

Research protocol

K+ RCT

VERSION	DATE	REASON FOR REVISION/NOTES
<i>Any changes to the design to be agreed between the implementation partner(s), evaluator and TASO. Note any agreed changes in the table below.</i>		
2	April 2021	Change of TASO staff – Rain Sherlock now TASO lead on MIOM local evaluations
1 [original]	November 2020	NA
Pre-registration	October 2020	This design has been pre-registered on the Open Science Framework registry and is currently embargoed until TASO chooses to make it public

QA to be completed by Deputy Director, Academic Lead, or another individual nominated by them before project launch.

The QA rating system is based on Evaluation Security tool presented in the TASO Monitoring and Evaluation Framework.¹

QA	Comments	Rating (out of 5)
Design	RCT	5
Sample size	Expecting a sample of ~300 per arm	2
Outcome measure	Primary outcome is actual behaviour	5
Attrition	Expected to be low for primary outcome based on record of tracking historic participants	4
Validity	A key risk to validity is the extent to which participants may take part in other outreach activities	3
Overall		3.8

¹ <https://taso.org.uk/evidence/evaluation/>

1. Summary

Background

TASO has funded King's College London (King's) to participate in a project designed to help us understand how best to evaluate multi-intervention outreach.

Aims

This project will aim to measure the impact of the 'K+' widening participation programme at King's via a randomised controlled trial (RCT).

Intervention

The primary aim of the K+ programme is to encourage progression to more selective HE providers (those with higher entry requirements). The programme is for Year 12 students and comprises: an induction session; e-mentoring; academic experience days; cultural events; careers advice sessions; summer schools; exam skills sessions; and a graduation and celebration event.

Design

The trial will be a two-armed randomised controlled trial. The randomisation ratio will depend on the level of subscription to the trial and programme places will be filled.

Outcome measures

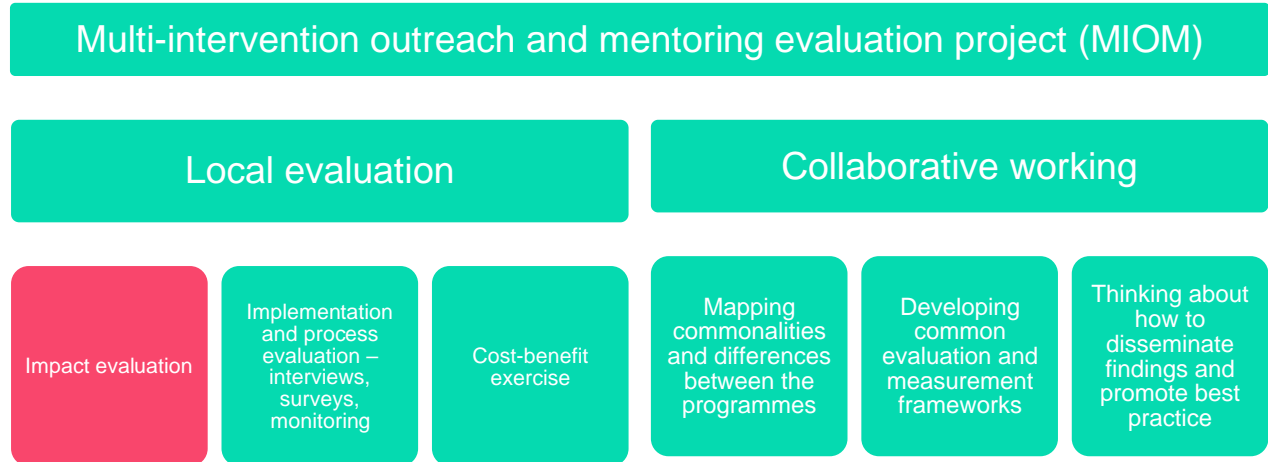
The primary outcome measure is whether a student progresses to a selective HE provider. Other outcome measures include whether a student progresses to HE, their belief they can succeed in HE, their interest in HE/selective HE, their self-efficacy and social capital.

Analyses

We will use multiple regression analysis to examine whether allocation to treatment has a positive impact on the dependent variables specified when controlling for a vector of demographic covariates.

