

# Research protocol

## Empowerment 360

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*This protocol has been developed by the University of East London using resources, templates provided by TASO. The contents of the protocol do not necessarily reflect TASO's views or position.*

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|----------------|--------------|---------------------------|
| 1.1            |              |                           |
| 1.0 [original] | October 2023 |                           |

## 1. Summary

### *Background*

The University of East London (UEL) plans to evaluate the impact of Empowerment 360, a staff- and student-led project to enable students, especially those with a history of childhood adversity, to flourish and succeed.

### *Aims*

To evaluate the impact of Empowerment 360 on student continuation and attainment at the UEL, and to test the Theory of Change for this intervention. The evaluation aims to achieve a Type 2 evidence standard ('empirical enquiry') and will focus on the intervention operating in the 2022/23 and 2023/24 academic years.

### *Intervention*

Empowerment 360 encompasses interventions with staff; initiatives led by student interns; and a series of physical theatre and storytelling workshops, open to all students and led by trained student facilitators.

### *Design*

The evaluation is a mixed-methods, observational study. Quantitative aspects will use repeated cross-sections of primary outcome measures and longitudinal surveys. Interviews with staff participants and student interns will be used to triangulate the quantitative findings and to explore the process of change.

### *Outcome measures*

- Primary: Student continuation (a dichotomous categorical variable), student attainment (aggregate degree mark as a continuous variable)
- Secondary: Staff ARTIC scale (10-item version for educational settings), student resilience (10-item version of Connor-Davidson Resilience Scale), student sense of belonging (TASO ASQ/ WP questionnaire scale).

### *Analyses*

Primary research questions will be addressed by two univariate analyses of continuation and attainment by level of staff participation within a School (academic division) and time-point (2021/22 versus 2023/24). Secondary analyses will involve paired-samples *t*-tests comparing pre-intervention and post-intervention scores of staff participants (ARTIC scale) and student participants (Connor-Davidson resilience scale and ASQ/ WP questionnaire sense of belonging scale).

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## 2. Background

Previous research has revealed high rates of childhood adversity amongst first-year undergraduates at the University of East London (UEL), with adverse consequences for students' wellbeing and prospective confidence that they would complete their degrees (Davies et al., 2022a, 2022b). This evidence was the initial impetus for Empowerment 360: a multifaceted project to empower UEL students, and especially those who have experienced early adversity, to flourish and succeed. Empowerment 360 encompasses interventions with current students, alongside training and support for staff to foster a trauma-informed institutional culture. The project is funded through UEL's Access and Participation Plan (APP).

An extensive literature exists on the application of 'trauma-informed practice' or 'trauma-informed care' in various healthcare and human services contexts (Hanson & Lang, 2016; Scottish Government, 2021; Substance Abuse and Mental Health Services Administration, 2014; Sweeney et al., 2016), and to a more limited extent in schools (Atallah et al., 2019; Cole et al., 2005) and Higher Education institutions (Henshaw, 2022). Trauma-informed approaches have been defined as follows:

*'A program, organization, or system that is trauma-informed realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively resist re-traumatization'* (Substance Abuse and Mental Health Services Administration, 2014).

These principles are based on abundant evidence for the effects of adverse childhood experiences on individuals, and evidence on supportive factors in recovery from trauma (e.g. Copeland et al., 2018; Van der Kolk, 2015). Many system-level indicators of a trauma-informed culture have been developed, in efforts to evaluate the impact of organisational change initiatives (reviewed by Champine et al., 2019). However, causal evidence of the impact of trauma-informed practice on primary outcomes, such as health or educational outcomes, is more limited (Champine et al., 2019), and to our knowledge, no such evidence is available in a UK Higher Education context.

This research aims to investigate the impact of Empowerment 360 at UEL, and is part of UEL's programme of evaluation of its APP activities. The evaluation will be conducted in collaboration between UEL's APP What Works Team and the Empowerment 360 project team. TASO provided guidance and feedback to UEL staff in creating an enhanced Theory of Change and designing this research protocol, as part of a project to support evaluation of student mental health and

wellbeing initiatives. UEL project and evaluation staff attended a series of TASO workshops, with contributions from Rain Sherlock, Dr Eliza Kozman, Dr Helen Lawson (TASO) and Dr Nicola Byrom (King’s College London/ SMaRteN<sup>1</sup>).

| Organisation                                                                                                             | Name                                                 | Role and responsibilities                                         |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------------------------|
| UEL Department of Criminology, Royal Docks School of Business and Law (RDSB L)/ Goldsmiths College, University of London | Dr Emma Davies                                       | Empowerment 360 Project Lead                                      |
| UEL RDSB L                                                                                                               | Rebecca Page-Tickell                                 | Empowerment 360 Project Lead                                      |
| University of East London (UEL) What Works team                                                                          | Arwel Pritchard (Monitoring and Evaluation Officer)  | Monitoring and Evaluation support to Empowerment 360 project team |
| UEL What Works team                                                                                                      | Nicole Alowoessin (Educational Data Insight Officer) | Monitoring and Evaluation support to Empowerment 360 project team |

### 3. Aims

The overarching aim of this evaluation is to investigate whether Empowerment 360 is associated with improvement in student continuation and attainment outcomes at UEL. In doing so, we aim to achieve a Type 2 standard of evidence (‘empirical enquiry’; cf. Office for Students, 2019). We also seek to test our Theory of Change: specifically, to understand the extent to which the project results in UEL’s becoming a more trauma-informed institution, and the extent to which it increases the key psychosocial student outcomes of *resilience* and *sense of belonging*.

Empowerment 360 is not a targeted intervention; it is intended to benefit UEL students in general, and those who have experienced childhood adversity in particular. However, the intervention is specifically intended to benefit home undergraduates with attributes targeted in the ‘success’ and ‘progression’ phases of UEL’s current Access and Participation Plan, including those who: are from the most deprived areas (IMD Q1); identify as from Black, Asian, Mixed or Other ethnic backgrounds; are from areas of low HE participation (POLAR4 Q1); who are mature (21+ and especially 51+); have a disability, including a mental health condition; are care experienced; are estranged from their families. These attributes are henceforth referred to as ‘A&P backgrounds’. It should be noted that the vast majority of UEL’s home undergraduate population have

<sup>1</sup> <https://www.smartn.org.uk/>

one or more of these attributes, making universal or systemic interventions particularly relevant in our institutional context.

