects, and convenience for students who work and could not attend all the live sessions.

Implementers at University E said that they found engaging the students challenging at times, and it was difficult to know whether students understood what was being taught due to a lack of engagement through cameras and microphones. Not all students wanted to participate in answering questions, and many did not want to ask questions of the speakers. The student ambassadors interviewed considered that student engagement increased as the week went on and students were more firmly encouraged to turn on their cameras and microphones.

The importance of animated delivery was also highlighted by several students. Students agreed that the enthusiasm of the teaching staff motivated them to attend and they were impressed by the quality of the teaching:

*I think it makes such a difference when they're enthusiastic, so it was really nice when the people that were holding the webinars... you could tell they were passionate about what they were teaching too.*

(Post-16 student, University A)

*I think another important factor is definitely how the lecturers come across, like when they come across that they're interested in their job, or they present the course to you in a way that makes you want to hear them.*

(Post-16 student, University A)

Delivery staff from University F perceived the engagement of students to be generally high. They considered that this was due to social activities such as Taskmaster, which allowed them to form relationships (both between the students and with ambassadors) and work as a team, as reflected in this comment:

*The social events worked really well in terms of encouraging the group to feel more connected and confident with each other.*

(Implementer, University F)

For another implementer at this university, the range of academic and social activities delivered by multiple people was a key factor in the engagement levels of students:

*I think the use of breakout rooms and videos, such as the happiness video, was good as it broke up the day a bit and having different speakers (ambassadors, several Leads and also guest speakers) also added variation which I think kept students engaged, rather than having one speaker in one room all day.*

(Implementer, University F)

## Motivations for applying to the summer school

For many students, the aspiration to study at university was influenced by family attitudes and family experiences of attending university. Family members were generally seen as having a positive influence on the students, although their own experiences of HE were mixed – some students had older family members who had recently completed HE as a mature student, some had older siblings currently at university and, for some, no family members had been through HE:

*Both of my brothers actually go to university, so I've always wanted to go to university as well to follow in their footsteps so I thought, "Hey, this is a great opportunity to get used to it and get to know what opportunities it gives me."*

(Pre-16 student, University F)

For one student, their desire to pursue the same career as a family member inevitably meant attending university:

*I'm sort of following in my mum's footsteps in terms of career path which means I need to go to university.*

(Post-16 student, University A)

Family influence is also very apparent in the comments from students below:

*Well, I feel like my family would be very proud if I attend a good university.*

(Pre-16 student, University E)

*My family all want me to go to uni and are really supportive.*

(Pre-16 student, University E)

*Being the first in my family to graduate from university and make my parents proud.*

(Post-16 student, University D, survey response)

A few students described feeling 'a lot of pressure' to be one of the first in their family to go to university. For some, having a close family member who had gone to university but 'didn't like it' made them unsure about whether it would be the right route for them.

It is likely that students whose friends or family have attended university will have a greater awareness of HE than those who are, for example, the first in their family to progress to HE. One student identified that a lack of familial experience of HE could be problematic:

*I feel like the places you grew up and the people you were surrounded by, I feel like that impacts you going to university and where you go to university... they might not be as open about university or they might not have gone to university, so they don't really know the process. And if you have*

*family that don't really understand it, it's a bit more difficult as well.*

(Pre-16 student, University F)

Students felt strongly that university was the right choice for them, even though they had not decided which course they would like to study, or which university they wanted to attend. Thus, the findings from the IPE reveal that a key motivator for applying to a summer school – for both pre- and post-16 students – was the belief that it would enable them to make decisions on the next steps into further or higher education and beyond. In particular, students wanted to find out more about:

- a. The courses and subjects available to study
- b. Teaching and learning styles
- c. Life in HE
- d. Support available
- e. How well they would fit in

While the majority of students who attended the summer schools already aimed to go to university, some had not yet decided what they would like to study or where. These students felt that the summer school would help with these choices:

*I kind of wanted to see what it would be like to join a university so I could get an idea of what I'd like to do in the future.*

(Pre-16 student, University F)

Students were keen to learn more about teaching and learning at HE level, including course content and syllabi, delivery styles, modules available, the expected workload and the subjects available to study:

*I feel like sometimes when you go to university and like Open Days they're just predominantly talking about the university and sometimes you do just want to get a feel for the course specifically.*

(Post-16 student, University A)

*I wanted to explore other subjects as well. I want to apply for medicine, but I wanted to have a feel of biosciences, if I should consider it an option if things don't go to plan.*

(Post-16 student, University C)

*I'm still questioning what subjects I'd like to do so I'm hoping the summer school will show me if Chemical Engineering is the right direction.*

(Post-16 student, University D)

Several students across several university summer schools expressed fears that they might not achieve the grades they needed to progress to HE, meaning that they might choose instead to go straight into employment. COVID-19 had impacted the predicted grades of a few students, causing them to reconsider their final destination. As one student said, "I'm considering taking unconditional offers over conditional ones for better unis" (Post-16 student, University D). Fears over their ability to cope with the workload, which is perceived by some students as 'intense', were also cited as a potential barrier by some students from both the treatment and control groups, and both pre- and post-16 students. One non-attendee stated:

*I think the workload would be difficult depending on obviously what course you take. But because I don't have much university experience and I'm not really sure what workload would be like and how intense it would be, and if I'd be able to manage it all. So, I think, yeah, that's one thing that's a bit worrying, like trying to get everything done and not procrastinating.*

(Pre-16 student, University E)

Another stated:

*Yeah, and I think like it's scary just knowing that everything from now will go towards university so that whatever grade you get for GCSE, something they're going to look at when you get to uni whatever you get for A levels or something that they're going to look at when you're applying. So, I think just it puts more pressure on what you get for GCSE results.*

Students expressed concerns that they would not be able to cope with the volume or difficulty of the workload:

*University could be quite daunting as it involves working tirelessly on projects.*

(Post-16 student, University D)

*... managing the workload and trying to maintain a healthy balance between academics and social life.*