2. Background

This RCT is part of the TASO-funded project to develop our understanding of multi-intervention outreach and mentoring (MIOM) – that is, programmes which combine multiple outreach strategies into sustained support for learners over a course of months or years. The trial forms one part of a broader evaluation, as shown in the figure below. The parts of the figure which are not highlighted are covered in other planning documents.



The key stakeholders involved in the trial are outlined in the table below.

Organisation	Name	Role and responsibilities
King's College London	Jimmy Pickering	<ul style="list-style-type: none"> Widening Participation Manager (Post-16) Overall lead for King's involvement in the MIOM project.
King's College London	Yasarah Qureshi	<ul style="list-style-type: none"> Randomised Control Trial Coordinator TASO-funded role to support the King's involvement in the MIOM project (0.8FTE). Coordination of all aspects of the trial from the K+ side
TASO	Dr Eliza Kozman	<ul style="list-style-type: none"> Deputy Director of Research Oversight of design and implementation of trial from TASO side
TASO	Rain Sherlock	<ul style="list-style-type: none"> Evaluation Manager Lead on the MIOM local impact evaluations

3. Aims

Research Aim: This project will explore the efficacy of multi-intervention outreach as a widening participation activity by measuring the efficacy of the K+ programme at King's College London via a randomised controlled trial (RCT).

Primary research question: Does participation in the in the K+ programme significantly increase subsequent enrolment at selective universities for its participants?

The aim of widening participation is to increase higher education (HE) attendance among students from under-represented groups, such as those from areas with lower than average progression rates to HE or individuals who would be first in their family to attend. One approach is the use of multi-intervention outreach which combines multiple outreach activities into a sustained programme of support for learners. These programmes typically include components such as mentoring, summer schools, campus visits, subject taster sessions, and information, advice and guidance (IAG) workshops.

A recent literature review into the evidence base of UK widening participation activities has identified multi-intervention outreach as among one of the most common approaches used by HE providers (Education Policy Institute, 2019). While the review found evidence that these programmes are associated with positive outcomes for participants (see for example Chilosi et al, 2010; Emmerson et al, 2005), the literature has two key limitations. First, most of the existing evidence is focused on whether these programmes impact student aspirations/attitudes rather than long-term behavioural outcomes such as HE attendance. Second, due to the methodologies used, the current literature provides correlational and contextual evidence on the efficacy of these programmes, particularly in a UK context.

Multi-intervention outreach is a resource-intensive activity and requires significant investment of time and effort from HE providers and students alike. Therefore, there is a need to establish clear causal evidence on the efficacy of this approach. To this end, we plan to measure the efficacy of the K+ programme at King's College London via a RCT. This approach will provide us with high-quality robust causal evidence on the impact of the programme on participant outcomes. The K+ programme is a good example of an established multi-intervention outreach programme which is run at King's. The primary aim of this programme is to encourage progression to more selective HE providers (i.e. those with higher entry requirements, sometimes called research-intensive universities). Therefore, we propose to focus on this as our outcome measure to determine how effective this programme is in meeting its aim.

The hypotheses for this study are:

- H1: The K+ programme at King's increases progression to selective higher education providers among participants.
- H2: The K+ programme at King's increases progression to higher education among participants.
- H3: The K+ programme leads participants to strengthen their belief that they can 'belong' in a higher education setting.

- H4: The K+ programme increases interest in attending selective higher education providers among participants.
- H5: The K+ programme increases interest in attending higher education among participants.
- H6: The K+ programme increases self-reported self-efficacy among participants.
- H7: The K+ programme increases self-reported social capital among participants.

4. Intervention

The intervention for evaluation is the K+ programme run by King's College London. This programme is for Year 12 student and comprises:

- An induction session
- E-mentoring
- Academic experience days
- Cultural events
- Careers advice sessions
- Summer schools
- Exam skills sessions
- A graduation and celebration event