### 3.1 Research questions

The specific research questions (RQs) are as follows.

**Primary** RQ1: Did Empowerment 360 increase continuation amongst home undergraduate students at UEL?

**Primary** RQ2: Did Empowerment 360 increase attainment amongst home undergraduate students at UEL?

**Secondary** RQ3: Did Empowerment 360 make UEL a more trauma-informed organisation?

**Secondary** RQ4: Did Empowerment 360 increase resilience amongst home undergraduate students at UEL?

**Secondary** RQ5: Did Empowerment 360 increase the sense of belonging amongst home undergraduate students at UEL?

The large number of research questions partly reflects the complexity of the Empowerment 360 project, which has multiple strands. These strands have the common aim of empowering students to flourish and succeed, and this is reflected in our primary research questions, which could be regarded as a programme-level questions concerned with overall impact of Empowerment 360 on overt behavioural indicators of student ‘success’.

RQ3 concerns the impact of Empowerment 360 on the extent to which UEL is a trauma-informed institution, which will be measured using a staff survey and interviews with staff. RQs 4 and 5 are concerned with the impact of Empowerment 360 on psychosocial student outcomes which we regard, per our Theory of Change, as important to the process of change. These will be measured using student surveys; please see sections 5 and 6 below for further details.

#### *Exploratory research questions*

There are four additional research questions which we would like to address through this evaluation, and which we have designated as ‘exploratory’:

**Exploratory** RQ6: Did Empowerment 360 increase continuation amongst home undergraduate students *from A&P backgrounds* at UEL?

**Exploratory** RQ7: Did Empowerment 360 increase attainment amongst home undergraduate students *from A&P backgrounds* at UEL?

**Exploratory RQ8:** Did Empowerment 360 increase resilience amongst home undergraduate students *from A&P backgrounds* at UEL?

**Exploratory RQ9:** Did Empowerment 360 increase the sense of belonging amongst home undergraduate students *from A&P backgrounds* at UEL?

These exploratory questions relate to the specific impacts of Empowerment 360 for students from backgrounds targeted in UEL's Access and Participation Plan. The questions are intended to generate insights on the extent to which Empowerment 360 has contributed to the student 'success' targets in the 2020/21 – 2024/25 Plan, and to shed light on the process of change by which this may have occurred. This is not a simple matter of introducing student backgrounds as another factor in our impact analysis, as the relevant student attributes overlap, and the Plan does not set out to improve both continuation and attainment for every student group targeted. Specifying separate research questions relating to every target in the Plan would introduce excessive complexity to this research protocol.

We may also conduct further exploratory analyses examining the possible differential impact of Empowerment 360 for students with different baseline levels of depression and anxiety symptoms.

## 4. Intervention

Empowerment 360 includes training and Advocate roles for academic and professional services staff, with the rationale that trauma-informed, supportive relationships and culture will increase the sense of agency, resilience, and belonging amongst students with a history of adversity. The project also engages students individually through internship roles and a community theatre intervention, similarly designed to empower students by increasing their agency and uplifting their voices. For convenience, we refer to these different strands of the intervention as 'staff-facing' or 'student-facing' here.

### 4.1 Staff-facing interventions

An individual staff member can engage with one or more of the following components.

#### *Electronic resources*

An online digital toolkit has been created, and is hosted on a site accessible to all UEL staff. This includes videos on trauma-informed practice, links to external resources such as explanations of the impact of toxic stress from the Harvard Center on the Developing Child, and previous research on adverse childhood experiences in the UEL student population (Davies et al. 2022a, 2022b). Staff are able to access the toolkit



individually and at their own pace. The toolkit was accessed by 13 members of staff in the two months from mid-August to early October 2023.

### *Training workshops*

A series of three half-day, face-to-face training workshops were piloted in May/ June 2023. A member of UEL's HR department organised the logistics of the workshops, and contacted all UEL academic and professional services staff by email to invite them to participate in the pilot. Participation was voluntary, but participants were asked to sign up only if they were able to attend all sessions and were willing to give feedback. 13 staff members participated in the pilot, out of an approximate total of 500 eligible staff.

Workshops were led by professionally accredited academic staff from the Department of Professional Psychology in UEL's School of Psychology, with expertise in various areas of clinical, counselling, coaching, and positive psychology interventions. The content of the training workshops included strategies for self-compassion and the maintenance of supportive boundaries; the nature of trauma and its impacts on survivors, and ways to identify these; the key principles of trust, safety, choice and collaboration, and their application in supportive relationships between staff and students in Higher Education; characteristics of trauma-sensitive learning environments and systems; and creating pathways to empowerment and rebuilding personal agency. The workshops were highly interactive, with participants invited to share their reflections on the content throughout. Because of the sensitivity of the topics covered, participants were asked to maintain confidentiality about reflections shared in the workshops.

Part of the final workshop involved a debriefing in which participants were asked to give feedback. Further rollout of the training sessions is planned for the 2023/24 academic year.

### *Empowerment 360 Advocates and community of practice*

Staff who have completed the Empowerment 360 training are invited to become Empowerment 360 Advocates on a voluntary basis. The role of the Advocates will be to support colleagues, including Academic Advisors (personal tutors), in managing complex cases. As a group of academic and professional services staff drawn from across the University, Advocates will meet regularly in sessions with clinical supervision, and will form a community of practice in trauma-informed student support. A formalised role description has been developed, and although unpaid, the work of Advocates will be included in postholders' academic workload models (in the case of academic staff).

## 4.2 Student-facing interventions

### *Internships*

Student internships have been a key component of Empowerment 360 since the project's inception. Interns are recruited on an annual basis to initiate and lead projects with their cohorts, and receive supervision from the project team. In previous years, projects led by interns have included YouTube videos, podcasts, academic writing workshops and Iftar events, and interns have presented at conferences on trauma-informed practice. In 2022/23, an intern coordinated and facilitated a support group for student parents; although the intern who initiated this has completed their degree, there are plans to continue the group in the next academic year.