(Post-16 student, University D)

Findings from a university that conducted interviews with parents highlighted concerns that their child's grades might prove a barrier to them accessing and succeeding at university. This concern may be specific to this cohort, whose education has been disrupted by the COVID-19 pandemic; they may be uncertain of how their progress will be assessed and worry that their final grades may not truly represent their academic capability. (Pre-16 summer school, University H)

For other students, an undergraduate degree was seen as a stepping stone to a future career. These students felt that it was important to find out what the university could do to support their career goals and were keen to have opportunities to access career-related content outside their course to gain more experience:

*Because of the jobs that I am looking at going into, medical physics, which does require a degree, this is the first sort of step of training and then there is a further training programme after your degree.*

(Post-16 student, University A)

In addition to wanting to know more about academic life at university, many students saw summer schools as a way to gain a general picture of HE. This was particularly important for students who were the first in their families to go to university, and for students estranged from their families:

*I don't have siblings so my university experience is limited, and I don't know what to expect but with a programme like this, I could learn and gain some understanding of what it's [higher education] like. I think this programme would add to my experience and widen my perspective greatly.*

(Post-16 student, University E).

*The summer schools and other people's experiences are the only way I can really gauge what it's going to be like.*

(Estranged post-16 student, University C)

*I feel like the places you grew up and the people you were surrounded by, I feel like that impacts you going to university and where you go to university... they might not be as open about university or they might not have gone to university, so they don't really know the process. And if you have family that don't really understand it, it's a bit more difficult as well.*

(Pre-16 student, University F)

For some students, summer school was an opportunity to get to know a particular university better:

*University D is a prestigious and world-renowned university which I would love to be part of in the future.*

(Post-16 student, University D)

Some participants also had worries about not knowing what to expect and concerns over whether they could cope with independent living and learning:

*Like, everyone is anxious, like will I make friends? Will I get in? Will I be ready? I mean, there's obviously going to be a little bit of anxiety no matter, like, where you're going, what you're doing. Just anxiety, I guess, like, where do I live too? Will I make it? Will I end up there? Just that kind of thing.*

(Pre-16 student, University E)

*I'm nervous about being independent and making new friends.*

(Post-16 student, University D)

*I'm not really looking forward to having to leave my parents, as they are a huge support. And anticipating the things that I won't know that I don't know-how to do before I get there. That's really scary.*

(Post-16 student, University B)

As the above comments highlight, both pre- and post-16 students expressed anxiety or sadness about leaving home to go to university because, for example, they had younger siblings, and they mentioned this as a factor that could influence their choice of university so they could live at home. One student explained they were not ready to leave the parental home:

*I don't see the reason to put myself in an unfamiliar situation when I should be focusing on the studying.*

(Post-16 student, University C)

Students who provide care for family members expressed concerns over the well-being of the people they looked after, such as:

*the problem of distance and, like, how will it affect my time with my family.*

(Pre-16 student, University E)

Another student commented:

*I feel like it will be a daunting experience, and because I've never really been apart from my family for like no more than two, three days ... It will be hard not only on me, but on those that I see all the time.*

(Pre-16 student, University E)

Several students across various institutions were, therefore, keen to attend a summer school to find out more about the help available from the institution to support student well-being and mental health. This was the case for both pre-16 and post-16 students. Participants at one university felt that it would be beneficial to have a peer support system that they could access during their time at university:

*If they had, like, skills related to the subject that you're doing... they have knowledge it could help you in a more specific way if you are struggling with your course, but yeah just a mentor for any like everyday problem as well, I think that'd be really useful.*

(Post-16 student, University A)

When deciding which university to apply to, the institutional support available was described as a crucial factor by two students – one an estranged student, and one from a single-parent home with care responsibilities and a part-time job (University C). Neurodiverse students attending the summer school at University F, and those who had previously suffered from poor mental health, were very open about their struggles and highlighted the need for additional support at university, especially if they had not received this at school. This support could come from academic staff, support staff or their fellow students:

*Well, I think mainly for a university to be good, it has to have a caring and welcoming atmosphere, I think. To have supportive teachers is very important for me, as I have autism... I have to have a connection, to feel as if I'm welcomed and I'm wanted in a classroom, and not as if I'm slowing the classroom down, which is something I do sometimes feel. I think that's very important for a university, just to be supportive of people like me.*

(Pre-16 student, University F)

The findings from the focus groups conducted after the summer school had taken place show that students considered they had gained the knowledge they needed to make an informed decision about their future. Many students felt that attending short subject-taster academic sessions had given them an experience of different university courses, enabling them to make an informed choice about the courses they wished to pursue.

*The different workshops made me rethink what course I want to do and let me explore different options.*

(Pre-16 student, University E)

Exposure to different subjects seemed to contribute to their understanding of HE options, and the taster sessions were considered valuable as they allowed students to immerse themselves and experience a course module.

*I think it kind of just motivated me to want to go to university more 'cause it also helped me, like, decide what I actually want to be in the future.*

(Pre-16 student, University E)

*I feel like this experience has helped strengthen my views on what I want to do as I grow older, like, what kind of university I want to go to, what I'm looking for.*

(Pre-16 student, University E)

*I have also improved my communication and presentation skills which would be an important skill to what I want to do in the future. The research projects were fantastic and widened my knowledge in that subject.*

(Post-16 student, University C)

One student ambassador from University E observed that:

*Academic sessions were really good for broadening students' minds in terms of course choices and helping them decide what they want to study. Sessions on finance and UCAS applications were very well received, and students said they found these helpful and informative, as it will make their application and transition process easier, which can be the most stressful part... A very comprehensive range of sessions which left students with few/no questions by the end of the Summer School so it was clearly effective in informing students on all aspects of university.*

In terms of university choices, some students articulated that the subject-specific summer schools reassured them about the specific courses and universities they would apply to:

*It has made me realise I definitely want to attend university and study children's nursing. It has also helped me learn a lot more about what life at university is like, both in and out of the academic side.*