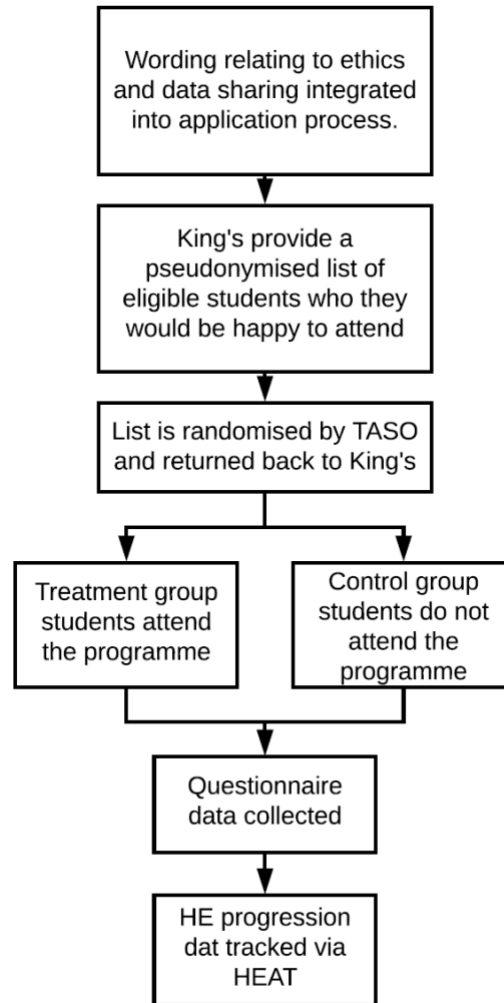
A timeline of the programme is given as an Annex in Section 15. A theory of change for this programme is given as an Annex in Section 16.

5. Design

We will run a randomised controlled trial (RCT) to determine the impact of the K+ programme. This programme runs every year and we propose to embed the RCT into the 2020/21 cycle, recruitment for which opens in September 2020 with a launch in December 2020. Based on historical data, the programme will be oversubscribed (i.e. the level of demand to attend will exceed the number of available places). Therefore, we will randomly allocate places to students from the pool of eligible applicants. In other words, we are not artificially limiting learners' access to the programme; rather, we are leveraging the existing over-subscription to test the impact of this activity. This approach is often seen as the fairest and least biased approach to selecting participants under resource constraints (Jensen, P. H. 2020).

The RCT will only include eligible applicants to the K+ programme. First, Year 12 students will apply for a place on the programme and their application will be screened by King's WP staff for eligibility (see Section 7 for more detail). Once a pool of eligible students has been identified, these individuals will be randomly allocated into two groups: those who get a place on the programme (the 'treatment' group) and those who do not because there is not capacity for everyone to attend (the 'control' group). A flow diagram showing the design of the trial is given below. The size of the two groups will depend on the level of oversubscription but all of the K+ programme places will be filled.

The randomised design allows us to compare the outcomes of students in the treatment group with those of students in the control group so we can provide a robust causal estimate of the effect of the programme.



6. Outcome measures

The outcome measures for this trial have been selected based on the Theory of Change presented in the Annex in Section 16. Given that the main aim of the programme is to increase progression to selective universities, this guides our choice of primary outcome measure. We propose to define 'selective universities' as 'top third' universities i.e., the top third universities in terms of entry requirements, as this is a commonly used metric for more selective HE providers and a list of these providers is compiled and published

by the Department for Education.² We also propose to use the average entry tariff of the higher education provider (HEP) entered as a measure of the selectivity of the student destination as an alternate way of assessing whether the intervention has influenced progression to more selective universities.

The secondary outcomes relate to attitudes which map onto this outcome and other survey items which relate to other outcomes in our Theory of Change. These were identified as the key outcomes of interest by the K+ delivery team, and are also the measures which they current use as part of existing evaluations of the programme:

- Aspirations to attend a selective university
- A sense of belonging in HE
- Academic self-efficacy
- General self-efficacy
- Social capital

The ‘other’ outcomes focus on overall HE entry and aspirations and, although we do not expect to see movement on these outcomes given the Theory of Change, we will include this analysis to contextualise our findings. A full list of survey items is given in the Annex in Section 17.

