Monitoring and Evaluation Framework

Centre for Transforming Access and Student Outcomes (TASO)

Summary

- This framework will guide you through the process of evaluating your schemes and services and outlines TASO's expectations for monitoring and evaluation activity.
- It will guide you through the development of your Theory of Change model, which is essential for all interventions as it sets out the intended outcomes of the project and how resources and activities will lead to those outcomes.
- Once you have established your Theory of Change you will plan your evaluation, including agreeing the research questions your evaluation seeks to answer, and which indicators will enable you to demonstrate impact.
- It supports you to select the appropriate research methods to answer your research questions and evaluate the process and impact of your interventions.
- Your Research Protocol is a working document that describes the overall approach that will be used throughout your intervention, including its evaluation. The protocol is necessary so that anyone working on the project has full knowledge of the rationale and a detailed plan as well as the supporting evidence for your chosen approach.
- Finally, you can assess the security of your evaluation using the self-assessment tool. This enables you to understand how confident you can be regarding the findings of your evaluation.

Contents

1 Introduction

The Centre for Transforming Access and Student Outcomes in Higher Education (TASO) is responsible for ensuring that schemes and services delivered across the sector are based on robust evidence and are well-evaluated, to ensure they are delivering the outcomes the institution cares about for our outreach participants and students.

This Monitoring and Evaluation Framework (MEF) is designed to help activity providers demonstrate and understand the impact they're having on participants. Keeping the lifecycle of widening participation activities in mind, it covers pre-16 outreach through to initiatives to address gaps in graduate outcomes.

This document describes the evaluation process, including agreeing the initial understanding of what a service or scheme is trying to achieve by creating a Theory of Change, selecting the most effective research method, and developing a Research Protocol. The MEF is not intended to replace the support that in-house evaluation may provide but sets out the steps that we recommend your evaluation team and you to use to guide colleagues through developing an evaluation approach.

2 Evaluating a service or scheme

2.1 When to evaluate?

An effective evaluation is not an event that occurs at the end of an intervention, but an ongoing process that helps you understand how your intervention is working, what effect it is having on stakeholders and systems, and how it is influenced by both internal and external factors. Although evaluation is generally more effective and credible when it is built in from the beginning, evaluations can also be retroactively applied to existing or completed initiatives.

2.2 Types of evaluations

Some work draws the distinction between **process** and **impact** evaluations. It is possible and useful to run both types of evaluation, either together or in sequence.

- **Process and Implementation Evaluation**, enable you to assess whether the initiative, analysis and underlying assumption(s) are being implemented as intended. This type of evaluation provides information about how best to revise and modify for improvement and is often helpful for pilot projects and new services and schemes. Process and implementation evaluation can also be used to monitor the progress and delivery of ongoing initiatives.

- In **Impact Evaluation**, initiatives are assessed at the end of an operating cycle. Findings are typically used to help decide whether the service or scheme should be

adopted, continued, or modified for improvement. It is TASO's expectation that over time the sector will have high-quality impact evaluations for all their out-/inreach schemes. As an affiliate What Works Centre, TASO specifically promotes and generates rigorous experimental and quasi-experimental impact evaluation methodologies.