(Post-16 student, University C)

*I wanted to explore other subjects as well. I want to apply for medicine, but I wanted to have a feel of biosciences, if I should consider it an option if things don't go to plan.*

(Post-16 student, University B)



For some students, the summer school helped to demystify university by providing them with:

*A little idea of what work might be done at university and what work might look like at university.*

(Pre-16 student, University F)

Students commented that the summer school gave them first-hand experience of what university is actually like and allowed them a unique opportunity:

*... to go into the specifics and just get straight to the point.*

(Pre-16 student, University F)

*I feel like it seemed intimidating before, but after the summer school experience, it feels much more simple than it used to.*

(Pre-16 student, University F)

A number of students reported that they felt the summer school had improved their confidence in their ability to navigate HE and the application process. Some participants also reported that the summer school had made them feel that university would be something they could enjoy, rather than simply a requirement for their career or something to fear. For others, participating in the summer school reinforced decisions or plans already made:

*I feel like this experience has helped strengthen my views on what I want to do as I grow older, like what kind of university I want to go to, what I'm looking for.*

(Pre-16 student, University E)

Students from the University E summer school commented on how they felt more confident about university after participating in the summer school. Students felt that developing a social network had helped them to picture themselves as university students.

This correlates with feedback from parents, who said that their children had been 'boosted' by the experience. In particular, they mentioned that participation in group activities and discussions, and 'receiving positive feedback on [their] ideas and work' had contributed to their increased confidence. The summer school staff felt that the social activities gave the students confidence to interact with one

another; this view was corroborated by the student ambassadors, who said they helped the group to feel more connected and confident with one another. They also said that having smaller breakout rooms made the students feel more comfortable.

### Fitting in

In the pre-summer school focus groups, students talked about how they hoped that the summer school would provide opportunities for them to meet other prospective and current students with the same interests, with whom they could identify in different ways. Comments included:

*I also would hope to talk to students about my worries and concerns and see if they had the same and what comforted them.*

(Post-16 summer school, University C)

Some students from University A felt that universities were still designed to cater to students from a certain social class studying a certain type of course, and that this affected inclusivity. As a result, students felt discouraged from attending universities of this type because they felt they could not provide the support they needed and questioned whether they would belong in such an environment:

*Upper-class students or upper-class children and people, they just go to Oxford and Cambridge, but I think universities are trying to improve that and they're trying to include a wide range of people so far, like, state schools, grammar schools and private schools. But, for example, if I were to go to Oxford or Cambridge, I wouldn't want to see people who are only from private schools and select, elitist schools. People like a wide range of people.*

(Post-16 student, University A)

The desire for a diverse student body was also discussed by pre-16 students from the University F summer school in terms of neurodiversity, cultural diversity, mental health and well-being. Students from mixed or minority ethnic households particularly highlighted this and said they would feel more welcome if 'there were people from the same country or just the same backgrounds' around them.

*I think a really big thing is mental health and not feeling accepted. If you don't feel accepted in a space, you're not going to want to be there. And if your mental health is in a really bad place, you're not going to want to go outside, never mind go to lectures and be around other people. So, I feel like that's a really big impact on people. I feel like we have to feel good in ourselves and then we can feel confident around others too.*

(Pre-16 student, University E)

Summer school project partners considered that it is more difficult to create a sense of belonging in a virtual setting. The providers involved in the project employed a variety of methods to try to create a feeling of community and engender a sense of belonging. The use of breakout rooms was highlighted by implementers at University F as helping students to feel more comfortable with one another. Indeed, the lack of opportunity to get to know other students was one criticism of how summer schools were delivered at University D:

*Perhaps a little bit more interaction with the students such as having a session where the students introduce themselves to the subject team and to the rest of the students. This would help knowing more about each other.*

(Post-16 student, University D)

In addition, students engaged via a range of textual and verbal methods available to them in the digital environment that aligned with their comfort and confidence levels, such as annotating on screen, using the chat function on Zoom, unmuting their microphones and speaking on camera, and uploading work. These offered alternative ways for less-confident participants to communicate, who may not have contributed to discussions in a face-to-face situation. Implementers also adjusted some planned activities to promote engagement. For example, ambassadors used the whiteboard function or shared their screens to encourage discussion with the students. That said, the limitations of a virtual summer school were also recognised. The social activities relied heavily on student engagement which, although generally high, was harder to

encourage virtually, and participation in these activities via chat functions was less effective. Comments included:

*The online environment has some inevitable limitations, which may have deterred or diminished participation by some students. Students may have developed stronger, or deeper relationships with each other and the ambassadors in an in-person environment. Social elements of the summer school were limited by the online environment, especially for shyer students, but many still engaged well – especially in their small groups – and fun was still had, albeit not in quite the same way as a traditional residential. Opportunities for exploring and experiencing the practicalities of campus life were inevitably limited in the online environment.*

(Implementer, University F)

Some ambassadors found group activities challenging in a digital environment. Those who had worked at in-person summer schools said they missed informal conversations with students between timetabled activities, especially when students chose to do their independent work offline rather than being present in the breakout rooms made available to them with their mentors. They suggested an introductory 'round robin' at the start of the summer school so the students could get to know all of the ambassadors, rather than just those they worked closely with. One ambassador thought that a dinner social event did not translate well to an online setting, with ambassadors finding it 'awkward' eating on camera when the majority of students had turned their cameras off.

The key role of student ambassadors was also highlighted by a number of students who felt that their involvement was a crucial aspect of summer school delivery:

*I found that having the student ambassadors there was really helpful... they really added to the experience.*

(Post-16 student, University A)

*It is nice having the student ambassadors because, in yesterday's sessions, when we were just with them in the morning, they told us a little bit about university life and, gosh, explained what it was like. So that was good, and it has helped me to understand what university will be like.*

(Pre-16 student, University F)

The ambassadors were able to reassure students that university was for people like them, and offered a range of different views and opinions. Students were able to interact with:

*... students my own age who I didn't know, and ambassadors and staff of different ages'.*

(Pre-16 student, University F)

Students from University B also stated that they particularly appreciated the sessions delivered by current students rather than members of staff.