Outcome measure	Data to be collected	Point of collection
PRIMARY: Progression to selective university	HEP entered by student, to be coded and analysed in two ways: <ol style="list-style-type: none"> 1. Whether a student progresses to a top third HEP (binary: yes/no) 2. Average entry tariff of HEP entered 	Via HESA data which be collected via the HEAT tracking service or by matching student data with the HESA/NPD data sets directly. This data will become available in Spring 2023. See more in Section 9.
SECONDARY: Selective university aspirations	Scores on survey questions to measure a student’s interest in attending a top-third HEP This is measured in two ways: <ol style="list-style-type: none"> 1. A survey item which directly asks students’ attitudes about their attitudes. 2. An experimental survey item which seeks to indirectly measure these aspirations by presenting students with a range of top-third universities and 	Surveys implemented after the programme has taken place.

² See [this Department for Education document](#).

	asking which they would consider applying to.	
SECONDARY: Belonging in HE	Scores on a survey scale which measures a student's belief that they could belong in a HE setting.	
SECONDARY: Academic self-efficacy	Scores on a survey item which measures a student's academic self-efficacy.	
SECONDARY: General self-efficacy	Scores on a survey scale which measures a student's general self-efficacy.	
SECONDARY: Social capital	Scores on a survey scale which measures a student's social capital.	
OTHER: HE progression	Whether a student progresses to HE (binary: yes/no)	Via HESA data which be collected via the HEAT tracking service or by matching student data with the HESA/NPD data sets directly. This data will become available in Spring 2023. See more in Section 9.
OTHER: HE aspirations	Scores on a survey item which measures a student's interest in attending HE	Surveys implemented after the programme has taken place.

7. Sample selection

Participants will be applicants to the K+ programme. Therefore, the inclusion criteria for this research are simply the eligibility criteria for the programme. These are that students must:

- Be in Year 12
- Be attending a non-selective state school in Greater London or Essex
- Not have parent(s) or carer(s) who have studied at university in the UK or abroad
- Be from the bottom two least advantaged quintiles on at least two of the following metrics: ACORN, POLAR and IMD

- Meet the GCSE requirements (5 x Grade 6 and grade 4 in English and Maths)
- Meet the A-level subject requirements are as follows:
 - Dentistry: Students must be studying both Chemistry and Biology
 - Medicine: Students must be studying both Chemistry and Biology
 - Maths & Computer Science: Students must be studying Maths
 - Sciences: Students must be studying one of Biology or Chemistry

Eligibility screening will be done by university staff who are running the programme, prior to randomisation.

Sample size will depend on the number of eligible applicants to the programme. Based on historical data, the programme will be oversubscribed (i.e., the level of demand to attend will exceed the number of available places). We expect around 750 applications for 360 places. There are also a number of places per strand which are reserved for students with certain characteristics; depending on the level of interest from these groups, we may need to remove from the randomised sample, see more detail in Section 8 below.

8. Randomisation

Randomisation will be conducted in R in code which will be co-developed by TASO and K+ colleagues. Within each over-subscribed subject strand, places will be randomly allocated to applicants with that strand as their first choice. There are two constraints on the randomisation which respond to strategic priorities of the K+ programme:

- At least 5 places per strand will be allocated to students who meet one of the K+ priority group criteria (see Section 7).
- At least 5 places per strand will be allocated to students from schools in Essex (as this is a growth area for K+).

If the number of applicants from the priority groups and from Essex is high enough, the randomisation will include these students but make sure that the target places are filled on each strand. If the number of applications from either group is lower than the total places on offer, then that group will be excluded from the randomisation.

The randomisation will not be blinded as individuals will be aware of whether they have been offered a programme place or not.

9. Data collection

Data to be collected

We will collect demographic information about participants through their application to the programme. This information will be used as part of the randomisation process (described above) and later in our analysis to take into account the effect of demographic differences between the treatment and control group.

King’s will track the students over time using the Higher Education Access Tracker (HEAT).³ The HEAT tracking will allow us to understand whether and where participants enter HE; these data will form part of the outcome measures for our project.

All K+ applicants will be invited to answer an online questionnaire when applying for a place on the programme. These responses will be used as baseline measure of attitudes and aspirations relating to higher education. We will also invite participants in both the treatment and control groups to answer questionnaires at later stages in the trial, after the programme has started, so we can examine any difference in outcomes between the two groups. Details of the range of instruments we plan to use are given in the Annex in Section 17.