It should be emphasised that the precise nature of interns' projects is not prescribed by the project team. However, important features of the internships and intern-led initiatives include the following:

- Interns choose what interventions they develop and implement, based on their own experiences and priorities. This contributes to a sense of empowerment and agency.
- The project leads provide individual support and supervision, including informally checking in on interns' wellbeing.
- Interns have access to University wellbeing services if needed.
- Interns are remunerated for their work.

### *'Still I Rise' theatre workshops*

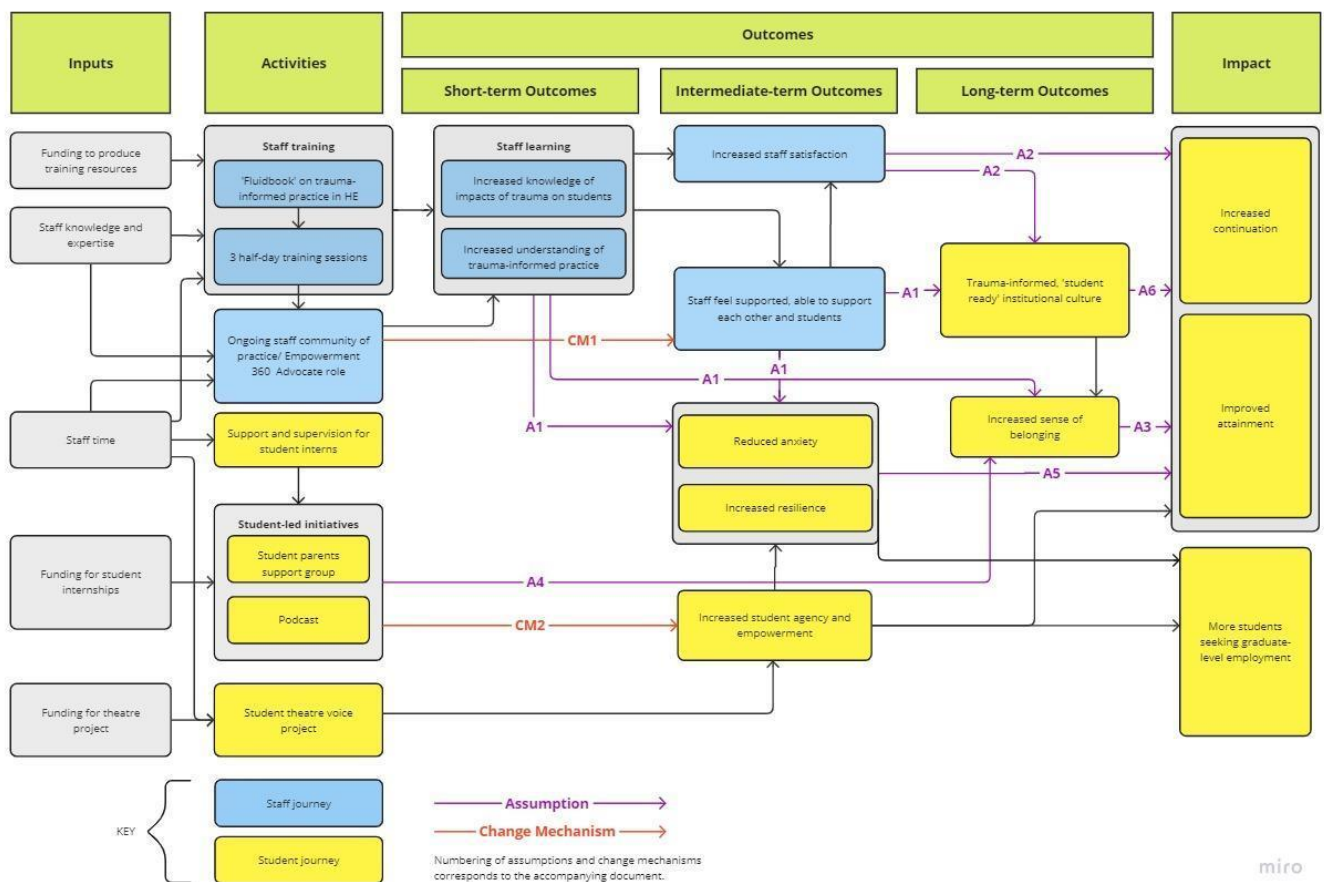
Theatre workshops for students with the title 'Still I Rise' (from a poem by Maya Angelou) are another component of the intervention. The workshops include exercises for acknowledging emotions and their manifestation in the body, followed by storytelling through physical theatre. A series of 6 workshops of approximately 3 hours each are delivered, followed by a full-day workshop of approximately 7 hours. Participants can choose to attend one or more of these workshops. The workshops are interleaved with debriefing and planning sessions for the facilitators.

The workshops are led by students taking the Level 5 Socially Engaged Theatre module of the BA (Hons) Drama, Applied Theatre and Performance programme, under the supervision of Dr Paul Woodward (PW), Co-Programme Leader and Senior Lecturer, who has extensive expertise and experience in delivering physical theatre and storytelling workshops with a wide range of communities. Before planning and delivering workshops with participants, students attend approximately 5 teaching sessions of 2 hours each, covering topics including *Holistic practices to supplement trauma-informed workshop practice*; *The role of storytelling in traumatised communities*; *Awareness through movement – introduction to Feldenkrais & Trauma informed Yoga*; *Introduction*

to *Boal's Rainbow of Desire strategies*. Workshops are interleaved with planning and debriefing sessions for the facilitators. In 2022/23, one of the project leads and Empowerment 360 project interns also contributed to the teaching. Students facilitating the workshops write reflective essays on the process, and consent is sought for these to be used in evaluation. After the workshops, participants also have the opportunity to record short video testimonies on their experience, which is an additional source of qualitative data.

### 4.3 Theory of Change

An Enhanced Theory of Change for this intervention is available; the key diagram from this document is reproduced below.



*Change mechanisms and assumptions referenced in the Theory of Change:*

Change mechanism 1 (CM1): Staff support one another in this work, giving them more confidence, ability to share knowledge, ability to support others in their School and to support students.

CM2: Student interns choose the focus and direction of their work, supported by staff. This fosters a sense that their voices are heard and uplifted.

Assumption 1 (A1): Staff (especially academic staff) have the time and space to build trusting relationships with students. Effective pedagogy and trauma-informed practice are both inherently relational, and involve trust.