Implementers from University F believed that the social activities organised helped students to develop the confidence to interact with one another and with staff, enabling the development of a sense of community:

*Something that I particularly liked was the support the students offered each other, often responding to and congratulating each other on their ideas in the chat.*

(Implementer)

Some students felt that it was important that the university had students from a range of cultures, which would enable engagement and friendship opportunities with people from diverse backgrounds:

*I think that I wouldn't want to personally go to a university that only represents one certain class.*

(Post-16 summer school, University A)

*We can talk to one another about how your sort of background differs and sort of like just talk about sort of social changes that you had to go through within your life ... And you'd just be talking about similar views as well and sort of coming together as a group, and being very inclusive.*

(Post-16 summer school, University A)

## Finance

Both pre- and post-16 students expressed concern about how they were going to finance their university studies. Some were worried that they could not afford to go to university; others articulated concerns about accumulating debt or being unable to afford day-to-day costs. At University F, students used terms such as 'weighing on me', 'pressure', 'scares me', 'worrisome', 'difficult', 'uncomfortable' and 'distressed' to describe their feelings. A student from the University B summer school commented:

*I think something that is going to make it hard is money. Everything about moving to uni is obviously very expensive and for people that are kind of in the middle ground when qualifying for financial help, like me, it is very difficult to know what to do.*

(Post-16 student, University B)

The very small amount of data collected from the control groups reveals similar concerns:

*I know my parents have been saving for me to be able to go to university should I want to, but at the same time depending on where I go, what course I take and stuff, it could add up and then student debt is a thing that a lot of people talk about. So, I think getting an understanding of how financial stuff would work would help. Like to reduce that fear I guess.*

(Pre-16 student, University E)

Some students also mentioned how going to universities closer to home would ease the financial pressure, as shown in this quote:

*I'd be happy to live on my own, but I am considering staying closer to home for financial reasons because I feel I would be able to have a lot more money, because at home ... I only have to make a small contribution, I don't have to worry about bills. I feel like it'd be easier for me to just keep my part-time job and keep focusing on my education and volunteer and other things like that than having to worry about things like your accommodation and rent.*

(Post-16 student, University C)

After the summer school, many students felt they had an increased understanding of the financial aspects of HE. Students felt the information provided about finance was the most useful aspect of the summer school, in particular, learning about types of loan and how they work, financial support and costs. Students attending other summer schools gained a sense that costs were manageable and saw them as an investment in their future:

*I'm not really looking forward to the financial side of things, that's going to be quite difficult to pay for. It's not at all a heavy cost to pay in terms that I'm going to be receiving the best possible higher education that I can get. It will help me so much in life that by paying the money that I need to pay it's not really going to hurt because I could always use the education that I've been given in the university to get a better job and therefore earn that money back. I am now confident that I could afford to go to university and I don't feel scared about being in debt.*

(Pre-16 student, University E)

*What I'd say stood out the most would be the talks on finance because I was very ignorant to that aspect of university. I didn't know things like bursaries so I feel more educated on that.*

(Post-16 summer school, University B)

*The actual having the money, like, I know I'm lucky enough to qualify for bursary, I get the maximum student loan, but then it's... I can talk to my friend at university, "Oh, I do not have enough money, I could ask my parents to be able to help me out". I don't have that, so if you run out of money it's "Oh, I have run out of money", but they did mention the hardship fund, so you know if you need it in an emergency which was nice to hear about.*

(Post-16 student, University C)

## Occupying time

For a very small number of students, taking part in summer school was simply a productive way to spend the summer. This was mentioned in pre-intervention interviews but more frequently after the summer school had taken place. This is perhaps unsurprising, as these students had suffered considerable disruption to their education over the previous two years due to pandemic-related lockdowns. One student said that they had struggled to motivate themselves to complete schoolwork independently during lockdown, and that they understood that 'in university you are quite independent with your learning' so this was a skill they were keen to develop:

*Because it's the Summer and I feel like if I hadn't have done this, I would've wasted my time and not done anything else. So, this feels really productive.*

(Pre-16 student, University F)

Comments from students at University E's summer school suggest that the pandemic positively influenced their decision to apply for the summer school because this enabled them to do something educational at a time when their typical educational experiences were interrupted, and they were not able to travel to a university campus. One student commented on the need to maintain their academic progress after learning from home during the pandemic.

## 5. DISCUSSION

These interim findings provide useful evidence of the impact of summer schools. When focusing on the RCT results in isolation, where a control group is included for comparison, the interim findings suggest that the online university summer schools in this study may have had a small positive effect on self-reported applications to HE as well as the hypothesised mediating mechanisms – self-efficacy relating to HE, compatibility of HE with social identity and perception of practical barriers to HE. However, these effects are not significant at the 5% level and are small overall. The evidence most strongly supports the idea that summer schools have a positive effect on participants' self-reported self-efficacy relating to HE, that is, their confidence in their ability to apply to, and succeed at, university. The estimated (positive) effect on self-efficacy relating to HE is significant at the 10% level ( $p = 0.07$ ).

Although there are clear limitations to the methodology in terms of the small sample and lack of control group, the pre-test post-test analysis found that post-summer school scores were significantly higher than pre-summer school scores in the majority of survey outcomes, contributing to evidence of a correlation between summer school attendance and a positive attitude towards HE.

The survey findings are complemented and often corroborated by those captured as part of the IPE. These combined findings suggest that the key outcomes outlined in the Theory of Change were realised. This, in turn, suggests that the assumptions underpinning the intervention on how change occurs are sound. The findings reveal that, once providers had decided to deliver summer schools virtually, they implemented them as planned and all partners adhered to the stated intervention aim of increasing access to and participation in HE for disadvantaged and underrepresented groups. As outlined in the project Theory of Change (Appendix II), the first stated outcome is that students see HE as a more desirable option. The survey and focus group findings highlight that the majority of students were already interested in progressing to HE when they applied to take part in a summer school, however, key reasons for applying cited by students include a desire to acquire the knowledge and understanding needed to be able to make an informed choice of course and location.