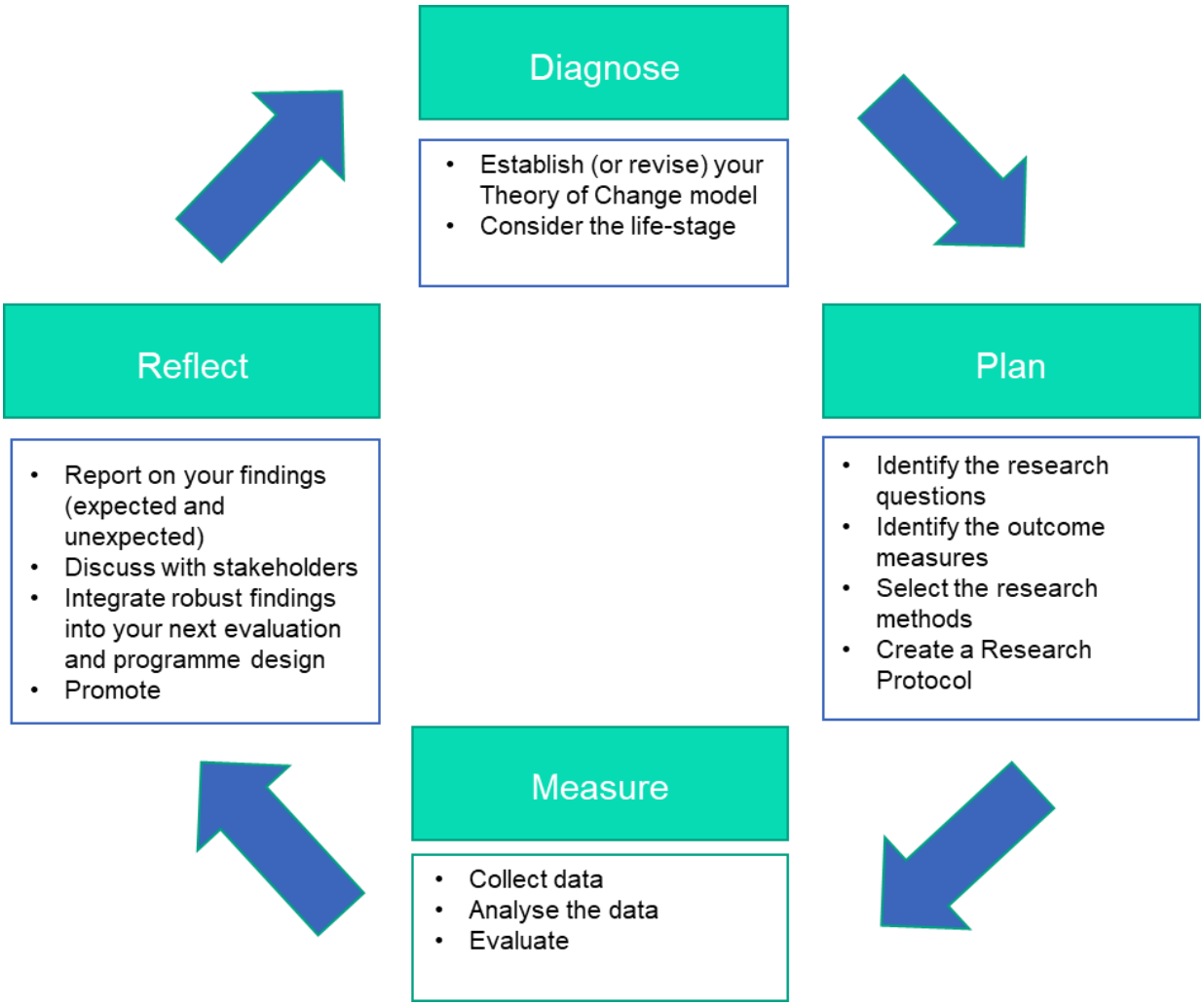
As outlined by the OfS[1], all evaluations funded or co-funded by APP funds should have some element of impact evaluation – ultimately, what TASO and the sector should care about is whether the initiative is having the desired impact on student outcomes. Despite being independent from the OfS, TASO promotes an impact-driven evaluation approach that interlaces process evaluation within its design to, ultimately, determine which interventions work in transforming access and student outcomes in UK high education. The following MEF is designed to support providers in meeting this expectation. Process evaluations are extremely valuable and where possible evaluation approaches should look to combine both elements.

2.3 The evaluation process

Within TASO's MEF, we identified four main steps to consider when planning your evaluation which are outlined in the diagram below. As the circular design indicates, this is an iterative process that supports continuous improvement - the findings of your evaluation (in 'Measure') should feed into the refinement of your Theory of Change, research questions and research methods (in 'Reflect'). Crucially, your evaluative findings should be seen as just one strand of a multi-faceted approach to mobilising knowledge. Although traditional communication of research can provide a cost-efficient way of engaging a large number of stakeholders, and create widespread awareness of a piece of work, it should be seen as a foundation for further activities, rather than the end-product itself.