A2: Greater staff satisfaction leads to greater organisational effectiveness, better relationships with students, and in turn, improved student satisfaction and retention. In the private sector, this has been conceptualised in terms of a 'Service-Profit Chain', whereby employee satisfaction is essential to customer satisfaction, customer loyalty, and profitability (Heskett, Sasser, & Schlesinger, 1997).

A3: An increased sense of 'belonging' will increase student retention and academic engagement. This is supported by a literature review for HEFCE (Mountford-Zimdars et al., 2015).

A4: We assume that by creating opportunities to engage with peers, including those from other Schools, these student-led interventions increase social integration and sense of community. This is informed by anecdotal feedback from student participants.

A5: 'Resilience' can refer to a person's ability to flourish in the face of adversity, to cope with stressful life events, and to avoid negative outcomes typically associated with external risk factors (Connor & Davidson, 2003; Fergus & Zimmerman, 2005). In patients with post-traumatic stress disorder, higher resilience has been associated with greater treatment response in clinical trials, which provides some support for this construct's relevance to overcoming the effects of trauma (Connor & Davidson, 2003). In an educational context, it has been theorised that greater resilience can support students to overcome stresses and adverse events that would otherwise lead to dropout or academic failure (Durso et al., 2021). We therefore assume that increased student resilience as an outcome of this intervention will causally contribute to increased academic persistence and attainment.

A6: One frequently used definition of 'trauma-informed' is as follows: *'A program, organization, or system that is trauma-informed realizes the widespread impact of trauma and understands potential paths for recovery; recognizes the signs and symptoms of trauma in clients, families, staff, and others involved with the system; and responds by fully integrating knowledge about trauma into policies, procedures, and practices, and seeks to actively resist re-traumatization'* (Substance Abuse and Mental Health Services Administration, 2014). Although there has been extensive interest in trauma-informed approaches in many healthcare and human service organisations, empirical evidence of a link to client/service user outcomes is limited (Champine et al., 2019), and we are not aware of any such evidence pertaining to Higher Education.

However, we assume that a more trauma-informed University would be an environment that supports more students, especially those with adverse childhood experiences, to flourish and succeed.

## 5. Design

The Empowerment 360 project will be evaluated through a mixed-methods, observational study, with embedded quantitative and qualitative elements. The evaluation will focus on the Empowerment 360 project as implemented in the 2022/23 and 2023/24 academic years. Because of the complexity of the intervention and the relatively limited resources available, qualitative methods are not employed for every aspect of the intervention, but are instead targeted at particularly important assumptions and mechanisms in our Theory of Change.

The quantitative aspects of the evaluation will involve the following outcome data:

- Repeated cross-sections of student continuation and attainment outcomes, with the academic year 2021/22 as a baseline, and the academic year 2023/24 as a follow-up (relevant to primary research questions, RQ1 and RQ2);
- A longitudinal survey with student participants in the Still I Rise theatre workshops (RQ4, RQ5)
- A longitudinal survey of staff participants in the training workshops (RQ3).

### 5.1 Staff-facing interventions

As outlined above, important elements of Empowerment 360 involve engaging with academic and professional services staff, rather than engaging directly with students. Identifying students who have been ‘treated’ by the intervention is therefore not straightforward, and requires some means of linking staff with the students whom they teach or support. Although there are multiple ways in which such linkages could be made, we have chosen to do this by considering the School (academic division) in which a student studies. See Appendix A for a summary of an alternative approach we have considered, and the considerations which led us to adopt this ‘Schools’ approach instead.

UEL has six academic Schools in which undergraduates are taught. There are no, or negligible numbers of students taking combined programmes across Schools. Any such students will not be included in this analysis.

For each School, we will calculate a score representing the amount of staff engagement with Empowerment 360 within that School. There are three different aspects of the intervention with which staff can engage, which differ substantially in their intensity and

expected impact. One could conceive of these as creating a different possible ‘dosage’ per individual staff member.

| Participation in intervention                                                              | Intensity of engagement |
|--------------------------------------------------------------------------------------------|-------------------------|
| Non-participant                                                                            | None                    |
| Accessed Empowerment 360 digital toolkit on staff intranet                                 | Low                     |
| Attended training workshops (all 3 sessions)                                               | Medium                  |
| Attended training workshops (all 3 sessions) <i>and</i> became an Empowerment 360 Advocate | High                    |

For each staff participant, their level of participation in the intervention will be converted to a fractional score, with 1 representing the highest level of engagement, and 0 representing no engagement. There may be more possible levels of engagement than the four levels shown in the table above, as i) some individuals may attend some, but not all training sessions; ii) use of the digital toolkit is not a prerequisite for attendance at the ‘live’ training or the Advocate role, so individuals at the higher levels of engagement may differ in whether they have engaged with the toolkit.

For each School, the mean of these individual staff participation scores will then be calculated, to give an aggregate fractional score for that School as a whole. All non-participating staff within a School, with scores of 0, will be included in this calculation. For example, for a School with 5 staff in which 1 person became an Advocate and no other staff participated in the intervention, the score would be 0.2.

#### *Staff-facing interventions: Primary research questions*

To investigate our primary research questions, we will conduct two separate univariate analyses on student continuation and attainment outcomes to test the following hypotheses related to our research questions.

Primary RQ1: Did Empowerment 360 increase continuation amongst home undergraduate students at UEL?

Hypothesis: Higher staff participation with Empowerment 360 within a School is associated with a larger increase in continuation outcomes for students in that School.

Primary RQ2: Did Empowerment 360 increase attainment amongst home undergraduate students at UEL?



Hypothesis: Higher staff participation with Empowerment 360 within a School is associated with a larger increase in attainment for students in that School.

One limitation of this design approach is that it cannot be applied to staff who are not part of a School. At UEL, this category includes many areas of professional services, including those responsible for libraries, residential services, and student wellbeing. Staff working in these services are eligible to participate in Empowerment 360, and this may be important to how the intervention achieves its impacts, as well as being a potential confounding influence on the analysis outlined above. It is much less feasible to link these areas of the organisation to specific students in a way which would allow comparisons to be made according to levels of staff participation in the intervention. However, participating staff who are not part of a School will be included in other aspects of the evaluation, as described below.