Some students also voiced fears and concerns about going to university, some of which arose from a sense of not knowing what to expect. The interviews and focus groups with students after the summer schools had taken place suggest that students' confidence to apply to HE had increased; the summer school experience had helped to demystify university for them and they now felt able to make an informed decision on their next steps. Barriers to HE were also discussed in-depth, and participants were able to explain how their understanding of student finance had increased, including how knowledge of bursaries and hardship funds had helped to ease their concerns around affording university. This contrasted with a student in the control group who expressed concerns around 'not knowing how the finance stuff worked'.

Students also sought reassurance that they would fit in at university. Whilst the survey asked whether students felt university was for 'people like [them]', participants in the focus groups expanded further on being able to 'picture themselves' at university, and that seeing people from similar backgrounds attending the summer schools and among the student ambassadors allowed them to feel that they could fit in. This was particularly important for those students who reported that they would be the first in their family to enter HE.

Academic/subject knowledge was not specifically covered in the survey but was a recurring theme in the qualitative findings. The opportunity to learn subject-specific knowledge and skills was seen as key to the experience and facilitated future decision-making in terms of course choice. As a result, we will look to explore in later HE enrolment data any correlation between course choice and attendance at a subject-specific summer school. These activities may also motivate students to work harder to achieve the grades needed for specific course choices and, as Key Stage 4 and 5 attainment data will be accessed as part of the final report, we are keen to explore whether the summer schools are positively associated with attainment, in addition to the impact on HE-related outcomes.

### Limitations of Research and Future Directions

As highlighted above, none of the positive effects in terms of survey outcomes were significant at the 95% confidence level and the results are also consistent

with negative and null effects. Whilst large confidence intervals are to be expected with small sample sizes (fewer than half of RCT participants completed the survey), more concrete evidence is needed to ascertain the true impact of HE summer schools, particularly as those who responded to the survey are likely to be a highly motivated sample. Enrolment in HE is the primary outcome measure on this project; as this outcome is not reliant on response rates and is obtained instead from administrative data, we expect a full sample size of data.

Nonetheless, likely due to the impact of the pandemic, fewer applications for summer schools were received than expected which has resulted in a smaller trial sample. We may, therefore, have insufficient data to detect a true difference in outcomes between the treatment and control groups.

Self-reported applications to HE by the January UCAS deadline were very high for both the treatment and control groups, and it will be interesting to see whether this is reflected in actual enrolment rates. Even at baseline, nearly all students reported a high likelihood of attending HE in the future and students participating in the focus groups prior to the summer schools also talked about 'definitely' wanting to enrol. It is likely that those who apply to a university summer school already view HE as a favourable and/or probable path and, if so, we are unlikely to see a significant difference in HE enrolment rates between those that attended summer schools (the treatment group) and those who did not (the control group). This paves the way for further exploration, such as whether attending an HE summer school increases the likelihood of enrolling at the host university or a top-tier institution. The findings may also demonstrate the need for HE providers to better target and support disadvantaged and underrepresented students with their outreach interventions. Harrison and Waller (2017) argue that WP activities tend to target disadvantaged young people who have been identified as having 'potential' and are, in many cases, already on the HE trajectory. Resources are thus being allocated to change the behaviour of an individual who is likely to display the desired behaviour anyway. It is, therefore, imperative that providers target students who may enrol in HE after taking part in the intervention, but who would not enrol without it. Designing an RCT that includes these students may then further reveal the impact of summer schools on widening access. It should be noted that a cost evaluation of the summer schools included in the trial is being conducted and will feature in the final report. Here, we will explore whether the benefits of summer

schools justify the resources required to deliver them, or whether there may be more cost-effective and/or high-impact alternatives.

It is also worth noting that although we ensured that students allocated to the control group, or indeed the treatment group, could not be placed at any other university summer school within the project, we could not prevent students from applying to and being accepted by summer schools that were not part of the project, nor from taking part in any additional HE outreach activity. To establish how often this occurs, participating universities will use HEAT to track the other HE outreach activities in which their applicants have participated, and this data will feature in the final report in 2024. In the meantime, as part of the post-summer school survey, students were asked about their participation in a variety of additional outreach activities, including campus visits, subject tasters and information, advice and guidance (IAG). Of the students who responded to the survey ( $n = 342$ ), only one reported not taking part in any additional outreach activity previously. Whilst this was balanced across the treatment and control groups, it makes it more difficult to identify attitudinal and behavioural differences between summer school attendees and non-attendees when the summer school is only one of a host of other HE-preparatory activities. This further supports the notion that summer schools may have a bigger impact when targeting students who are initially less likely to attend HE.

Finally, as a result of COVID-19, the summer schools evaluated as part of the project were delivered online, a mode of delivery that is not the norm. There is a lack of evidence on whether online summer schools can have the same effect as face-to-face events; however, given that summer schools usually contain a residential element and the experience of being on campus, it seems unlikely that an online experience could recreate this. Nonetheless, as demonstrated by the IPE findings, online events have benefits in terms of access and reach, and responses from both the survey and focus groups indicate that a sense of belonging in an HE setting may still be achieved remotely. Online interventions also cost less; therefore, if they can still achieve positive outcomes for students, they may be better value for money than face-to-face alternatives. Subsequently, TASO has extended the research project to evaluate face-to-face summer schools which will be taking place over the summer of 2022. Five university partners will be involved, allowing a comparison of online and face-to-face delivery.

## 6. REFERENCES

**Burgess, A. P., Horton, M. S. & Moores, E.** (2021). Optimising the impact of a multi-intervention outreach programme on progression to higher education: recommendations for future practice and research. *Heliyon*, 7(7), e07518.

