

University of Gloucestershire
Outreach Activity Evaluations (2015-2018)

Date of Analyses: February 2019

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Summary

Findings:

- 92% of students aged 18 and younger declared that they would choose university as an option after participating in an Outreach activity (73% on average).
- More students chose university as an option with:
 - Subject Specific activities and Campus Visits
 - Delivery by Outreach Practitioners or Academics
 - BME backgrounds
- 86% found the sessions interesting, which was more pronounced with:
 - HE Subject Insight, Conferences and HE Information Sessions
 - Sessions led by Academics
- 85% learnt something new, particularly with:
 - Delivery by Academics

Raising Aspirations – Students positively changed their mind about the prospect of studying at university, which increased when students:

- were aged 16 and younger or were in Year Groups 8 through 11 when first participated
- were from lowest participation neighbourhoods (POLAR4 Quintile 1 postcodes)
- attended an activity on any of our campuses, especially an Aspiration Day

Students who participated in a Residential activity also demonstrated reduced barriers, increased familiarity with applying and a greater understanding of higher education in order to make informed decisions about their futures.

Potential Recommendations:

- Offer Subject Specific sessions on campus encountering our Academics whenever feasible.
- Continue to focus on raising aspirations to study at university in students aged 16 and younger (up to Year Group 11).
- Ensure students in Year Groups 12 and above encounter practical sessions to assist with university applications and enrolments.
- Examine factors that increase likelihood that students from BME backgrounds would choose university as an option and disseminate evidence of what works.
- Increase perception that university is an option for students with widening participation characteristics:
 - Take positive action to target students with widening participation characteristics, particularly focussing on increasing offering amongst low participation neighbourhoods (POLAR4 Quintile 1 postcodes), males, students in care, and disabled students.
 - Generate a practical session tailored to first generation prospective students.
 - Explore reasons mature students (aged 21 and over) are less likely to choose university as an option in order to create a tailored intervention if required.

Future analyses will include tracking university enrolments.

Outreach Overview

Objectives

The goals of Outreach activity are to help students make informed choices about university study and ultimately to assist students to enrol in higher education should they wish to do so. Outreach also aims to widen participation to higher education amongst disadvantaged or underrepresented populations. The Outreach Practitioners develop and deliver workshops and talks; campus tours and more intensive activity such as Conferences, Summer Schools and Residentials. They also coordinate subject tasters with academics and organise mentoring for Year 9 students.

Students are provided with an opportunity to complete an evaluation after each session or activity. The evaluation forms capture information about which types of students are engaging with Outreach activity, their feedback from the activity and whether they thought that the activity influenced whether they would consider university to be an option.

Evaluations

Evaluation data were collected from Outreach participants directly after they participated in an activity from September 2015 to 2018 (23,175 valid evaluations). Please see the attached Evaluation Form for more details. The frequencies and percentages from these evaluations are displayed in Table 1 below.

Table 1. Feedback by Academic Year

Evaluation Item	TOTAL		2015/16	2016/17	2017/18
I am now considering university as an option.	72.8%	%	73.9%	74.8%	72.1%
	15,856	Frequency	4,730	4,556	5,288
The information was provided in an interesting way.	86.4%	%	90.5%	86.8%	86.1%
	16,990	Frequency	3,560	5,413	6,478
I learnt new information from today's visit.	85%	%	86.6%	85.3%	85.0%
	16,660	Frequency	3,399	5,304	6,394

The Residential Activity conducted in 2017/18 was analysed separately and is included in Appendix A.

Summary of Analyses

Pearson's Chi-Square (X^2) analyses were conducted with categorical variables. The results were reported when observed and expected frequencies of nominal data were significantly different ($p > .05$). Any significant correlations (r) between variables are also reported. Paired sample t-tests (t) were conducted in relation to whether there were any differences between students' reported declarations that university would be an option before and after participating in the Outreach activity. One-way ANOVAs (F) were conducted to establish any differences between groups in relation to this change.

We are interested in whether participation in an Outreach activity is related to deciding that university will be an option. There were weak, albeit significant, correlations between whether students found an activity interesting and whether they would choose university as an option ($r = .144$, $N = 18,722$, $p = .000$, 2% effect size). Learning new information was also weakly correlated with choosing university in general ($r = .103$, $N = 18,678$, $p = .000$, 1% effect size).

Raising Aspirations

Notably, we are not able to establish whether participation in the Outreach activity *directly* caused any changes in aspiration, however we are able to draw trends from the data in order to inform our practice.

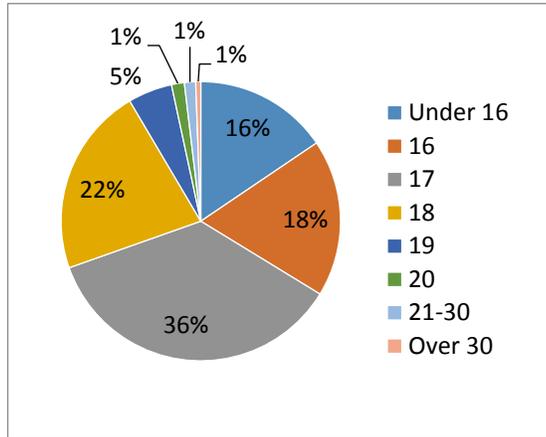
After participating in an Outreach activity, 72.8% (15,886) on average reported that they would now choose university as an option. Participants declared they were more likely to choose university as an option after

participating in an Outreach activity compared with before the activity. A paired *t*-test showed significant differences between choosing university before and after participating in an Outreach activity with a small effect size ($t = 43.45$, $df = 21,630$, $p = .000$, one-tailed, $d = 0.21$).

Age First Encountered Outreach

Evaluation Data was collected from a larger percentage of students aged 17 and younger (69.5%) when they first participated in an Outreach activity.