*Staff-facing interventions: Impact on trauma-informed organisational culture*

Our third research question (RQ3) concerns the extent to which Empowerment 360 results in UEL's becoming a more trauma-informed organisation. We will investigate this question both qualitatively and quantitatively. Firstly, at a 6-month interval following the training workshops, we will conduct semi-structured interviews with staff who participated in the workshops, including (but not limited to) those who choose to become Empowerment 360 Advocates. The interviews will explore participants' understandings of trauma and trauma-informed practice, which will be used to triangulate quantitative survey evidence (see below). Importantly, we will also explore whether, and how, participants feel they have applied trauma-informed practice in their professional contexts, and will test some of the key assumptions and change mechanisms in our Theory of Change, including:

*A1. Staff (especially academic staff) have the time and space to build trusting relationships with students. Effective pedagogy and trauma-informed practice are both inherently relational, and involve trust.*

For staff participants who become Advocates, the interviews will also be used to deepen our understanding of how the Advocate role and ongoing community of practice have been implemented, and to test the following change mechanism:

*CM1. Staff support one another in this work, giving them more confidence, ability to share knowledge, ability to support others in their School and to support students.*

In addition, participants in the training workshops will be asked to complete the ARTIC scale (see 'outcome measures' section below) at pre-training, post-training, and 6-month follow-up intervals. We will use the attitudinal change in the ARTIC scale

between pre-training and post-training as an indicator that Empowerment 360 training is associated with more trauma-informed attitudes in participants.

Our research question relates to whether the intervention makes the *whole organisation* more trauma-informed. Arguably, surveying a much wider sample of staff, rather than only those who have participated in the intervention, would be a more appropriate way of addressing this question. However, per our Theory of Change, we expect the intervention to change organisational culture primarily through direct staff participation in the intervention. If we establish that staff participation is associated with greater understanding of trauma-informed principles, and an ability to implement these principles at work (through the ARTIC scale, analysed alongside qualitative data), this would, in turn, support the potential of the intervention to change institutional culture at sufficient scale.

It would also be desirable to use the ARTIC scale with a matched comparator group of staff who have not participated in the training, as well as participating staff. This would strengthen the relationship between the intervention and an increase in understanding of trauma-informed practice. However, creating an effective sampling strategy to administer the survey with non-participants at roughly the same time-points as participants would be very challenging, as we are not yet aware which staff will participate in the intervention or precisely when the training will take place.

#### *Staff-facing interventions: Student psychosocial outcomes*

Our secondary research questions, RQ4 and RQ5, relate to the impact of Empowerment 360 on students' resilience and sense of belonging, which are important outcomes per our Theory of Change. A possible approach to investigating these questions would be to run a longitudinal student survey in autumn 2023 (baseline) and autumn 2024 (follow-up), as a census of all home undergraduates who are studying at Level 4 or Level 5 in 2023/24 (and who would therefore be available in 2024/25 for follow-up). If implemented, this additional data collection would allow us to evaluate whether a higher level of staff participation in Empowerment 360 within a School is associated with a larger increase in resilience and sense of belonging for students in that School through a 'difference of differences' approach, analogous to the analyses of continuation and attainment described above. Data from this survey could, potentially, also be used to evaluate the impact of the Still I Rise theatre workshops and the intern-led projects, such as the support group for student parents.

However, an intense recruitment effort would be required to achieve a sufficiently large and representative sample from a student population who are severely time-poor, susceptible to 'survey fatigue', and who would not benefit directly from the research. We



are unlikely to have the resources to achieve this. Given the known vulnerabilities of our student population, ethical considerations might also require additional student support to be offered to participants. Although additional survey data could add considerable value to our evaluation, this would only be the case if a sufficient volume could be collected.

## 5.2 Student-facing interventions

### *Internships*

As outlined in the 'Intervention' section above, student internships are an important part of Empowerment 360. Interns can initiate and lead their own projects with other students, and this is important to how the intervention operates. This fluidity in implementation also presents challenges for planning the evaluation of intern-led projects in advance: for example, a relatively rigid pre- and post-testing design (such as we are proposing for the staff training intervention, as described above) is unlikely to be feasible.

Evaluation of the student internships will be primarily qualitative, through semi-structured interviews with the interns themselves. The interviews will be used to explore the sense of personal agency and empowerment experienced by the interns during the project, and of one of the change mechanisms identified in the Theory of Change:

*CM2: Student interns choose the focus and direction of their work, supported by staff. This fosters a sense that their voices are heard and uplifted.*

Where possible, we will also encourage student interns to evaluate the projects they are leading, particularly with respect to the following assumption, and integrate their findings in the evaluation of the Empowerment 360 project overall:

*A4: We assume that by creating opportunities to engage with peers, including those from other Schools, these student-led interventions increase social integration and sense of community.*

For example, a short focus group at the end of the student parents support group could provide relevant information on this.

### *'Still I Rise' theatre workshops*

We will use a pre- and post-intervention design to evaluate the extent to which participants in the 'Still I Rise' theatre workshops experienced an increase in their subjective resilience and sense of belonging. We recognise that the use of comparative data from matched non-participants would strengthen this aspect of the evaluation.

However, as the workshops are open to all students, the characteristics of typical participants are currently unknown, and resources for data collection are limited, collecting comparative data is unlikely to be feasible in this instance.

Where consent has been given, we will also use participants' recorded video testimonies, and document analysis of workshop facilitators' essays, as additional sources of qualitative data on their perceptions of the process.

## **6. Outcome measures**

### **6.1 Primary outcome measures**

Reflecting the overarching aims of the intervention, our two primary outcome measures are overt behavioural indicators of student 'success': continuation and attainment. These will be constructed from internal administrative data. We will adopt the standard OfS definition of continuation, which is a dichotomous, categoric variable reflecting whether a student remains active in HE on a census date 1 year and 14 days after their commencement date.

Our calculation of continuation is likely to underestimate the OfS continuation outcomes, as we cannot access data on whether a student who has withdrawn from UEL is studying at another HE institution on their census date. However, as these calculations will be used to create a dependent variable to evaluate the impact of Empowerment 360, rather than to estimate regulatory indicators for its own sake, this is unlikely to affect the validity of our analysis.