[1] Millward, C. (2019). *Evidence for impact on access and participation*. [Online]. Available from: https://www.officeforstudents.org.uk/news-blog-and-events/our-news-and-blog/evidence-for-impact-on-access-and-participation/

This includes developing resources and processes to support evidence-informed school improvement, as well as creating wider readiness and incentives to use research by working with regional and national policy makers. A range of knowledge mobilisation strategies with your internal and external stakeholders, such as policy engagement, sector-led training, actionable guidance reports, implementation resources, programme scale-up (in addition to traditional communication and dissemination will help your institution as a learning organisation to try new evaluations, seek to learn from the subsequent findings, and work to adopt and embed the practices that work best.



3 Step 1: Diagnose

3.1 Establish a Theory of Change model

The first step when designing your evaluation should be to map the different components of your intervention and describe how you will achieve the desired outcomes and impact. This is known as a Theory of Change – your theory of how you predict your intervention will bring about the desired change. One effective way of setting out your Theory of Change is explained in more detail in the following sections.

What is a Theory of Change?

The terminology use differs depending on the foci of literature but phrases[2] are generally used interchangeably with 'Theory of Change' and are sometimes argued to have different by focusing on specific elements in the programme and evaluation design[3]. For the scope of this framework, we refer to a Theory of change as "*a visual representation of a programme's inputs, activities, outputs, outcomes* […,impacts…] *and underlaying causal mechanisms"*[4]. A Theory of Change describes the underlying assumptions about how planned activities will lead to intended outcomes. By developing a model setting out your Theory of Change, you can understand how different aspects of your programme fit together to achieve your final goal. In the event of a null or negative result, a well-designed Theory of Change will help the evaluator in distinguishing between theory fallacy (the underlying assumptions are not leading to the intended outcomes), implementation fallacy (the intervention was not implemented as intended) or methodology fallacy (unsuitable evaluation methods were used or suitable methods were used insufficiently).

A Theory of Change model allows you to:

- describe the need you are trying to address
- the changes you want to make (your outcomes); and
- how you plan to achieve these changes (your activities)

[2] These include, but are not limited to 'logic model', 'theory of action', 'causal chain', 'intervention logic', 'logical framework (logframe)', ''outcomes line', 'programme logic', 'programme theory'. 'results chain'.
[3] Funnell, S. C., Rogers, P. J. (2011). *Purposeful Program Theory*. San Francisco, CA: Jossey-Bass.
[4] Drawing on: Coldwell & Maxwell, 2018; Cooksy, Gill, & Kelly, 2001; Funnell & Rogers, 2011; Kaplan & Garrett, 2005; Knowlton & Phillips, 2012; Renger & Titcomb, 2002.

This is best done collectively, drawing on the experience of those who will work on the service or scheme's implementation. A detailed outline of the ToC workshop(s) TASO is proposing can be found in our in-depth Process and Implementation Guidance.

Why do I need a Theory of Change?

A Theory of Change helps you answer the following questions:

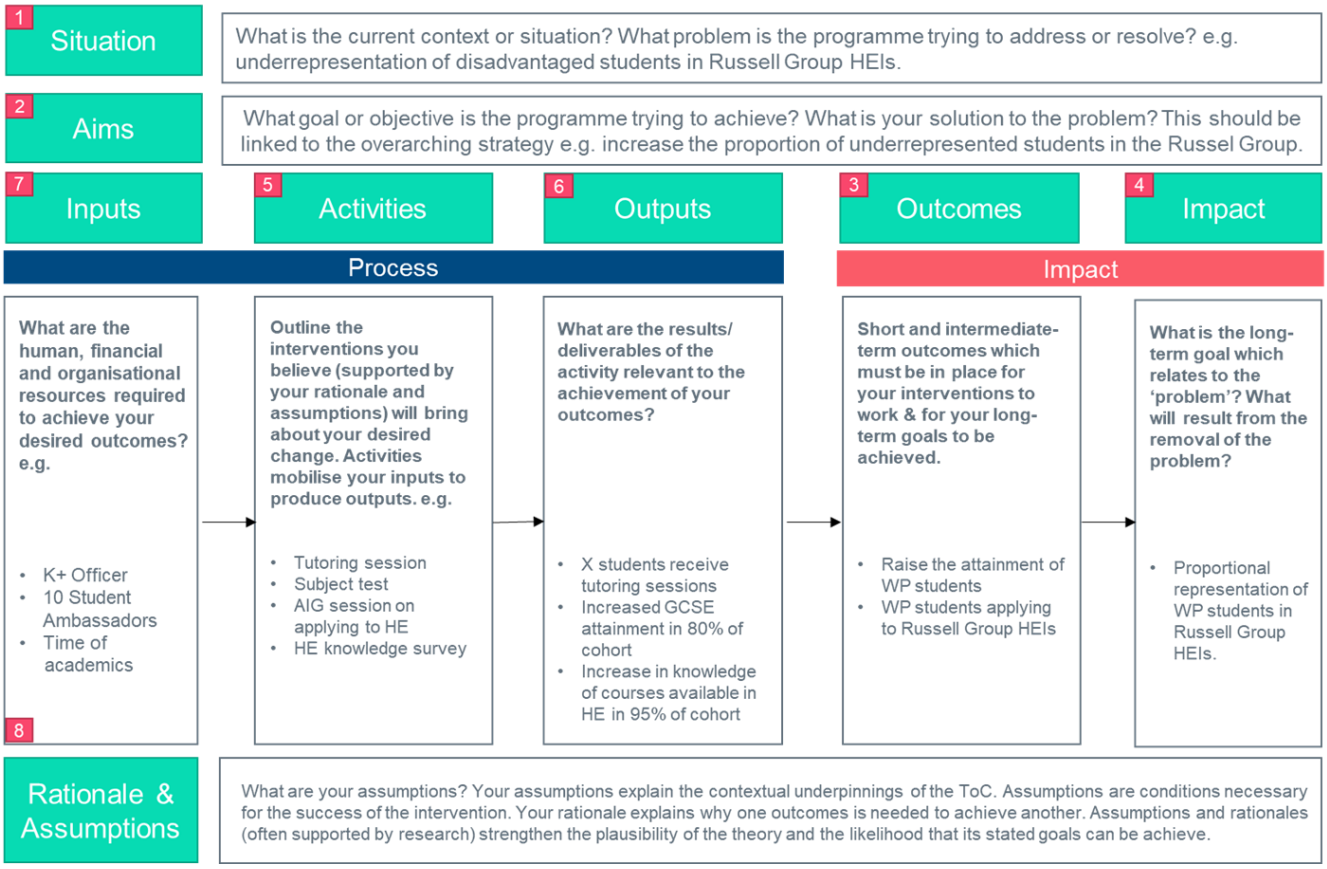
1. **Is this the right intervention?**
   A Theory of Change requires you to model your desired outcomes, **before** deciding on the interventions to achieve those outcomes. This method facilitates evaluation and allows you to design interventions which **can** achieve the desired outcomes. It also allows you to critically assess the intervention you have designed and be transparent about how you believe the intervention will cause (or will link to) the long-term goal.

2. **Is your intervention doable?**
   A Theory of Change sets out how the intervention is intended to work and the resources necessary to deliver the intervention. This allows you to identify whether you need to review your outcomes, and adapt the activities to achieve them, given the resources available.

3. **Is your intervention testable?**
   A Theory of Change model will help to identify questions to be address in the evaluation and possible sources of evidence. Once you have identified sources of evidence, you will be able to assess if things are progressing (or not) and if you are on course to meet your short and medium-term outcomes.

How do I develop a Theory of Change?

Developing an impact-focussed Theory of Change is straightforward when you approach it using the following steps in sequence (steps 1-8), rather than mapping from activity to impact. Doing so will structure your thinking, starting broadly with the current state of play (steps 1&2) and identifying the outcomes (step 3) which will enable you to get where you want to be (step 4), followed by the specific things that need to happen to get you there (steps 5-7). Then you can consider the assumptions (step 8) underpinning your Theory of Change – this will help you to understand whether you can achieve your intended impact within the context you are operating.



Theories of Change are best developed as part of a group discussion, preferably with an external facilitator – your evaluation teams can assist with this. Your team should go through the following sections.

1. **Situation:** What is the context in which you are working? What problem is your intervention trying to address or resolve?
2. **Aims:** What goal or objective is the intervention aiming to achieve? What is your proposed solution to the problem? Your aim should be linked to your overarching strategy.
3. **Outcomes:** Which short and intermediate-term outcomes need to be in place for the long-term goals of your intervention (or impacts) to be achieved?
4. **Impact:** What is the long-term goal which relates to your *situation* and *aims*? What will result from the removal of the problem?
5. **Activities:** Outline the interventions you believe (supported by your rationale and assumptions) will bring about your desired change. Activities mobilise your *inputs* to produce *outputs*.