Age of Participation	Amount	Percentage
Under 16	2785	15.5
16	3264	18.2
17	6427	35.8
18	3930	21.9
19	918	5.1
20	266	1.5
21-30	233	1.3
Over 30	105	.6
Total	17928	100.0
Missing	5247	
Total	23175	



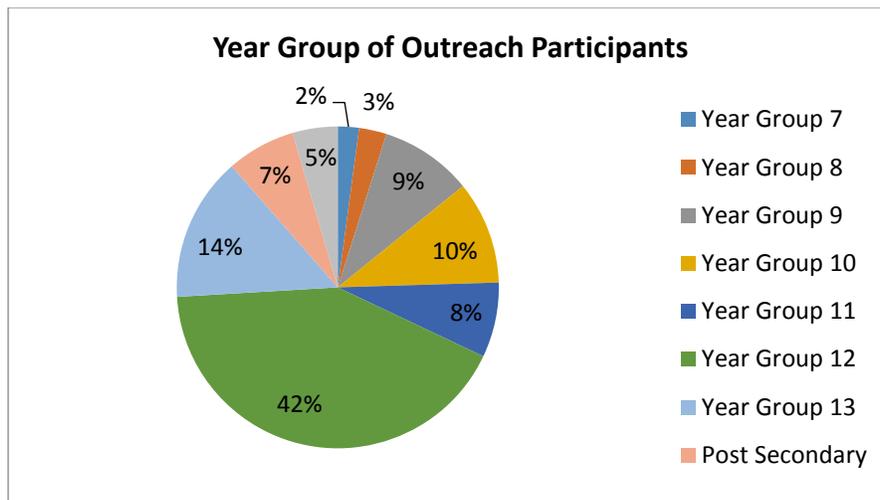
16 and Younger

Students who participated in Outreach when they were aged 16 and under increased whether they would choose university as an option before and after the Outreach activity. [A one-way between-subjects ANOVA revealed a significant effect of age on changing whether participants would choose university as an option before or after the Outreach activity: $F(7, 16,960) = 10.349$, $p = .000$. Employing the LSD post-hoc test, significant differences were found between students who were aged 16 when they first encountered Outreach and aged 17 ($p = .000$), aged 18 ($p = .001$), aged 19 ($p = .000$), and aged 21-30 ($p = .003$).]

Notably, a large percentage (91.6% on average) of students aged 18 and younger declared that they would choose university as an option after participating in an Outreach activity. This percentage declines after reaching age 19 with only 85.3% of mature students (aged 21 and over) stating that they would choose university as an option. There was a significant relationship between choosing university as an option and the age range of a student when they first participated in an Outreach activity: $\chi^2(7, N = 13,769) = 36.06$, $p = .000$, with an association of small strength: $\phi = 0.050$ accounting for 0.25% of the variance.

First Participated Year Group

Students in Year Group 12 predominately provided evaluation from their participation in an Outreach activity (42%, 9738).



Year Groups 8 through 11

Increases in choosing university as an option were apparent with students who first participated in an Outreach activity in Year Groups 8 through 11. By Year Group 12, participants were less likely to experience aspiration-raising value from participation in an Outreach Activity although they were more likely than expected to choose university as an option when participating in Outreach during Year Groups 7 through 12: $\chi^2(9, N = 17,360) = 48.85, p = .000$, with an association of small strength: $\phi = 0.053$ accounting for 0.28% of the variance. Also, students who participated in their first Outreach activity in Year Group 7 were significantly less likely to choose university as an option compared with those students in Year Groups 8, 10 and 11.

Students from Year Groups 12 through to Postsecondary did not seem to change whether they would choose university as an option after participating in an Outreach activity. [A one-way between-subjects ANOVA revealed significant differences between certain year groups on changing whether participants would choose university as an option before or after the Outreach activity: $F(8, 21,550) = 12.45, p = .000$. Employing the LSD post-hoc test, significant differences were found between Year Group 11 and 12 ($p = .000$), 13 ($p = .000$), and Postsecondary ($p = .000$). There were no significant differences between first participated Year Groups 8, 9, 10, or 11 ($p > .05$). Students who first participated in Year Group 7 also on average did not change their aspirations to study at university as much as students from Year Group 8 ($p = .003$), 10 ($p = .001$), and 11 ($p = .011$).]

Activity Type:

On Campus

Activities conducted on one of our HE campuses also demonstrated increased likelihood to choose university as an option, statistically significant when compared with FE campus or School visits: $\chi^2(4, N = 17,360) = 89.12, p = .000$, with an association of small strength: $\phi = 0.072$ accounting for 0.52% of the variance. There were no statistically significant differences between choosing university and which HE campus a student attended: $F(4, 21,626) = 11.54, p = .81$.

The majority of students (51.8%) analysed in this report participated in an Outreach activity at a School, whereas only 29.4% of students participated in an activity held on one of our campuses. Most activities analysed were Generic (59.4%) rather than Subject Specific. The School of Sport and Exercise reached 26.8% of the remaining 40.6% of students who participated in a Subject Specific Outreach activity.

Academic Area	Frequency	Percent	Valid Percent
Art and Design	807	3.5	3.5
Business	1346	5.8	5.9
Collaborative	955	4.1	4.2
Computing	1001	4.3	4.4
Education	275	1.2	1.2
Generic	13670	59.0	59.4
Health and Social Care	484	2.1	2.1
Liberal and Performing Arts	366	1.6	1.6
Media	974	4.2	4.2
Natural Sciences	23	.1	.1
Social Sciences	590	2.5	2.6
Sport and Exercise	2505	10.8	10.9
Total	22996	99.2	100.0
Missing	179	.8	
TOTAL	23175	100.0	

On Campus Activities or Subject Specific

Compared with General HE Information activities, Campus Visits and Subject Specific activities respectively resulted in a greater likelihood of choosing university. A one-way between-subjects ANOVA revealed a significant effect of certain Activity Types on changing whether participants would choose university as an option before or after the Outreach activity: $F(4, 21,626) = 23.342, p = .000$. Employing the LSD post-hoc test, significant differences were found between General HE Information and HE Campus Visit ($p = .000$), as well as between General HE Information and HE Subject Insight ($p = .000$).

Subject Specific activities, Campus Visits, Conferences and Aspiration Days resulted in more than expected students choosing university. A Pearson Chi-Square analysis found the relationship between Activity Type or descriptor and choosing university to be significant $\chi^2(20, N = 21,770) = 243.14, p = .000$, with an association of small strength: $\phi = 0.106$ accounting for 1.12% of the variance].