In the definitions of OfS regulatory indicators, attainment is also a dichotomous, categoric variable, reflecting whether a student is awarded a 'good honours' degree (2:1 or first class honours) or another class of degree. As a dependent variable, this is likely to be less sensitive to the impact of our intervention than a continuous variable. We will therefore, instead, use a student's aggregate degree mark as our second primary outcome measure.

### **6.2 Secondary outcome measures**

#### *Measuring trauma-informed practice*

Champine et al. (2019) conducted a systematic review of the many survey tools created to measure the extent to which an organisation or system is trauma-informed. We will use the Attitudes Related to Trauma-Informed Care (ARTIC) scale developed by Baker et al. (2016) in the 10-item form designed for educational settings (the ARTIC-10-ED), due to its relatively extensive psychometric validation and prevalence in the research

literature. For the 10-item scale, Baker et al. (2016) reported Cronbach’s  $\alpha$  of .82, and test-retest correlations of .82 at  $\leq 120$  days and .73 at 121–150 days.

*Resilience*

We will use the short version of the Connor-Davidson Resilience scale (CD-RISC-10;

Connor & Davidson, 2003; Davidson, 2019a) to measure student resilience. This survey is well-validated and has been extensively studied ; Campbell-Sills and Stein (2007) reported Cronbach’s  $\alpha$  of .85 in a sample of university students.

*Sense of belonging*

At the time of writing, TASO are preparing to the Access and Success Questionnaire (ASQ), following further validation of their Widening Participation questionnaire bank. If available prior to the start of data collection for Empowerment 360, we will use the sense of belonging scale from the ASQ as an outcome measure; otherwise, we will use the sense of belonging scale from the partially validated Widening Participation questionnaire, as released by TASO in 2022.

| Outcome measure                                                                   | Data to be collected                                                                                                                                                    | Point of collection                                                                              | Aggregation                                                             | Sample                                                                                                           |
|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| <b>PRIMARY:</b> Home undergraduate continuation<br>(Primary RQ1, Exploratory RQ6) | Is the student still studying in HE, 1 year and 14 days after commencement?<br>Calculated following standard OfS algorithms.<br><br>A dichotomous categorical variable. | Constructed from internal administrative records several months after the census date, or later. | Will not be aggregated.                                                 | Entire population of UEL home undergraduate students who commenced in 2021/22 (baseline) and 2023/24 (follow-up) |
| <b>PRIMARY:</b> Home undergraduate attainment<br>(Primary RQ2, Exploratory RQ7)   | A student’s aggregate degree mark on a continuous scale                                                                                                                 | Constructed from internal administrative records.                                                | Will not be aggregated.                                                 | Entire population of UEL home undergraduate students who graduated in 2021/22 (baseline) and 2023/24 (follow-up) |
| <b>SECONDARY:</b> 10-item ARTIC scale for                                         | Survey data from participating staff                                                                                                                                    | Immediately prior to first training workshop (pre-)                                              | Scale will be aggregated according to standard scoring method to give a | All UEL staff participating in Empowerment 360 training workshops.                                               |

|                                                                                     |                                                                                                                                                                    |                                                                                                      |                                                                                                                                                         |                                                                   |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| educational settings (Baker et al., 2016)<br>(Secondary RQ3)                        |                                                                                                                                                                    | 1 day following final training workshop (post-)<br><br>6 months after training workshops (follow-up) | single estimate for each participant and time-point.                                                                                                    |                                                                   |
| <b>SECONDARY:</b><br>Student resilience<br>(Secondary RQ4, Exploratory RQ8)         | Resilience, measured by the 10-item version of the Connor-Davidson resilience scale (CD-RISC-10) (Campbell-Sills & Stein, 2007; Davidson, 2019b).                  | Immediately prior to theatre workshops (pre-)<br><br>At final theatre workshop (post-)               | Scale will be aggregated according to standard scoring method for the CD-RISC-10 (Davidson, 2019b) to give a score for each participant and time-point. | All UEL students participating in Still I Rise theatre workshops. |
| <b>SECONDARY:</b><br>Student sense of belonging<br>(Secondary RQ5, Exploratory RQ9) | Sense of belonging, measured by a partially validated 4-item scale developed by TASO (TASO, 2022) or the TASO Access and Success Questionnaire (ASQ), if available | Immediately prior to theatre workshops (pre-)<br><br>At final theatre workshop (post-)               | Scale will be aggregated according to standard scoring method to give a single score for each participant and time-point.                               | All UEL students participating in Still I Rise theatre workshops. |

## 7. Sample selection

This will be an observational study aiming for Type 2 evidence rather than a randomised controlled trial, and we aim to collect census data. We therefore do not have an explicit sampling strategy. Our approach will be to build contingencies into our evaluation design, allowing this to be responsive to the possibility of insufficient participant enrolment, rather than setting a target sample size to which the intervention must conform.

### 7.1 Primary research questions

Because our evaluation of the primary research questions will be based on administrative data, we anticipate that complete outcome data will be available for all students in the relevant cohorts. The greatest risks to our proposed analytical approach are (i) the possibility of low numbers of staff participating in the intervention, leading to their influence on students within a School being very heavily ‘diluted’, and (ii) the possibility that participating staff will be too evenly distributed across Schools, precluding any comparisons between Schools. In these cases, we would conduct only

qualitative evaluation of the ‘staff-facing’ elements of the intervention, and would only be able to achieve a Type 1 evidence standard for our primary research questions.

## **7.2 Secondary research questions: Impact on trauma-informed institutional culture**

For staff participants in Empowerment 360 training workshops, part of our proposed evaluation approach will involve testing the change in understanding and attitudes related to trauma-informed practice (the ARTIC scale) at pre-training and post-training intervals. This will be integrated with analysis of qualitative data from staff interviews.

Before analysing the quantitative survey results from staff participants, we will conduct a power analysis based on published results of change in the ARTIC scale associated with staff development interventions (including grey literature), and use this to estimate the minimum number of participants required. If there are insufficient numbers of participants, only the qualitative data will be analysed.