6. **Outputs:** What are the direct results or deliverables of your intervention which enable you to achieve of your *outcomes*?
7. **Inputs:** What are the human, financial and organisational resources required to deliver your *activities* and, in turn, achieve your desired *outcomes*?
8. **Rationale & assumptions:** What are your assumptions? Your assumptions are the conditions which underpin, and are necessary for, the success of the intervention. What is your rationale? Your rationale explains why one outcomes is needed to achieve another. Including your assumptions and rationale (which are often supported by research) strengthens the plausibility of your theory and the likelihood that its stated goals can be achieve.

Once you have developed the Theory of Change, it's important to type it up and save it somewhere (or print it out) where everyone can see it and refer back to it. It may also be helpful to share this with key stakeholders.

3.2 Consider the life-stage of your initiative

It's important to consider how much we already know about how the initiative under evaluation operates. Looking at the Theory of Change, consider how many of the assumptions you are confident of, and how much we already know about whether inputs lead to activities, leading to outputs.

This influences the relative emphasis we would place on measuring *impact* versus understanding *process*.

- For instance, if it's a brand-new initiative, we might classify it as a pilot because we don't yet know whether it is technically possible to run, whether people will engage with it, and so on. In this case, we might shift the focus of the evaluation more towards understanding the *process* of delivering the initiative, with less of an emphasis on robust measurement of the causal impact of the initiative.
- Likewise, if the programme is very complex, and contains multiple elements, we might want relatively more *process evaluation* to understand how the different elements fit together.
- An established, relatively straightforward service with a high volume of interactions might need relatively more focus on the effectiveness of the service, thus measuring the *impact*.

Over time, the goal is to be confident that each stage in the Theory of Change flows on to the next; however, this is a process that will occur over multiple years and multiple phases of evaluation.

4 Step 2: Plan

4.1 Identify Research Questions

Next you will need to develop the questions that your evaluation will seek to answer, based on your Theory of Change. These are the overarching questions and will determine the overall scope and approach of your evaluation.

The first research question should be about the causal impact of the intervention or scheme:

- **Did [scheme] increase [outcome] among [group]?**

For example:

- Did the residential summer school increase acceptances to highly selective universities among high-achieving students from low-income backgrounds?
- Did Welcome Week improve first year attainment among first-year undergraduates?

You might also wish to have secondary research questions focusing on the impact for specific groups, or for intermediate outcomes:

- Did Welcome Week improve first year attainment among first year undergraduates from widening participation backgrounds?
- Did Welcome Week increase belongingness among first-year undergraduates?

You may also wish to have research questions relating to other effects of the intervention, or about the way it was implemented and experienced by recipients (mapping to the process elements of your Theory of Change – steps 5-7); such as,

- Was the initiative delivered the way we expected?
- Are we targeting the right students?
- What was the cost-effectiveness of the initiative?

To help formulate your questions, you should also consider:

- Who will use the findings and how?
- What do stakeholders need to learn from the evaluation?
- What questions will you be able to answer and when?

4.2 Identify Outcome Measures

Once you have established your research questions you will need to consider which outcome measures or indicators best enable you to answer them and to demonstrate success. These

outcome measures should link closely with the *process*, *outcomes* and *impact* you have recorded in your Theory of Change. A simple way to think about which measures to select is:

"I'll know [outcome reached] when I see [indicator]"

The Common Outcome Measures table sets out common outcome indicators for initiatives at each stage in the student lifecycle, from Key Stage 3 through to post-graduation. The framework supports the identification of outcome measures or indicators, relating to specific objectives, to support the measurement of progress or achievement of outcomes. See the example overleaf which links outcome measures to the Theory of Change.

If it is necessary to develop new indicators outside those in your Common Outcome Measure table, it's worth considering the below hierarchy of measures based on their reliability and validity:

0. Output only,
1. Self-report subjective (e.g. perceived knowledge),
2. Self-report objective (e.g. actual knowledge),
3. Validated scales (e.g. from academic research, externally-administered tests),
4. Interim or proxy outcome (e.g. GCSE selections, sign-ups to events), or
5. Core impact (e.g. A level attainment, university acceptances, continuation).