Subject Specific sessions resulted in significant positive changes in whether students would choose university as an option before or after participating in the activity. A one-way between-subjects ANOVA revealed a significant effect of certain HEI Descriptors on changing whether participants would choose university as an option before or after the Outreach activity: $F(10, 21,630) = 23.887, p = .000$. Employing the LSD post-hoc test, significant differences were found between Aspiration Days and Conferences ($p = .003$), Subject Specific Activity ($p = .000$), HE Information ($p = .000$), Study Skills ($p = .000$), and Enterprise Activity ($p = .000$). Aspiration Days presented the largest evidence in increasing aspirations, not surprising given these days were focussed on raising aspirations mainly amongst Year 9 students.

ANOVA: LSD post-hoc analysis of Aspiration Day on Changing Whether University an Option

(I) HEI Descriptor	(J) HEI Descriptor	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Aspiration Day	Conference	.05567*	.01889	.003	.0186	.0927
	Enterprise Activity	.25091*	.03313	.000	.1860	.3159
	HE Information	.12195*	.01349	.000	.0955	.1484
	Study Skills	.18099*	.01617	.000	.1493	.2127
	Subject Specific	.09210*	.01368	.000	.0653	.1189
	Transition	.15949*	.01807	.000	.1241	.1949
	UCAS	.19232*	.01797	.000	.1571	.2275

*. The mean difference is significant at the 0.05 level.

Subject Specific activities were the most interesting to students with 90.6% (who provided their year groups) finding them interesting on average and 89.3% of students finding Conferences interesting. Conferences are delivered on campus with subject tasters delivered by academic staff. Subject specific activities are delivered by a mixture of the Outreach team and Academics. A greater percentage of students found Aspiration Days interesting in 2018 (80.4%) versus 2017 (75.5%). Additionally HE Information Sessions were thought to be interesting by 94.5% of participants in 2018 versus 85.3% in 2017, with an 87.5% average across the years. These differences in finding the activity interesting by Activity Type were significant: $\chi^2(10, N = 19,667) = 95.42$, $p = .000$, with an association of small strength: $\phi = 0.070$ accounting for 0.49% of the variance.

Additionally, finding an activity interesting and the Activity HEI Descriptor was also significant: $\chi^2(1, N = 19,667) = 470.41$, $p = .000$, with an association of small strength: $\phi = 0.155$ accounting for 2.40% of the variance. From these analyses, the following areas resulted in fewer than expected affirmative responses to whether they found the activity interesting: HE Campus Visits, Aspiration Days, Study Skills and Enterprise Days. Students found HE Subject Insight, Conferences and HE Information Sessions more interesting than would be expected from the data. Results from the data analyses suggest there are opportunities to improve outcomes by incorporating new information into General HE Information and Enterprise Days: $\chi^2(22, N = 19,601) = 535.94$, $p = .000$, with an association of small strength: $\phi = 0.165$ accounting for 2.72% of the variance.

Crosstabulation of Activity Type by Interesting					
HEI Descriptor		Interesting			Total
		No	Not Sure	Yes	
Aspiration Day	Count	25	197	781	1003
	Expected Count	22.8	113.7	866.5	1003.0
	%	2.5%	19.6%	77.9%	100.0%
Assembly Talks	Count	3	8	118	129
	Expected Count	2.9	14.6	111.4	129.0
	%	2.3%	6.2%	91.5%	100.0%
Conference	Count	10	67	643	720
	Expected Count	16.4	81.6	622.0	720.0
	%	1.4%	9.3%	89.3%	100.0%
Enterprise Activity	Count	15	44	163	222
	Expected Count	5.1	25.2	191.8	222.0
	%	6.8%	19.8%	73.4%	100.0%
HE Information	Count	140	777	6408	7325
	Expected Count	166.9	830.2	6327.9	7325.0
	%	1.9%	10.6%	87.5%	100.0%
Study Skills	Count	79	355	1433	1867
	Expected Count	42.5	211.6	1612.9	1867.0
	%	4.2%	19.0%	76.8%	100.0%
Subject Specific	Count	103	472	5530	6105
	Expected Count	139.1	691.9	5274.0	6105.0
	%	1.7%	7.7%	90.6%	100.0%
Transition	Count	43	201	778	1022
	Expected Count	23.3	115.8	882.9	1022.0
	%	4.2%	19.7%	76.1%	100.0%
UCAS	Count	30	105	1110	1245
	Expected Count	28.4	141.1	1075.5	1245.0
	%	2.4%	8.4%	89.2%	100.0%

Study Skills

The Outreach team has recently updated the Study Skills offering and the evidence shows it has been effective in terms of students' perception of learning new information. There is opportunity to improve the sessions in terms of students' perception of how interesting they are. Students' perception of Study Skills sessions have recently declined with 72.6% finding Study Skills interesting in 2018 versus 84.6% in 2017. However, students who participated in Study Skills in 2018 were more likely to declare that they had learned new information than expected (76% versus 69.5% respectively): $X^2(6, N=1,865) = 36.23, p = .000$, with an association of small strength: $\phi = 0.139$ accounting for 1.93% of the variance.