**Cohen, J.** (1969). *Statistical power analysis for the behavioral sciences*. New York: Academic Press.

**Harrison, N. & Waller, R.** (2017). Success and impact in widening participation policy: What works and how do we know? *Higher Education Policy*, 30(2) 141-160.

**Robinson, D. & Salvestrini, V.** (2020). *The impact of interventions for widening access to higher education: A review of the evidence*.

[https://s33320.pcdn.co/wp-content/uploads/Widening\\_participation-review\\_EPI-TASO\\_2020.pdf](https://s33320.pcdn.co/wp-content/uploads/Widening_participation-review_EPI-TASO_2020.pdf)

**Huband-Thompson, B., Joshua, V., & Mulcahy, E.** (2021). COVID's impact on young people's post-18 plans and access to higher education outreach. <https://cfey.org/wp-content/uploads/2021/09/COVIDs-impact-on-YP-access-to-HE.pdf>

**TASO** (2021). *An investigation into the relationship between outreach participation and Key Stage 4 (KS4) attainment/HE progression*.

<https://s33320.pcdn.co/wp-content/uploads/relationship-outreach-attainment-progression.pdf>

**UCAS** (2022) UCAS Undergraduate sector-level end of cycle data resources 2021.

<https://www.ucas.com/data-and-analysis/undergraduate-statistics-and-reports/ucas-undergraduate-sector-level-end-cycle-data-resources-2021>



## 7. APPENDICES

### APPENDIX I: Intervention descriptions by university

The following descriptions summarise the activities in each summer school.

#### University A (Languages)

A five-week programme with two hours of content each week focused on French, German or Spanish, according to the student's choice. The online workshops were designed to give a taster of studying languages at the university, expose students to the career opportunities available to graduates and provide the opportunity to meet current students on modern language courses. Further sessions included Joint Honours taster sessions, life at university as a modern languages student, informal networking, applying through UCAS and writing a personal statement, as well as social sessions, Q&A sessions with university alumni and a final celebration to showcase student learnings.

#### University A (Social Science)

The focus of this five-day event was the 2021 United Nations climate change 'conference of the parties' (COP26). Students took part in a range of activities and workshops to understand how various social science subjects engage with climate change, learned about the upcoming COP26 conference, and considered how we can save the planet. There were six interactive academic workshops, giving students an insight into studying various subjects at university, and how these engage and respond to the topic of climate change. There was also an opportunity to speak to current students at the university regarding student life, moving away from home, finances, the transition from school or college to university, clubs and societies, and any other questions related to student life.

#### University A (Bioscience)

This was a three-day online summer school for year 12 students interested in exploring biological sciences at the next level and finding out where these can lead. As well as taking part in lectures, students were involved in a project of their preference, experiencing what research is really like from start to finish. Students had the opportunity to meet academics and current students from the Faculty of Biological Sciences and take part in a Q&A session to find out more about the university's undergraduate degree

programmes and future career pathways. Sessions also covered enhancing a UCAS application and included an opportunity to speak to admissions staff and receive advice on how to maximise what they had learnt at the event in their personal statements.

#### University A (Maths)

This short Zoom course for students in their first year of sixth form provided an introduction to mathematics at the university. Students were offered a preview of university life together with an insight into how mathematics develops at degree level. The university tutors extended and enriched students' existing study of mathematics at A-level (or equivalent) through lectures and interactive workshops. They also offered students an invaluable insight into the structure of mathematics degrees, courses, admissions procedures and how to optimise their application to university. Other sessions focused on careers specific to this degree, writing a personal statement and student finance.

#### University A (Psychology)

This summer school was designed to give Year 12 students an insight into life studying psychology at university, and the science behind why we behave as we do. Taking place online over four days, participants took part in subject masterclasses on different areas of psychology, heard from current students about their experiences of studying psychology and learnt more about the process of applying to university. This included sessions specific to UCAS, writing a personal statement and applying for student finance.

#### University B

This was a four-day summer school, with sessions and activities offered on each of the first three days. The number of sessions on each day varied. Some sessions were staff-led; others involved panels of student ambassadors who were current students at the time. Topics covered included student life, student accommodation, choosing the right university, student finance and managing money, preparing for university, writing a personal statement and applying through UCAS. The fourth day included free time for students to watch pre-recorded on-demand sessions.

## University C

Three simultaneous virtual summer schools were hosted online. These were divided by academic

departments; across three faculties, 15 different subjects were available, as shown in Table 10 below:

**Table 10: Subjects available in the three virtual summer schools by faculty**

Faculty of Health and Medical Sciences (FHMS)	Faculty of Engineering and Physical Sciences (FEPS)	Faculty of Arts and Social Sciences (FASS)
Biosciences	Engineering	Law
Veterinary Science	Chemistry	Business
Psychology	Maths	English and Creative Writing
Nursing	Physics	French
Midwifery		Spanish
Paramedic Science		

The summer schools were hosted through the University's virtual learning environment, used by current University students. Additionally, live webinars were delivered via Zoom. Students had the opportunity to engage with Brightside online mentoring platform to contact peers and mentors. Brightside was used for research projects where students could work in small groups with ambassadors, using the moderated group chat function. Students could also chat with ambassadors individually to ask specific questions about their course or the projects. Live Zoom sessions were also organised to support the research project where students could talk live with their ambassador mentor and other project group members.

## University D

Eight subject-specific summer schools were offered, with several IAG sessions common to all subjects. The sessions were delivered virtually through both synchronous and asynchronous modes of delivery, via virtual platforms including Blackboard Collaborate, Zoom and a bespoke platform developed by the Sutton Trust.

## Common elements

These included sessions covering personal statements, finances and careers, as well as information sessions for parents. There were also social sessions, including an online escape room, a quiz and a takeaway evening. The week opened and closed with two large group events, to welcome students and celebrate their completion of summer school.