Data item	Use	Timeframe	Collection method
Sex	Balance checks Covariates for analysis	Application to K+ (Autumn term 2020)	Via application process (self-report)
Family history of HE			
FSM eligibility			
POLAR quintile			
IMD quintile			
ACORN quintile			
KS4 grades – count of total A/A*/7/8/9/Distinctions			
KS4 grades – a count of total B/A/A*/6/7/8/9/Distinctions			
Disability status			
Ethnicity			
School name and location			
Experience of children’s social care			

³ See [here](#) for more information on HEAT.

Whether from an underrepresented group (Gypsy Roma, Traveller Communities, refugees, children of military families).			
Survey scores on all items listed in Section 17			
Survey scores on all items listed in Section 17	Outcome data	Surveys run in the 2020-21 and 2021-22 academic years, see Section 10,	Email surveys
HE entry data (whether and where a participant enters HE)	Outcome data	Spring 2023	Higher Education Statistics Agency (HESA) data accessed via HEAT

Data protection

Data will be saved on King's servers and King's password protected laptops and protected in-line with King's data protection policies. For the purpose of this evaluation students' names will be stripped out of the data as soon as possible and replaced with non-identifiable IDs instead. Access to individual files and folders will be on a by-permission basis only and limited to personnel with a clear need to access the data.

10. Procedure

A high-level project timeline is given in the table below.

Timeframe	Action
June-October 2020	Research design developed Ethical approval gained Data sharing arrangements made
September 2020	K+ recruitment starts
November 2020	K+ recruitment closes Randomisation of sample into treatment and control groups
December 2020	K+ launches
2020/21 AY	K+ runs
October 2021	Analysis of outcome data from milestone surveys Analysis of outcome data from qualitative interviews/focus groups

2021/22 AY	K+ runs
October 2022	Analysis of outcome data from milestone surveys Analysis of outcome data from qualitative interviews/focus groups
January 2022	Main HE application deadline for K+ cohort in trial
Spring 2023	HESA data on HE progression becomes available
September 2023	Final report complete

11. Power calculations

We make a number of assumptions to develop a baseline estimate of our primary outcome measure for power calculations:

- ~90% of K+ participants go to a Sutton Trust 30 institution (ST 30) based on existing monitoring data provided by the K+ team.⁴
- TASO uses 'top third' as a measure of selectivity across its evaluation activity, so we need to convert the ST 30 statistic for the purpose of our power calculation.
- To do this we note that:
 - a. 50 HEPs are top third HEPs
 - b. 30 of these are the ST 30
- **So, we assume that roughly 95% of K+ students go to a top-third HEP (as a rough estimate)**
- For context, using the most recent Department for Education destination data,⁵ we can see that in state-funded London schools/colleges:
 - 71% of the level 3 cohort went on to HE
 - 25% went to a top-third HEP
- This implies that among those who go to HE:
 - ~35% go to a top-third HEP
- However, we note that those learners who apply to K+ will likely have a much higher baseline level of progression to HE than the general population, therefore the rate of top third progression in the control group is likely to be much higher.

We further assume:

- We are able to track 95% of participant HE programmes outcomes (based on previous experience that King's have very high rates of tracking through HEAT).

⁴ The Sutton Trust 30 is a list of selective universities compiled by the Sutton Trust. For more information see Montacute, R. (2018). Access to advantage: The influence of schools and place on admissions to top universities.

⁵ See <https://www.gov.uk/government/collections/statistics-destinations>

- Significance level: 0.05
- Power: 0.8

Based on these assumptions, we present the following power calculations for a range of possible sample sizes.

Sample size	Size of treatment group	Size of control group	MDES
740	320	320	Cohen's h=0.23; top third progression in the control group would need to be lower than <u>88%</u> to be able to detect a statistically significant difference in outcomes between the treatment/control groups.
520	320	200	Cohen's h=0.26; top third progression in the control group would need to be lower than <u>88%</u> to be able to detect a statistically significant difference in outcomes between the treatment/control groups.
420	320	100	Cohen's h=0.33; top third progression in the control group would need to be lower than <u>86%</u> to be able to detect a statistically significant difference in outcomes between the treatment/control groups.

12. Analytical strategy

Our primary outcome measure is binary and will be analysed using binary logistic regression. Our secondary (and other) outcomes are a mixture of binary and continuous which will be analysed using logistic regression or OLS regression as appropriate.