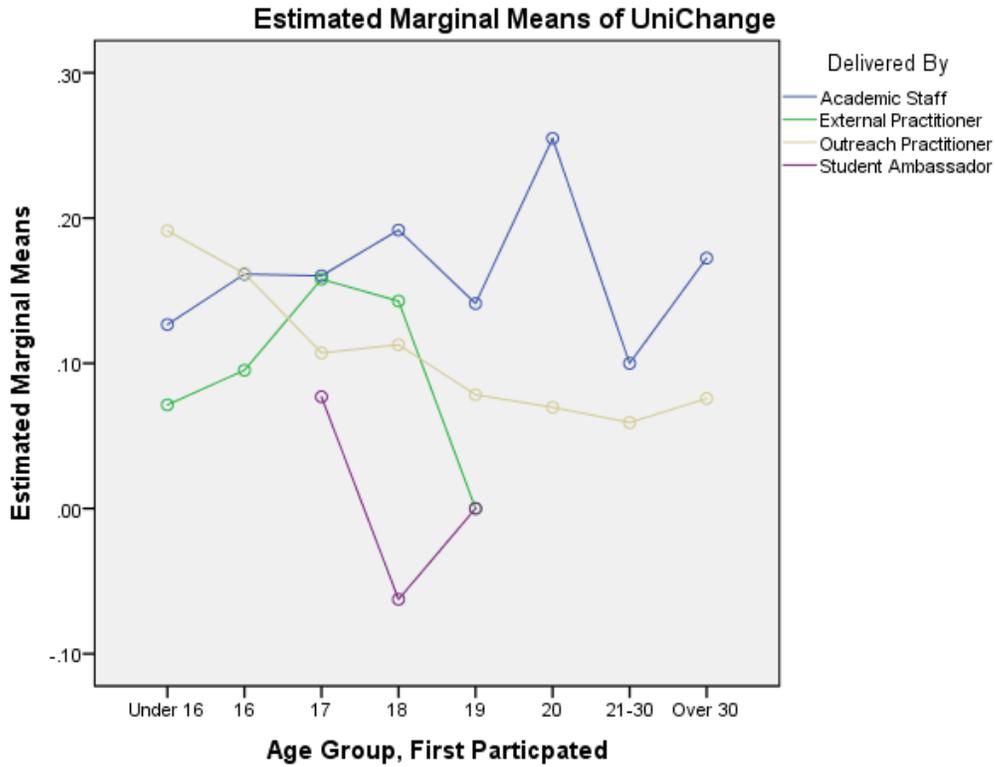
Deliverer

The majority (87%) of Outreach activities evaluated in this report were delivered by trained Outreach practitioners who achieved good results in terms of promoting university study (84% of students) and delivering informative (84% of students) and interesting (86% of students) sessions according to student feedback.

There were significant differences in outcomes based on whether students experienced a session delivered by an Academic or an Outreach Practitioner: $F(3, 21,627) = 5.629, p = .001$. When Academics delivered sessions, students were more likely to positively change whether they would choose university as an option. However, there was no significant difference between who delivered the sessions and whether students would choose university as an option ($p = .096$).

Change in Choosing University by Deliverer. LSD post-hoc from ANOVA

(I) Delivered By	(J) Delivered By	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Academic Staff	External Practitioner	.02285	.04556	.616	-.0664	.1122
	Outreach Practitioner	.03821*	.01013	.000	.0184	.0581
	Student Ambassador	.14775*	.07124	.038	.0081	.2874



Non-estimable means are not plotted

Delivery by Academics also resulted in more students than expected:

- finding the sessions interesting: $X^2(6, N = 19,667) = 26.52, p = .000$, with an association of small strength: $\phi = 0.037$ accounting for 0.14% of the variance; and
- learning new information: $X^2(6, N = 19,601) = 91.77, p = .000$, with an association of small strength: $\phi = 0.068$ accounting for 0.46% of the variance; and

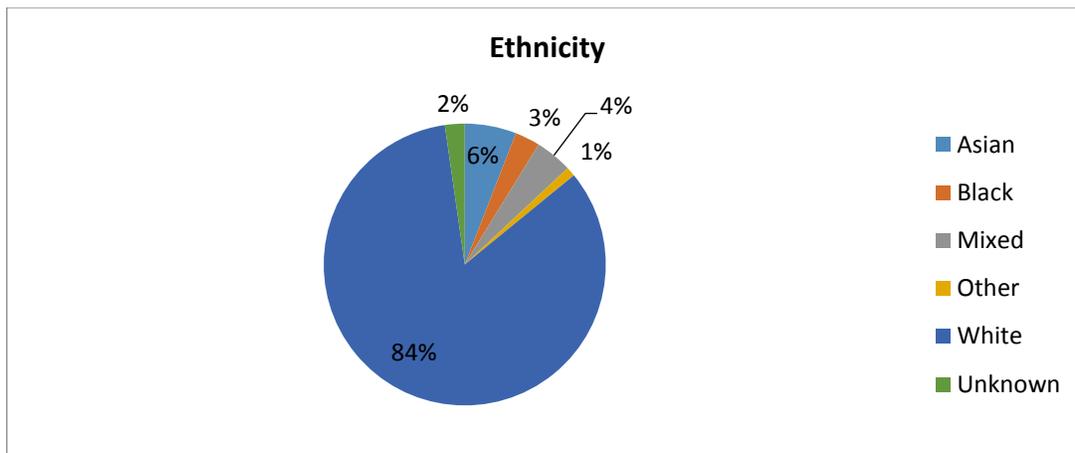
Student Demographics

The following categories represent areas known to have less than expected HE participation rates.

Categories	Frequency	Valid % within Category	Total % of Evaluations
Male	10,220	44.1%	93.5%
BME background	3,265	14.4%	97.7%
Declared disability	1,904	8.5%	96.4%
POLAR4 Quintile 1 & 2	7,945	39.8%	86.1%
First Generation HE	13,446	58%	97.4%
In Care	458	2%	98%

Ethnicity

Ethnicity was collected from 97.7% (22,650) of Outreach evaluations with an average of 14.4% (3,265) BME students seen across the years.



Amongst the students of colour, 6% were Asian (1369), 4.3% (983) were Mixed ethnicity, and 2.9% (665) were Black. The amount of BME students seen increased by 52.5% from 2016/17 to 2017/18 to 15.5% (311 in 2017/18), with particular increases amongst students from Black (4.4% in 2017 versus 2.1% in 2016) and Asian (7.5% in 2017 versus 4.2% in 2016) ethnic backgrounds.

Ethnicity Grouping by Academic Year		Academic Year				Total	
		2015/16	2016/17	2017/18	2018/19		
Asian	Count	253	269	589	142	1253	
	%	3.9%	4.2%	7.5%	7.1%	5.5%	
Black	Count	115	136	343	71	665	
	%	1.8%	2.1%	4.4%	3.5%	2.9%	
Mixed	Count	245	288	373	77	983	
	%	3.8%	4.5%	4.8%	3.8%	4.3%	
Other	Count	61	39	138	10	248	
	%	0.9%	0.6%	1.8%	0.5%	1.1%	
White	Count	5737	5611	6347	1690	19385	
	%	89.1%	87.9%	81.1%	84.5%	85.6%	
Chinese	Count	26	44	35	11	116	
	%	0.4%	0.7%	0.4%	0.5%	0.5%	
Total		Count	6437	6387	7825	2001	22650

There was a slightly higher percentage of BME students than expected who would choose university as an option after participating in an Outreach activity. The relationship between choosing university as an option and being from a BME ethnic group was significant: $\chi^2(1, N = 17008) = 23.19, p = .000$, with an association of small strength: $\phi = 0.037$ accounting for 0.14% of the variance.