## Subject-specific sessions

### Architecture

The theme of this summer school was 'Patterns of Living'. Students discovered each other's daily rituals and undertook a critical investigation of their own daily routines in an architectural context through walking, looking, drawing and making. Students navigated the week through a series of lectures, podcasts, readings, demonstrations and hands-on tasks.

### Astrophysics

Subject-specific sessions included a virtual tour of the university observatory, lectures (e.g. coding using Python, space weather and earth management) with supporting Q&A sessions, support sessions and a practical workshop to develop a research proposal for a space mission.

### Biosciences

Subject-specific sessions included an introduction to the staff and summer school, lectures (e.g. plastic pollution in the oceans and molecular machines) and team work on presentations for the end of the week, supplemented by presentation skills and support sessions.

### Chemical Engineering

Subject-specific sessions included an introduction to the teaching team and departmental staff, conducting experiments both on the computer and in students' homes with a supporting results discussion and Q&A, live demonstrations, research skills, a project to designing their own experiment that was presented to the group through a poster, and talks with both current students and the admissions tutor.

## **Economics**

Subject-specific sessions included an introduction to the staff and the summer school along with an economics walk, lectures (e.g. economics, sports and social media, and economists save the world), guest talks on economics graduates' experiences, poster creation and presentation, and meeting the careers and admissions tutors.

## **Health and Well-being Data Science**

Subject-specific sessions included an introduction to the summer school and staff, lectures including recommended reading, seminar sessions to discuss reading and carry out tasks, and practical sessions (e.g. Excel).

## **History**

Subject-specific sessions included a general introduction to the staff and summer school, including an icebreaker session and then daily introductory sessions; lectures (e.g. place, space and material culture); seminars (e.g. material culture); independent study with tasks, such as preparing a presentation; miscellaneous events, such as a tour of the British Museum, and admissions talks from tutors and student ambassadors.

## **Natural Sciences**

Subject-specific sessions included an introduction to staff and the programme, lectures, workshops discussing material from lectures, project work sessions, working towards a presentation at the end of the week, and admissions and career talks.

## **University E**

This debut online summer school for Year 10 students took place across three days on the digital platforms eLearn, Microsoft Teams and Zoom from 2 to 4 August 2021. Activities were split into four sections: general information on HE, subject-specific information, social sessions, and well-being sessions. In total, 28 synchronous sessions were offered: six HE information sessions, five subject tasters, three well-being-based activities and 14 social-building opportunities, including an online quiz and an online gameshow bonanza activity. Students pre-selected their five subject tasters from a range of option. Content was delivered by relevant experts: academic lecturers, student support service experts, a Pilates instructor, event facilitators, student ambassadors and outreach practitioners. Participants were offered online sessions covering digital campus tours, a careers workshop, student finance, the Students' Union and student life, with breaks and social time

incorporated into the schedule. They were given a food parcel, lanyard, t-shirt and a digital prospectus bookmark. Students accessed Microsoft Teams, eLearn and Zoom for various interactions where they utilised the chat function and kept their cameras running when appropriate.

## **University F**

The summer school was a four-day online event for Year 10 students, using both Zoom and Thinkific. Day 1 involved ice-breakers and an introduction to current university students, followed by activities focused on barriers to happiness and approaches to positive psychology. The second day turned to academic barriers: students engaged in a practical research session to enable them to answer questions on this topic, drawing on examples from multiple disciplines. The third day focused on the 'Big Question' around community barriers - 'How can we make our communities better places in the wake of COVID-19?' - which required students to create a submission for a digital time capsule, working in small groups to brainstorm ideas for the focus and media used in their response and independently engaging with relevant materials. The final day was a launch and celebration event, to which parents/carers were invited. While most activities were live, students could carry out independent activities at any time using Thinkific.

## **University G (Cancelled due to COVID-19)**

The summer schools were intended to be a one-day programme, held in two different schools to give pupils a miniature experience of university life. Year 9 pupils would have taken part in a range of activities alongside a mini-research project, for which they would have received university-style criteria and a grade upon completion. Pupils would have selected which mini-lecture (out of a possible 6) they would like to 'attend' and would have been given a question to answer in the form of an academic poster. They would have been given time during the day to complete their poster and would have had support from Outreach Ambassadors and members of staff. Pupils would have been supervised and supported by members of the university staff and student ambassadors throughout this process but would have been in control themselves and responsible for producing their academic poster. Attendees would also have had the opportunity to take part in an activity based on a society or club offered by the university, for example, knitting. Finally, pupils would have received IAG on courses, finance and extracurricular activities.

## **University H**

This summer school was targeted at Year 9 and 10 students to give them a taste of university, with sessions on a range of HE-specific areas and the opportunity to ask questions of current university students. As part of the experience, students worked

in groups to produce a marketing campaign to promote the non-academic benefits of university to their peers, exploring the topics of belonging, independence, agency and exploration.



## APPENDIX II: Theory of Change

<b>Situation</b>	Students from disadvantaged and underrepresented backgrounds are less likely to apply to and enrol in HE than their peers.			
<b>Aims</b>	To increase access to and participation in HE for disadvantaged and underrepresented student groups			
Inputs	Activities	Outputs	Outcomes	Impact
<b>Process</b>			<b>Impact</b>	
<ul style="list-style-type: none"> <li>Online platform to host summer school.</li> <li>Delivery staff time and student ambassador support.</li> <li>Academic staff support (subject sessions) and time.</li> <li>Promotion materials.</li> <li>Data collection systems.</li> </ul>	<ul style="list-style-type: none"> <li>Virtual campus tour</li> <li>IAG sessions</li> <li>Subject taster sessions</li> <li>Social activities</li> <li>Q+A with student ambassadors</li> <li>Group work with other summer school participants</li> </ul>	<ul style="list-style-type: none"> <li>Students experience a HE setting.</li> <li>Students are exposed to different subjects available HE.</li> <li>Students have the opportunity to interact with other summer school students.</li> <li>Students have the opportunity to interact with current university students.</li> </ul>	<ul style="list-style-type: none"> <li>Students see HE as a more desirable option.</li> <li>Students perceive fewer barriers to progressing to HE.</li> <li>Students have increased confidence in their ability to succeed in HE.</li> <li>Students understand how to make a successful application to HE.</li> <li>Students develop a sense of belief that HE fits with their social identity.</li> <li>Students are equipped with the knowledge to make an informed decision about their future.</li> </ul>	<ul style="list-style-type: none"> <li>Students are more likely to apply to HE.</li> <li>Students are more likely to enrol in HE.</li> <li>Students are more likely to progress to a specific subject in HE (for subject specific summer schools).</li> <li>Students are more likely to apply to a top tier provider.</li> <li>Students are more likely to progress to academic study post-16.</li> </ul>
<b>Rationale &amp; Assumptions</b>	Research has shown that summer schools are positively associated with an increase in student confidence and aspiration to progress to HE. Assumptions are that the summer school will go ahead, it is possible to provide a virtual summer school experience, students will apply to take part, attendance and engagement is sustained, students have appropriate digital access, and students will be supported to engage.			