For logistic regression our model will be:

$$Y_i \sim \text{bernoilli}(p_i); \text{logit}(p_i) = \beta_0 + \beta_1 T_i + \beta_2 X_i + \beta_3 S_j$$

Where the function *logit* is defined as the log-odds ratio

$$\text{logit}(p) = \log\left(\frac{p}{1-p}\right)$$

Where:

- Y_i is a binary outcome for participant i
- p_i is the probability of that outcome occurring
- T_i is a treatment indicator, set to 1 for participants in the treatment group and 0 for those in the control group
- X_i is a vector of demographic covariates (as listed in Section 9).
- S_j is a term which represents school fixed effects

For OLS regression our model will be:

$$Y_i = \beta_0 + \beta_1 T_i + \beta_2 X_i + \beta_3 S_j + \epsilon_i$$

Where the terms have the same meaning as specified above but:

- Y_i is a continuous outcome for participant i
- ϵ_i is a robust error term

Additional analysis

We will match baseline and outcome data to records which show whether students attended K+ activities. We will use this matched dataset to explore whether attendance at activities mediates any effect on their outcomes, to accompany our intention to treat analysis.

TASO is currently exploring to what extent it will be possible to also collect information on what other outreach activities individuals have taken part in (aside from the K+ programme). If it is possible to collect such data, we will also seek to take this into account in our analysis, and a further plan will be developed on this analysis and published as an addendum to this protocol.

As exploratory analysis, we will explore the effect of the programme by student characteristics (including females versus males) by including an interaction of the characteristics with the treatment term in the model specified above.

Cost-benefit analysis

K+ colleagues will also collect data to provide an estimate of the cost of the intervention and these data will be used to conduct cost-benefit analysis. The procedure for this analysis will be developed over the course of the trial. This analysis will help us understand the benefit to participants per unit of expenditure (taking into account monetary and other costs).

Outliers and missing data

Outliers will be defined via visual and statistical examination of the outcome data by the research team. If outliers are identified and they substantively change the outcome of the trial, analysis will be presented both including and excluding these data points.

If there is missing data, we will explore the extent and patterns of missingness by student characteristics. We will explore various means of handling this missing data depending on the nature of the missingness (e.g., last value carried forward, mean

imputation, multiple imputation). Where we exploit such methods, analysis will be conducted on both the raw data, and the data with imputed values as a robustness check.

13. Ethical considerations

Full ethical approval for this project was gained from the SSHL RESC (Social Science, Humanities and Law Research Ethics Subcommittee) at King's College London.

14. Risks

Part of evaluation	Risk	Mitigation strategy	Risk owner
Participant recruitment	Applications to K+ are lower than expected meaning it is not possible to conduct a randomisation as there is no oversubscription.	If certain subjects are undersubscribed they will be removed from the trial.	TASO
Data collection	Low response rate to survey data collection and/or differential attrition in treatment/control.	TASO has funded an RA to help facilitate data collection.	King's