Accordingly, a greater amount of Outreach participants from Black, Mixed, and Asian ethnic backgrounds declared that they would choose university as an option after the activity than expected, whereas there were fewer from White or Other ethnic backgrounds who declared this than expected: $\chi^2(5, N = 17,008) = 33.08, p = .000$, with an association of small strength: $\phi = 0.044$ accounting for 0.19% of the variance.

BME Status by Academic Year		Academic Year				Total
		2015/16	2015/16	2015/16	2015/16	
BME	Count	700	776	1478	311	3265
	%	10.9%	12.1%	18.9%	15.5%	14.4%
White	Count	5737	5611	6347	1690	19385
	%	89.1%	87.9%	81.1%	84.5%	85.6%

Gender

More females (53%, 11,460) than males (47%, 10220) provided their gender although 6.5% (1,495) did not declare their gender. Fewer males than would be expected declared that they would choose university as an option after participating in an Outreach activity: $X^2(2, N = 17,360) = 107.96, p = .000$, with an association of small strength: $\phi = 0.079$ accounting for 0.62% of the variance.

Disability

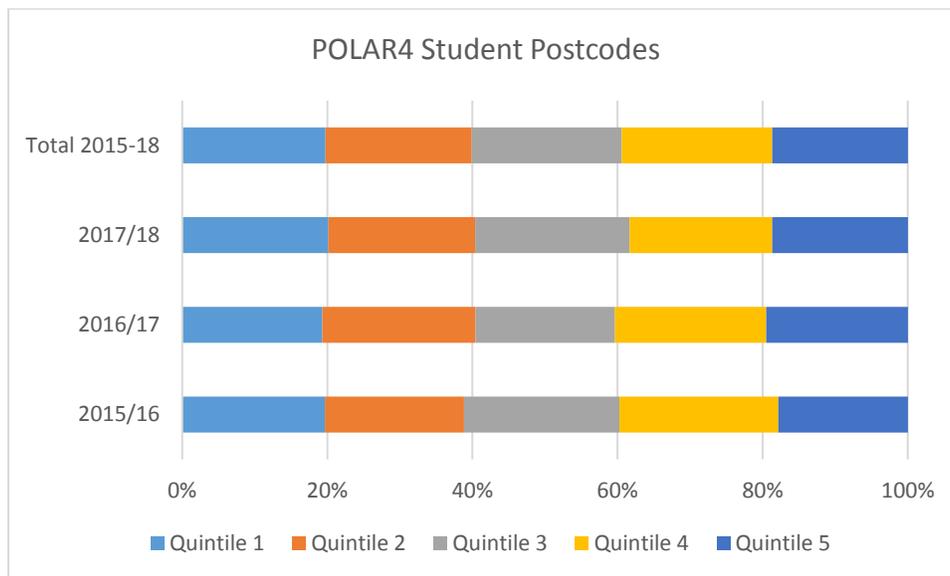
There were 1,904 students (8.5%) who declared a disability on the evaluation forms. Fewer students who declared a disability chose university as an option than expected: $X^2(1, N = 16,801) = 28.88, p = .000$, with an association of small strength: $\phi = -0.041$ accounting for 0.17% of the variance.

First Gen HE

More students who completed evaluations of the Outreach activity stated that they would be the first in their family to attend higher education (60.1%, 13,446). Fewer first generation HE students (who declared that they would be the first in their family to attend HE) chose university as an option than expected: $X^2(2, N = 17,360) = 236.47, p = .000$, with an association of small strength: $\phi = 0.117$ accounting for 1.37% of the variance.

POLAR4

All five of POLAR4 Quintiles were fairly represented across the years. However, Outreach may wish to increase their work with students from Quintiles 1 and 2 in order to positively target students from areas less likely to progress to higher education. Previously, the team did not have access to combined School datasets, but a recent subscription to the Higher Education Access Tracker (HEAT) database has enabled the Outreach management to oversee the strategic direction.



Fewer students from POLAR4 Quintile 1 postcodes were likely to choose university as an option than expected: $X^2(4, N = 15,263) = 30.58, p = .000$, with an association of small strength: $\phi = 0.045$ accounting for 0.20% of the variance.

However, students from POLAR4 Quintile 1 backgrounds raised their aspiration to study at university slightly more than students from POLAR4 Quintile 4. A one-way between-subjects ANOVA revealed a significant effect of POLAR 4 Quintiles on changing whether participants would choose university as an option before or after the Outreach activity: $F(4, 18,794) = 4.812, p = .001$. Employing the LSD post-hoc test revealed a significant Mean Difference = .03, $p = .02$.

Limitations

The information collected for these analyses utilised students' self-reported data, which in itself may contain inaccuracies. This could be strengthened by including behavioural measures in subsequent analyses, such as correlating intention to apply to university with actual enrolments, once students are old enough to attend university. All of the evaluations were conducted directly after a student participated in an Outreach activity, where social desirability bias could limit the verity of responses. Additionally, while only statistically significant results were reported, the effect sizes of many of the findings were small and therefore may not have as much impact on the desired behaviour. A student's intention to enrol in university could be confounded by many factors, particularly considering the age they first consider university as an option. Outreach often encounters younger students for short durations, which provides opportunities for a variety of circumstances to influence their behaviour.

Although the surveyed population had a relatively good response rate (55% of all participants), the validity relies on the suggestion that the large amount of responses would reflect the general average of the participants, reducing response bias. However, the findings are unable to be definitively attributed to the non-responders. The findings may not be externally valid due to variations in contextual circumstances of delivery and the sampled demographic. The Outreach activity varied year to year based on rotating staff members and updated material. Also, the location of delivery may be limit the applicability of the findings to other geographic regions.