## APPENDIX III: Focus group schedules.

### Pre-summer school student focus group/interview schedule

#### May 2021

- Before starting the interview, interviewer to introduce themselves, briefly explain the project and why we're interested in talking to them about the summer school.
- Run through the consent form, allow time for them to read the background information sheet.
- Ensure interviewees understand that they can withdraw from the research, and that they know the process for this.
- Explain that the interview will be recorded but that they can ask for the recorder to be switched off at any time.

Interview should last around 20 minutes.

- What motivated you to apply to the summer school?
  - What are you hoping to get out of attending the summer school?
- Has the pandemic influenced your decision to apply?
  - i. *Build in probes* – in what ways?
- How do you feel about going to university  
Pre-16 students: 'in a few years']?
  - What do you think will influence whether you apply to university or not?
    - *Build in prompts* re: knowledge, priorities, perceptions of value of HE. Reflection on social, cultural and familial identity and the relationship on HE decision making. Influences on decisions; knowing how to apply and being confident they can make a successful application; having a good idea of what they want to study; being able to fund their studies
- In what ways might university be a good fit for you? What could be missing that may make you feel more comfortable?

- What could universities do to make you feel more welcome? (prompt: What kinds of things are important for you to feel comfortable in a new place?)
- What do you think might help you settle into university? How could universities help you to settle in?
- What could get in the way of you going to university? Why would that stop you?
  - Challenges and solutions
- What are you looking forward to most about going to university? Are there any aspects of going to university you're not looking forward to so much?
  - *Build in prompts* – not really know much about university; meeting new people/making new friends/moving away from home/being independent; the social life/clubs/sports/activities; the academic side of university life/different ways of learning; different assessment methods

**Thank participants for their time. Ask if they have any questions.**

### Implementer focus group/interview schedule

#### June 2021

1. Can you tell me about your role on the summer school?
  - a. Is this a new role or something you've done before?
2. Can you tell me about the activities that you've been involved with?
  - a. What's your perception of student engagement with the activities you're involved with, and the summer school as a whole?
  - b. What do you feel has gone well? Why?
  - c. What do you feel hasn't worked so well? Why not?
3. Did all students attend sessions, as expected?
4. Is there anything that you feel should've been included in the summer school?
5. Did you change any of your planned activities? If so, why?

## Post-summer school treatment student focus group/interview schedule

### June 2021

1. Are you pleased you attended the summer school? Did it fulfil your expectations?
  - a. If yes, why?
  - b. If no, why not?
2. Do you feel you have a better understanding of [provider to include topics specific to their summer school here, but could include IAG, university life and what to expect, subjects available to study, teaching and assessment methods, qualifications needed etc]?
3. Can you see yourself attending university/HE in the future? This might be provider specific and ask whether they will be making an application to the summer school university.
  - a. *For those students who are thinking of applying to HE 'Is there anything that might make it more difficult for you to apply to university?' Build in probes which might include fit/sense of belonging; the academic side of university life/different ways of learning; different assessment methods*
4. Have your feelings about going to university/further education changed since attending the summer school?
  - a. If yes, how and why? Were these changes because of something you found out/experienced at the summer school?
  - b. *Where a student is undecided*
    - What do you think will influence whether you apply to university or not?
    - Process-orientated questions re: knowledge, priorities, perceptions of value of HE. Reflection on social, cultural and familial identity and the relationship on uni decision making. Influences on decisions.
    - *Build in probes - (Prompt using survey responses - knowing how to apply and being confident they can make a successful application; having a good idea of what they want to study; being able to fund their studies*
5. What did you find most useful about the summer school?
  - a. *Why? (Build in probes around delivery modes, people involved in delivery, activities)*

6. Is there anything that wasn't included in the summer school that you would have liked?
7. Do you think there are things that could get in the way of you going to university? Why would that stop you?
  - a. Challenges and solutions
8. Are there any aspects about going to university you're not looking forward to so much?
  - a. *Build in prompts - are there things such as not really knowing much about university; meeting new people/making new friends/moving away from home/being independent; the social life/clubs/sports/activities; the academic side of university life/different ways of learning; different assessment methods*

## Control group student focus group/interview schedule

### June 2021

1. What motivated you to apply to the summer school?
  - a. Have you enrolled in another summer school? Are you taking part in other activities to help you find out more about university?
2. Can you see yourself attending university/HE in the future?
  - a. *Why/why not? Build in probes which might include fit/sense of belonging; the academic side of university life/different ways of learning; different assessment methods; - knowing how to apply and being confident they can make a successful application; having a good idea of what they want to study; being able to fund their studies.*
2. What do you think will influence whether you apply to university or not?
  - a. process-orientated questions re: knowledge, priorities, perceptions of value of HE. Reflection on social, cultural and familial identity and the relationship on uni decision making. Influences on decisions.
2. Have your feelings about going to university/further education changed since you applied to attend the summer school?
  - a. If yes, how and why?



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