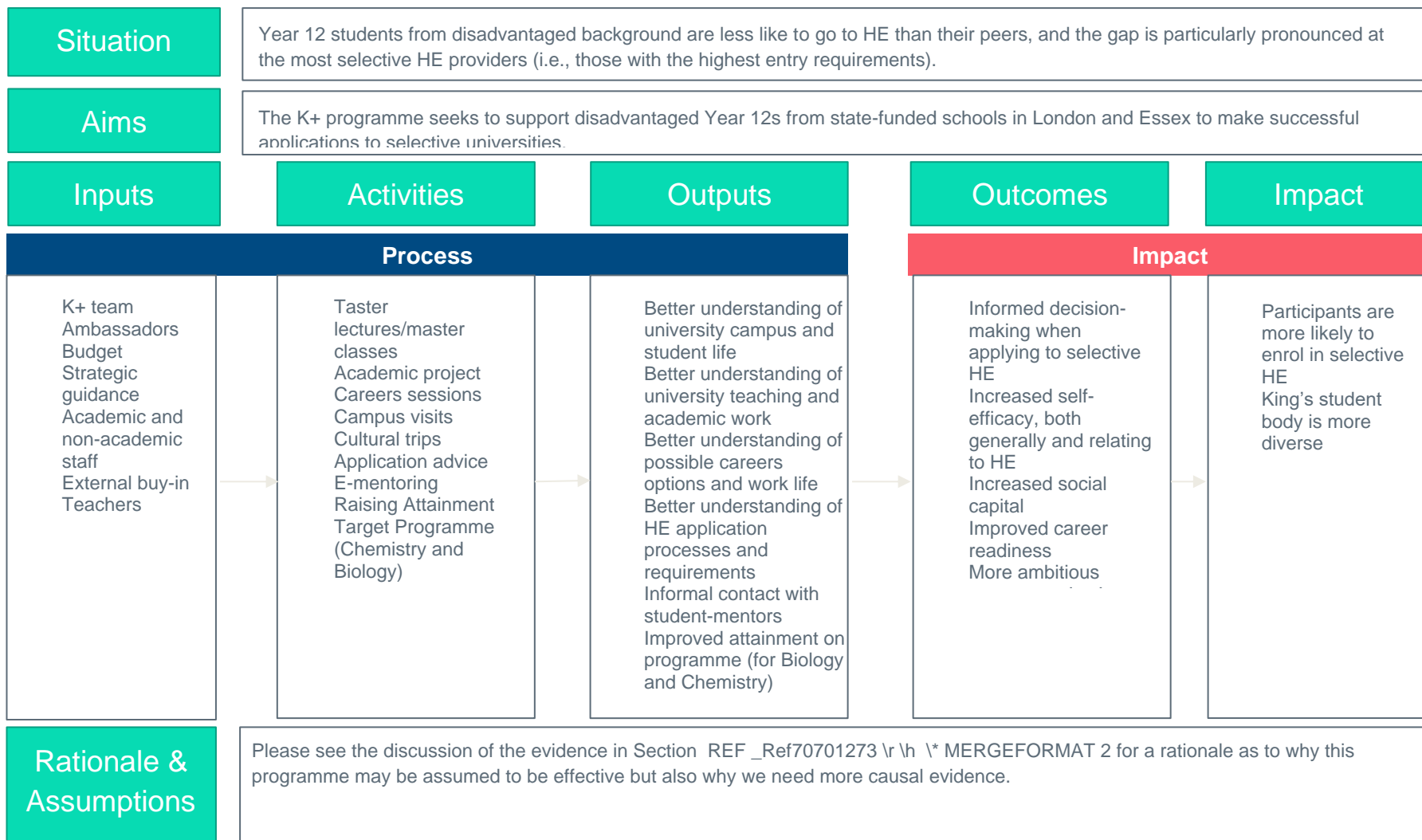
15. References

- Chilosi, D., Noble, M., Broadhead, P., & Wilkinson, M. (2010). Measuring the effect of Aimhigher on schooling attainment and higher education applications and entries. *Journal of Further and Higher Education*, 34(1), 1–10
- Emmerson, C., Frayne, C., McNally, S., & Silva, O. (2005). Evaluation of Aimhigher: Excellence Challenge. The early impact of Aimhigher: Excellence Challenge on pre-16 outcomes: An economic evaluation. DfES Publications
- Jensen, P. H. (2020). Experiments and evaluation of public policies: Methods, implementation, and challenges. *Australian Journal of Public Administration*, 79(2), 259-268.
- Schwarzer, R., & Jerusalem, M. (1995). Generalized Self-Efficacy Scale. In J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35-37). Windsor, England: NFER-NELSON.
- Williams, D. (2006). On and off the'Net: Scales for social capital in an online era. *Journal of computer-mediated communication*, 11(2), 593-628.