Recommendations

Outreach activity and offering could become more strategically focussed by using evidence from the evaluations. For example, Outreach could offer Subject Specific sessions on campus encountering our Academics whenever feasible. Outreach should continue to focus on raising aspirations to study at university in students aged 16 and younger (up to Year Group 11). However, Outreach practitioners could ensure students in Year Groups 12 and above encounter practical sessions to assist with university applications and enrolments (rather than aspiration-raising activity). It could be useful to explore reasons mature students (aged 21 and over) are less likely to choose university as an option in order to create a tailored intervention if required.

There is opportunity to review student feedback from HE Campus Visits, Aspiration Days, Study Skills and Enterprise Days in order to increase students' interest. Additionally, the practitioners could Incorporate new information into General HE Information sessions and Enterprise Days, or audit students' prior knowledge before offering these activities.

As for widening participation into higher education, Outreach activity could be targeted in order to increase the offering amongst the lowest participation neighbourhoods (POLAR4 Quintile 1 postcodes), males, students in care, and disabled students. They could develop a practical session tailored to first generation prospective students. A deeper analysis should be completed in order to examine factors that could increase the likelihood that students from BME backgrounds would choose university as an option.

End of activity evaluations of short term activities are reliant on students' self-reported data and do account for the abundance of variables that may be impacting on their intention to enrol in higher education, particularly considering socio-cultural influences. Evaluation sources could be enhanced by exploring the role of validated psychological constructs (such as academic perseverance or self-efficacy) on students' aspirations or behaviour. The evaluations could be strengthened by triangulating data sources to include feedback from other stakeholders, such as Parents, Teachers and the Delivers (Academics, Student Ambassadors, and/or Outreach Staff).

The next phase of evaluating Outreach activity would be to track students' actual progression into higher education using the results from the Higher Education Access Tracker (dataset available in April). Further analyses will examine multiple student engagements across the cycle in terms of whether students enrol in

university and our university in particular. Granted many students first experience Outreach long before they are old enough to progress to higher education, therefore it is difficult to attribute the enrolment behaviour to the Outreach activity itself. One way of determining to what extent Outreach activities impact students' enrolment or aspirational behaviour would be to develop a quasi-experimental experiment utilising a comparative sample or a counterfactual. This could be achieved by the Outreach team collaborating with academic researchers who are interested in publishing the results from such a study. This type of collaboration would also enable a contribution towards more robust evidence of impact.

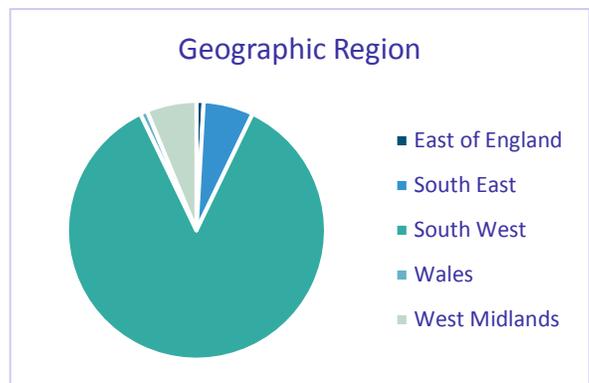
Residential Report (2017/18)

Outreach and Widening Participation Team, University of Gloucestershire

Each year, the Outreach team organises and delivers two separate Residential Events for Year 10 and Year 12 students with the intention of providing an intensive experience on a university campus. The residential activities aim to build higher education (HE) knowledge to enable young people to make an informed decision about their future. Students are provided with an opportunity to learn more about the subjects that are available and the processes required to apply for HE. It is hoped that students will increase their self-confidence in their ability to attend higher education and develop a sense of belonging at university, as well as reduce barriers to participate in higher education.

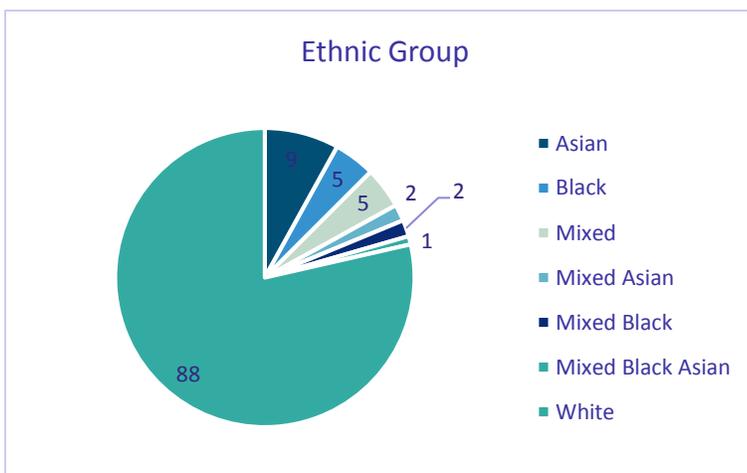
Both residential take place over a four day period, with the first day allowing time and space for students to settle in and socialise with each other and the summer school staff. Student Ambassadors live residentially for the duration of each summer school, supporting the running of the events and providing their own insights into university life and their routes to higher education. Students who attend the Year 10 residential take part in a wider range of academic taster sessions while Year 12 students choose a subject strand to follow. This is so that they can try a range of courses within an Academic School to provide more insight into which course they might choose to study in the future. There are also a range of evening activities and societies offered throughout the residentials to provide a rounded experience of student life.

The Year 10 residential was open to applications from students from partnership schools only, while the Year 12 residential was open to applications from students across the country. Students from low participation neighborhoods (POLAR4 Quintile 1) and BME backgrounds were targeted through direct e-comms and mailings.



Participants

The 2017/18 residentials included 53 Year 10 students mainly aged 14 and 15 (with one 16 year old) and 59 Year 12 students aged between 16 to 18 (with one 20 year old). Only 39.3% or 44 students were male. The majority of participants were from the local South West Area (86%, n = 96) where seven students were from schools located in the West Midlands and South East respectively. All bar one of the participants met one or more of the widening participation characteristics.