## **7.3 Secondary research questions: Student resilience and sense of belonging**

Pre- and post-intervention psychometric scales will also be used for participants in the ‘Still I Rise’ theatre workshops to assess the change in students’ resilience and sense of belonging. The possibility of low participant numbers, and/ or low participant response rates, may preclude this. We will conduct a power analysis to determine the minimum number of participants required, and substitute further qualitative evaluation for the survey data if it is clear that quantitative analysis will not be possible. At an early stage in the workshop series, we will monitor participant numbers and, if these are low, will engage with participants to encourage them to participate in further data collection, such as interviews.

We will attempt to achieve a complete, or near-complete response rate from workshop participants by integrating survey data with the running of the workshops, as far as possible (see ‘data collection’ section below). However, the possibility remains that survey response rates will be low, and that the resulting sample will be unrepresentative of participants. It will be difficult to mitigate this in advance, but the characteristics of survey respondents in relation to characteristics of workshop participants will be considered during analysis.

## 8. Data collection

### 8.1 Staff survey data

On registering to attend the Empowerment 360 training workshops, staff participants will be sent full information about the baseline ARTIC survey by email. Time to complete this survey can also be set aside at the start of the first training workshop. At the end of the workshop series, the facilitator will encourage participants to complete the post-training and follow-up surveys. A link to the post-training survey will be circulated by email one day after the final workshop, and participants will be asked to complete the survey within one week. On the survey, participants will also be asked for their consent to be contacted for follow-up interviews.

### 8.2 Student participation and survey data

The theatre workshops are open to all students, including on a walk-in basis. As attendees are not required to register in advance for the workshops, it will be challenging to administer a pre- and post-intervention survey with participants. The following approaches may help to achieve an adequate response rate with respect to the two points of survey collection:

- Include a link to the baseline survey in all communications and promotions with potential participants, and use QR codes in the case of physical media. Set aside time at the start of the first session for attendees to complete the survey. On the baseline survey, collect respondents' consent to contact them with the post-intervention survey.
- Set aside time during the final session for attendees to complete the post-intervention survey, and also contact all respondents to the baseline survey with a request to complete the post-intervention survey.

In addition, a simple process is needed for recording participants' attendance at each workshop in the series, including their student number. This unique identifier will allow us to understand the typical per-student 'dosage' of the workshops, and to link this with pre- and post-intervention survey data. Participants would be informed that their student number would be linked with both their survey responses and their institutional records at the analysis stage, including some personal characteristics, but that access to this information would be limited and all data would be anonymised at the reporting stage. Data on participants' personal characteristics are needed for monitoring implementation, and for understanding the characteristics of survey respondents and their representativeness. If possible, a similar process of recording attendance will be implemented for initiatives led by student interns.

In line with guidance from SMaRteN, the baseline survey will include short scales to measure depression and anxiety symptoms (the PHQ-2 and GAD-2, respectively). These will not be used as outcome measures, but used for exploratory analysis of the participant population and of 'what works for whom'. The feasibility of such analysis will heavily depend on participant numbers and survey response rates.

## 9. Procedure

A high-level timeline for this evaluation will be included here once plans are fully developed for implementation of the intervention in 2023/24.

## 10. Analytical strategy

### 10.1 Primary research questions

To analyse the association between staff participation in Empowerment 360 and our primary student outcomes, we will conduct two separate univariate analyses, using continuation and attainment as dependent variables, respectively. The units of analysis will be individual students, with students from the same School as clusters. We have not yet decided the exact design or statistical model which will be used for these analyses, and this requires further research and thought. However, the analyses are likely to be similar to the following:

- A binary logistic regression with individual student-level continuation outcome as a dependent variable, with time-point (baseline year, 2021/22 versus follow-up year, 2023/24), level of staff participation in a student's School, and two-way interaction as terms in the model. The two-way interaction would be used to test our hypothesis that a higher level of staff participation within a School is associated with a larger increase in continuation for students in that School.
- A mixed-model Analysis of Variance with individual student-level degree attainment as a (continuous) dependent variable, with time-point (baseline year, 2021/22 versus follow-up year, 2023/24), level of staff participation in a student's School, and two-way interaction as terms in the model. The two-way interaction would be used to test our hypothesis that a higher level of staff participation within a School is associated with a larger increase in attainment for students in that School.

Individual student demographic characteristics may also be included as covariates in both models.



### **10.2 Secondary research question RQ3: Staff understanding of trauma-informed practice**

To investigate our question of whether Empowerment 360 training leads to participating staff having greater awareness and understanding of trauma-informed practice, we will conduct a paired-samples *t*-test comparing participants' ARTIC scores post-training with their scores pre-training. This will be used to test the null hypothesis that there is no change in ARTIC scores associated with training.

ARTIC scores at the 6-month follow-up interval will not be included in this analysis, as the purpose of the follow-up is not to assess the change in understanding of trauma-informed practice, but to understand whether any such changes are sustained over time. This supplementary question will be addressed using equivalence testing with a paired-samples *t*-test, with the null hypothesis that scores are lower at follow-up than post-training. If we can reject this null hypothesis, we will conclude that the change associated with the training is sustained.

It is worth restating that, as described in the 'design' section above, the quantitative survey results will be analysed alongside qualitative data on staff perceptions of the intervention.

### **10.3 Secondary research questions RQ4 and RQ5: student resilience and sense of belonging**

As outlined above, a pre-/post- design will be used to evaluate the association between participation in the 'Still I Rise' theatre workshops and changes in students' resilience and sense of belonging. Paired-samples *t*-tests will be used. If respondent numbers are sufficient to allow further analysis of these outcomes by student backgrounds (the exploratory questions RQ8 and RQ9), a mixed-model ANOVA is likely to be used.

## **11. Ethical considerations**

Fuller ethical scrutiny of this evaluation will follow once further details of the research protocol have been confirmed, and before the evaluation begins. However, principal ethical considerations include the following:

- We are proposing that survey data, and attendance data in the case of the student theatre workshops, will not be anonymous at the point of collection, but will instead include participants' student number (a unique identifier). At the analysis stage, this will allow linkage of these data with administrative records already held by the institution. By avoiding the need to collect data on many sensitive items, such as students' personal characteristics, this may reduce the



risk of psychological harm and social risks overall. However, great care should be taken to ensure the security of all data management arrangements.