16. Annex: K+ timetable

MONTH	EVENT DELIVERY (YEAR 1)	EVENT DELIVERY (YEAR 2)	ADMISSIONS	COMMUNICATIONS
JANUARY	'K+ UniLife' days Academic day 1		Admissions Meeting	Year 12 K+ update
FEBRUARY	Culture days Raising Attainment		Admissions Meeting	Year 12 K+ update Year 13 K+ update
MARCH	Careers days Raising Attainment	Preparing for Uni evening	Admissions Meeting	Recruit for Spotlight - students
APRIL	Raising Attainment		Admissions Meeting	Year 12 and 13 good luck Year 13 graduation date
MAY			Admissions Meeting	
JUNE	Academic day 2			Year 12 update
JULY	Spotlight (1)	Graduation		Spotlight & Assignment reminder
AUGUST	Spotlight (2)		Clearing and Confirmation	Spotlight & Assignment reminder
SEPTEMBER		K+ Re-launch (2)		Year 13 update
OCTOBER	Raising Attainment	K+ re-launch event		Welcome K+ King's students
NOVEMBER	Raising Attainment			Year 12 K+ update & Year 13
DECEMBER	K+ Inductions Raising Attainment	Staying on track	Admissions Meeting	Year 12 K+ update

17. Annex: Theory of Change



18. Annex: Survey items

Link to outcome measure (see Section 6)	Question	Response options
OTHER: HE aspirations	How likely are you to apply to university?	7-point Likert scale from Extremely likely to Extremely unlikely
SECONDARY: Academic self-efficacy	If you apply, how likely do you think it is that you'll get into your first-choice university?	7-point Likert scale from Extremely likely to Extremely unlikely
SECONDARY: Belonging in HE	How much do you agree with the following: "University is for people like me"?	5-point Likert scale from Strongly agree to Strongly disagree
SECONDARY: Selective university aspirations (experimental measure)	<p>Which of these universities would you consider applying to?</p> <p><i>Tick the box for each you would consider applying to</i></p> <ul style="list-style-type: none"> ● Cardiff University ● UCL (University College London) ● King's College London ● London School of Economics and Political Science ● Queen Mary University of London ● St. George's, University of London ● Newcastle University ● University of Cambridge ● Queen's University Belfast ● University of Exeter ● The University of Birmingham ● University of Leeds ● The University of Edinburgh 	<p>All the HEPs on the list are selective. The measure will be a sum of the number of boxes ticked.</p> <p>A higher score will imply that participants are open to considering a wider range of selective universities, including those outside London.</p>

	<ul style="list-style-type: none"> ● University of Oxford ● The University of Manchester ● University of Southampton ● The University of Nottingham 	
SECONDARY: Selective university aspirations	<p>Some universities have higher requirements than others, meaning students need better grades to get in. These universities are sometimes called ‘top universities’ or ‘selective universities’.</p> <p>How likely are you to apply a ‘top university’?</p>	7-point Likert scale from Extremely likely to Extremely unlikely
SECONDARY: General self-efficacy	<p>Self-reported General Self-Efficacy: Schwarzer & Jerusalem (1995)</p> <ul style="list-style-type: none"> a) I can always manage to solve difficult problems if I try hard enough. b) If someone opposes me, I can find the means and ways to get what I want. c) It is easy for me to stick to my aims and accomplish goals. d) I am confident that I could deal efficiently with unexpected events e) Thanks to my resourcefulness, I know how to handle unforeseen situations. f) I can solve most problems if I invest the necessary effort. g) I can remain calm when facing difficulties because I can rely on my coping abilities. h) When I am confronted with a problem, I can usually find several solutions. i) If I am in trouble, I can usually think of a solution. j) I can usually handle whatever comes my way. 	<p>All questions are rated on a 4-point Likert scale (1=Not at all to 4= Exactly true)</p> <p>Question scores then summed</p>
SECONDARY: Social capital	<p>Bonding/Bridging Social Capital: Williams (2006) (wording adapted to make relevant to context of learners)</p> <ul style="list-style-type: none"> a) There is someone I can turn to for advice about making very important decisions. 	All questions measured on a 5-point Likert scale

	<ul style="list-style-type: none"> b) I feel that there is no one I can share my most private worries and fears with. c) There are several people I trust to help solve my problems. d) Interacting with other people makes me interested in things that happen outside of my local area. e) Interacting with other people make me want to try new things. f) Interacting with other people make me feel like a part of a larger community g) Interacting with other people makes me feel connected to the bigger picture h) I am willing to spend time to support activities in my local community i) I come in contact with new people all the time 	<p>(1=strongly agree to 5=strongly disagree)</p> <p>Question scores then summed</p>
--	---	---