Students were from low participation neighborhoods demonstrated by the fact that 61.6% ($n = 43$) of all students were from a POLAR4 Quintile 1 or 2 postcode [60.4% ($n = 32$) of the Year 10 students and 62.7% ($n = 37$) of Year 12 students]. A slightly greater percentage (75.5%, $n = 40$) of Year 10 students had one or more indicators of socio-economic disadvantage (including POLAR4, IMD, EST, and IDACI) than the Year 12 cohort (67.8%, $n = 40$). 26 students (23.2%) from both cohorts declared that they were in receipt of a free school meal.

In terms of the other widening participation characteristics, 8.1% of students (9 students) declared a disability, 91 students (81%) would be first generation higher education students, and 21.4% (24 students) were from a BME background.

Methods and Results

Pre and post surveys were administered to participants in order to ascertain how well the residential activities met the goals. [The surveys used mixed-methods questions and analyses. In order to evaluate how the residential impacted students, a paired-samples *t*-test was conducted after assessing the correlation and distribution scores between the pre and post responses.] There were statistically significant differences between pre and post survey responses to areas including:

- reducing barriers to HE;
- increasing familiarity with applying, and;
- developing greater understanding of HE to make an informed decision about their future

(Please see Appendix A for paired-samples *t*-test statistics.)

A focus group was also conducted at the end of the residential to gather qualitative feedback on the goals of the activity.

"I feel it (university) would give me the most opportunities for future options."

-15 year old boy, Year 10 Residential

Not only did participants feel more informed about university study or lifestyle, but they also developed greater awareness of what to study and do in the future. It is worth noting that participants in the residential increased how informed they felt about university study or lifestyle by one full scale point on average ($t_{108} = 8.47, p = 0.000$). Both year groups demonstrated increased familiarity with applying to higher education in relation to: the courses that are available; how to apply through UCAS; where to find information about applying; and the qualifications and grades needed to get into the course they want. The likelihood of barriers preventing them from studying at university were reduced. In particular, students declared that not being able to afford studying would be on average significantly less likely to be a barrier ($t_{107} = -6.00, p = 0.000$). Keeping up with the work and getting the grades to get in were also less likely to be barrier. They were also less concerned with the influence of their family and friends in terms of putting them off studying at university.

"The university summer school was very informative and interesting. I thought I wouldn't fit in but the staff were very friendly and welcoming. it has helped me build my confidence and has made me really interested in going to university."

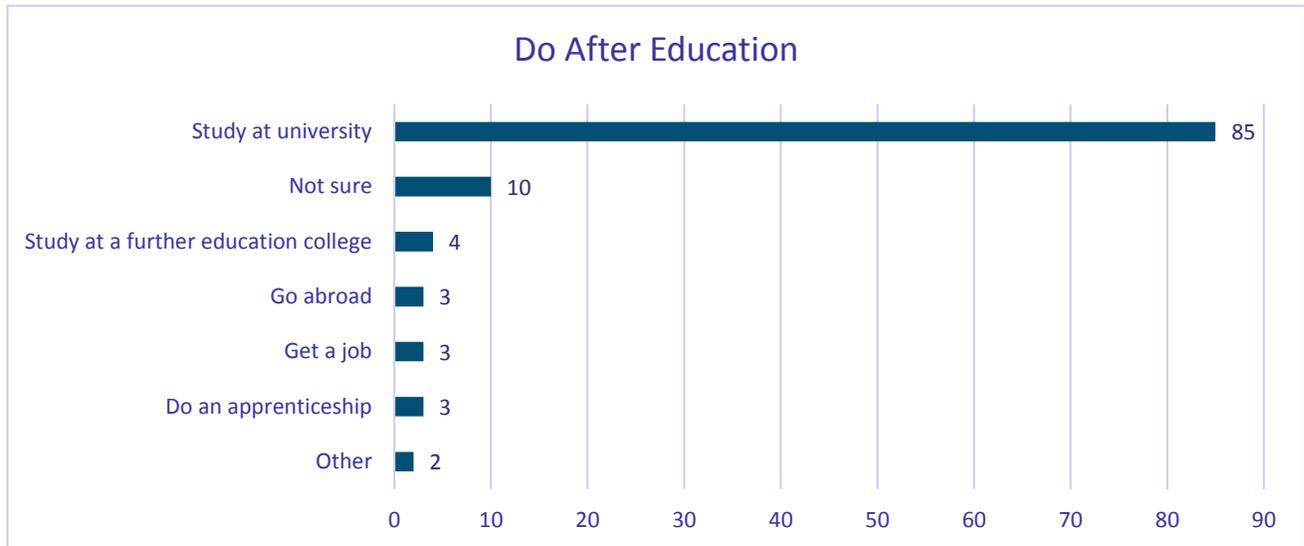
- 15 year old boy, Year 10 Residential

The residential attracted a group who were already considering university as an option evident with 89% of all pre-survey respondents stating the university was likely to be an option (70% of Y10 and 80.4% of Y12 did not exhibit any change in the post-survey). Not surprisingly, there were no significant differences in students developing aspirations to study at university because there wasn't enough variance in the data [as descriptive statistics and scatterplots revealed].

Accordingly, students also did not demonstrate any significant differences in how hard they planned to work to achieve their grades or goals (69.7% of all participants did not alter how hard they planned to work, although it is worth noting that there was a fairly even split between students planning to work harder (11 students) and declaring that they were not planning to work harder (14 total students). These results could be due to developing a more realistic understanding of the pathways and expectations required from their chosen study options. Students did, however, on the whole demonstrate greater confidence in their ability to go to university as well as to fit in.

After the residentials, the majority of participants (94%) were likely to consider university as an option. Their comments indicated that they were motivated to study at university due to:

- Potential opportunity;
- Vocational aspirations, i.e. “to get the job I want”; and
- Because they perceive it to be interesting, fun or exciting experience.



“It was really enjoyable everyone was friendly and enthusiastic. The taster sessions were informative and a positive influence in encouraging me to want to come here.”
 – Year 12 Residential

Only one Y10 respondent indicated that university may not be an option for him because, “I don’t think I’ll fit in”, however he still responded that he would choose UoG as an option. Of the six students who were not sure whether university would be an option for them, three decided to get a job, two decided to do an apprenticeship instead, and one decided to go abroad. Some also indicated that they would do one of those things before starting university, e.g. take a gap year. These results indicate that the students were potentially making informed choices about their own futures.