- There is a clear need to ensure informed consent from participants in the staff survey, student survey, and all interviews, and otherwise to protect the rights of participants in standard ways.
- Because of the nature of the intervention and its aims, there is a risk of inadvertently overstating the benefits of the evaluation to participants. Participant information and consent statements should make the potential benefits as clear as possible.
- There are social risks to the proposed interviews with participating staff. These risks will be especially acute for the Empowerment 360 Advocates - and in general, if low participant numbers increase the likelihood that staff will be identifiable. Similar considerations will apply to interviews with the student interns, as the number of these students will be small.
- The proposed analysis of student continuation and attainment outcomes by levels of staff participation in the intervention (relevant to our primary research questions) could be regarded as being covered by prior consent obtained by students at the point of enrolment. This analysis will not require students to engage in any additional activities which they would not normally do. We therefore do not consider student consent to be required for this aspect of the evaluation. This analysis will also require the use of data on staff participation in the intervention, and such staff data are already required for the running of the intervention; similarly, this may mean that consent from staff is not needed. However, we should consider whether participating staff will be informed of this aspect of the evaluation, what form this information should take, and whether staff participating in the intervention should be given the opportunity to withdraw from the research.
- Collecting survey data on students' resilience and sense of belonging carries a risk of psychological harm. Possible mitigations should be considered when planning the administration of this survey and the information provided to participants. The inclusion of questions on depression and anxiety symptoms in the baseline survey (PHQ-2 and GAD-2) increases the risk of psychological harm, and we should further consider whether the possible benefits of using such data would justify this, especially in view of the possibility that participant numbers will preclude such analysis.

## 12. Risks

| Part of evaluation      | Risk                                                                                                                                          | Mitigation strategy                                                                                                                                                                                                                                                                                                                                                       | Risk owner                                        |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| Participant recruitment | Too few UEL staff participating in the intervention (toolkit, training, and/ or Advocates) to permit intended quantitative evaluation methods | <ul style="list-style-type: none"> <li>• Close collaboration between colleagues in multiple areas of the university in planning, recruitment and delivery of interventions</li> <li>• Contingency plan to use only staff interviews if risk materialises</li> </ul>                                                                                                       | What Works team, Project Leads and delivery staff |
| Participant recruitment | Similar levels of staff participation across different Schools, precluding comparisons                                                        | <ul style="list-style-type: none"> <li>• Difficult to mitigate, due to the purely observational design.</li> <li>• Contingency plan to use only staff interviews if risk materialises</li> </ul>                                                                                                                                                                          | What Works team and Project Leads                 |
| Participant recruitment | Too few students participating in Still I Rise theatre workshops                                                                              | <ul style="list-style-type: none"> <li>• Development and implementation of a marketing strategy for 2023/24 workshop delivery</li> <li>• Contingency plan to use only qualitative data if risk materialises</li> </ul>                                                                                                                                                    | What Works team, Project Leads and delivery staff |
| Data collection         | Poor survey response rates (staff and/ or students)                                                                                           | <ul style="list-style-type: none"> <li>• Plans to promote survey completion within delivery of the interventions</li> <li>• Primary outcomes (continuation, attainment) are based on administrative data rather than surveys</li> <li>• Checking representativeness of sample on demographic and other characteristics if a participant census is not achieved</li> </ul> | What Works team, Project Leads and delivery staff |

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## Appendix A: Approaches to linking student outcomes with the staff-facing interventions

To investigate the impact of the staff-facing aspects of Empowerment 360 on student outcomes, our evaluation design requires some way to 'link' participating staff with the students they teach or support.

There are at least two possibilities:

- Consider which **modules** a staff member teaches, and examine outcomes of students on those modules (TASO's previous work on curriculum reform is a possible model for this module-level approach)
- Consider the location of staff members within the organisation - the academic **Schools** they belong to - and examine outcomes of students within those Schools.

The table below shows our assessment of some of the strengths and weaknesses of each of these approaches.

|           | 'Modules' approach                                                                                                                                                                                                                                                                                                                                                                           | 'Schools' approach                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Strengths | <ul style="list-style-type: none"> <li>• A participating staff member potentially has more influence on the students they are teaching than on other students in their School.</li> <li>• Student attainment on a module could be computed as a continuous variable, and might therefore be more sensitive to change than attainment as a dichotomous measure of degree outcomes.</li> </ul> | <ul style="list-style-type: none"> <li>• The intervention is intended not only to influence individual staff who participate, but also to change the organisation/ system of which they are a part (e.g. Empowerment 360 Advocates can be a focal point for colleagues).</li> <li>• The ways in which individual staff within a School can influence student outcomes are likely to be varied, complex and multifarious, and difficult to reduce to a simple mapping of individual staff to students. Academics have many possible roles in relation to curriculum, pedagogy, and pastoral support, not all of which are readily measurable. Considering the 'mass' influence of all staff within a School means the research design can remain</li> </ul> |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>agnostic to these multiple kinds of influence.</p> <ul style="list-style-type: none"> <li>• Some professional services staff (those based within a School) can be included.</li> </ul>                                                                                                                                      |
| Weaknesses | <ul style="list-style-type: none"> <li>• It is difficult to see how such a design could take account of <i>continuation</i> outcomes, as these are outcomes of individual students overall rather than pertaining to specific <i>modules</i>.</li> <li>• Because of commonalities in the modules taken by students, particularly at Level 4, it may not be possible to predict the influence of specific staff on students based on module allocations.</li> <li>• Pastoral support to students does not necessarily align with how teaching staff are allocated to modules. Some of this pastoral support is recorded formally, through the Academic Advisor (personal tutor) system, but it can also occur informally, by students approaching staff with whom they feel comfortable. The pastoral role of academics is likely to be important to how the intervention operates.</li> </ul> | <ul style="list-style-type: none"> <li>• If only small numbers of staff participate in the intervention, their influence on students in their School may be heavily 'diluted'.</li> <li>• It is possible that participating staff will be distributed relatively evenly across Schools, precluding any comparisons.</li> </ul> |

Weaknesses of both approaches include:

- Professional services staff who are not members of a School (e.g. Student Services) will also participate in the intervention, and this may be important to how the intervention achieves its impact. Neither the 'modules' or 'Schools' approaches to identifying 'treated' students will be able to capture this.

- This design assumes that such staff who are part of a cross-institutional service, rather than part of a School, have a roughly uniform influence on students across the different Schools.