When asked to comment on the benefits or suggest improvements, there were some common themes across the two residentials. Both year groups equally valued developing an understanding of university life and building friendships. They also mentioned how they gained more information about future options and the value of the organisers and ambassadors. They appreciated developing more course knowledge through the sessions and lectures, although Year 10 students commented that would benefit from more variety in the subject choices and the Year 12 students wanted more choice in which sessions they could attend. In terms of facilities, Year 10 students commented that the food could be improved, whereas some Year 12 students commented that the accommodation could be improved. Students appreciated how the residential promoted growth in their own independence and self-confidence, although Year 10 students would like more freedom to explore or relax and Year 12 students would like a bit more free time. Many across both year groups commented that they would value a longer experience.

“I loved the lectures and activities, specifically the help with personal statements, portfolios and UCAS. I met the most fantastic people, the staff were brilliant, it was fun, educational, and has without a doubt helped me to finalise my decisions about university.”
 – 17 year old girl, Year 12 Residential

Limitations

All reported results are based on students' self-reported data and could be strengthened by triangulating from multiple sources, such as surveying parents/carers or teachers/advisers. The nature of residential activity attracts a population of learners who already possess some motivation to engage with university thereby limiting the ability to improve their interest. The post-evaluation and focus group were conducted directly after participation in the residential, perhaps priming the responses to be more positive. A follow up study would help to determine any persisting effects and whether any elements could be attributed to participation on the residential.

Discussion

Overall, the evidence suggests that the residential activity is beneficial for students who are looking to evaluate their own suitability to attend higher education. University study isn't necessarily the right step for everyone, however it is important that it is available for those who are capable. Whilst participation in a residential may not raise general aspiration to study at university because the general cohort had already decided that university could be an option, it was valuable for students to develop skills and awareness to combat any barriers that could prevent them from achieving their objective. A future residential activity could target capable students who are not necessarily sure whether university would be the right choice for them.

"I like that everyone was helpful and genuinely seemed interested in what we had to say and seemed keen to help us figure out our future. It's helped me set clearer goals and meeting new people has made it more fun and helped to grow my confidence."

- 15 year old girl, Year 10 Residential

Students reported that the information and experience on the residential did help to de-mystify the application process, reduce barriers to studying and increase their self-confidence and suitability to attend university, or to make an informed decision about their future. Ultimately it is the objective of Outreach practitioners to develop more informed individuals who can access the right study choice for them. An immersive and reflective university experience seemed to help facilitate making that choice and to help them learn how to apply. Students valued gaining insight into university life, the opportunity to develop friendships and to sample the various courses and methods of learning available with university study. Their constructive feedback can be utilized for future planning and improvements.

In the future, it will be useful to analyse whether participation in a residential activity had any impact on applying, enrolling, or persisting in higher education. Future studies will look to examine entry rates once students become eligible to study at higher education.

"The residential gave me a scent [sic] of independence and helped developed me as an individual. I got to know what university is really like and I got to get a taster of sessions to help me open my books when it comes to what I want to study when it comes to further education after GCSE's. It was something that I was very fond about coming to although being filled with nerves on whether I would fit in or not but coming here its a lot easier than people think and it was incredible."

- 14 year old boy, Year 10 Residential

Appendix A
Paired Samples t-test Statistics

Aspect	Mean	Std. Deviation	Std. Error Mean	CI- Lower	CI- higher	t	df	Sig. (2-tailed)
Agreement - I am likely to work hard to achieve my grades/goals.	0.07	0.82	0.08	-0.08	0.23	0.93	108	0.355
Agreement - I feel confident about my ability to go to university.	0.32	1.16	0.11	0.10	0.55	2.91	107	0.004*
Agreement - I feel informed about university study or lifestyle.	0.98	1.00	0.10	0.79	1.17	10.25	108	0.000*
Agreement - I feel inspired to learn more about the subjects that I am interested in.	0.08	0.94	0.09	-0.10	0.26	0.91	108	0.363
Agreement - I have enough information to decide what to do after school/college.	0.52	1.22	0.12	0.29	0.76	4.43	106	0.000*
Agreement - I will fit in at university.	0.61	1.40	0.13	0.34	0.87	4.53	108	0.000*
Barriers - Getting the grades to get in.	-0.25	0.95	0.09	-0.43	-0.07	-2.74	107	0.007*
Barriers - I don't know what to do in the future.	-0.29	0.82	0.08	-0.44	-0.13	-3.58	104	0.001*
Barriers - I won't be able to keep up with the work.	-0.17	0.70	0.07	-0.30	-0.03	-2.46	107	0.015*
Barriers - I wouldn't know what to study.	-0.19	0.83	0.08	-0.35	-0.04	-2.45	107	0.016*
Barriers - Moving away from home.	-0.07	0.70	0.07	-0.20	0.07	-0.96	106	0.339
Barriers - My family don't want me to go.	-0.10	0.49	0.05	-0.20	-0.01	-2.15	106	0.034*
Barriers - None of my friends are going.	-0.19	0.60	0.06	-0.31	-0.08	-3.35	107	0.001*
Barriers - Not being able to afford it.	-0.64	1.11	0.11	-0.85	-0.43	-6.00	107	0.000*
Familiarity with applying - How to apply through UCAS	0.64	0.91	0.09	0.46	0.81	7.27	106	0.000*
Familiarity with applying - The courses that are available	0.58	0.68	0.07	0.45	0.71	8.82	108	0.000*
Familiarity with applying - The qualifications and grades needed to get into the course you want	0.25	0.79	0.08	0.09	0.40	3.19	105	0.002*
Familiarity with applying - Where to find information about applying	0.78	0.90	0.09	0.60	0.95	8.88	106	0.000*
Familiarity with Applying: Courses, where to find information, UCAS applications and qualifications or grades needed to apply	2.07	2.56	0.24	1.59	2.56	8.47	108	0.000*

* $p < 0.05$