Generally, we should aim to be focusing evaluations on measures at the higher end of this scale (i.e. 3 and above).

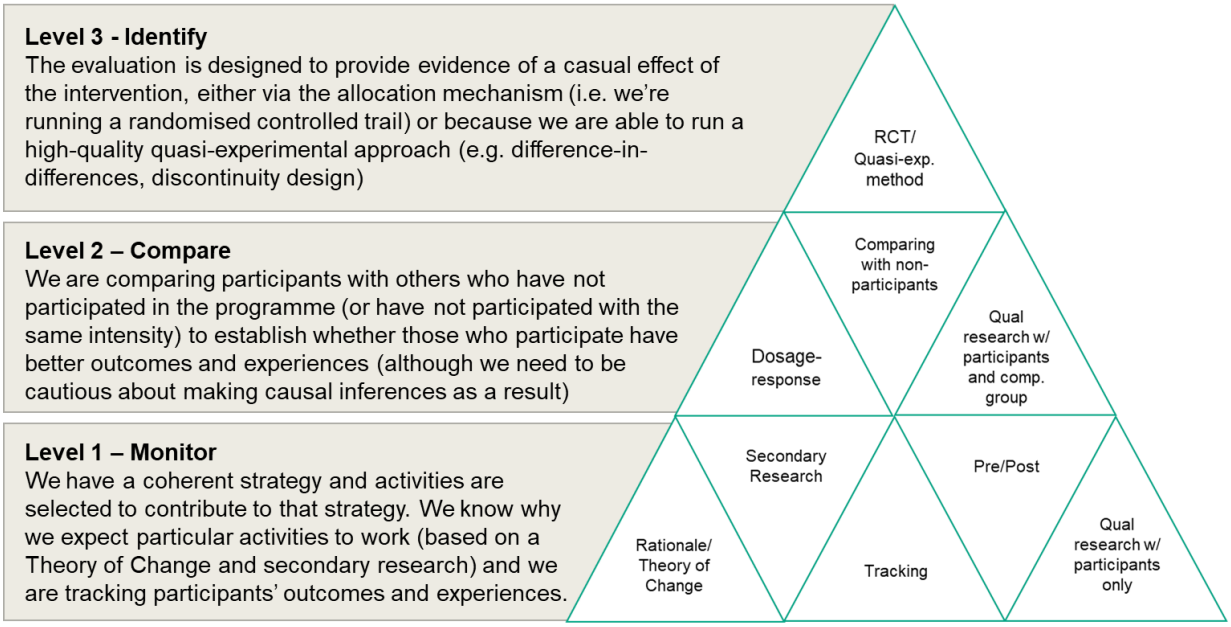
4.3 Select a Research Method

Impact evaluation

There are many different methods that can be used to try and understand both whether your initiative is having an impact, and how it's operating in practice. In this section, we focus on the primary research method – that is, the research method being used to investigate your primary research question, which will enable you to **measure the causal impact of your initiative on an outcome.**

Overall, some research methods are better suited to this question than others. Following the OfS' Standards of Evidence, we conceptualise three levels of impact evaluation: Monitoring, Comparing and Identifying. Over time, we would expect all programmes across the sector to move towards having Level 2 or, where feasible, Level 3 impact evaluations associated with them. However, this process may occur over a number of years, especially for new or complex initiatives.

The diagram below summarises some of the key research methods at each level, while a detailed research method guidance is included in the annex of this document.



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Level 1 – Monitor

We have a coherent strategy and activities are selected to contribute to that strategy. We know why we expect particular activities to work (based on a Theory of Change and secondary research) and we are tracking participants' outcomes and experiences.

Level 1 evaluation is a basic expectation of all services and schemes. Initiative owners should lead on planning for monitoring the outcomes of participants and service users. This includes secondary research to guide initiative development, tracking destinations of participants, and conducting post-initiative research to gauge the position of participants post-service. Institutional evaluation teams, if available, can advise on the development of a Level 1 evaluation approach and may in some cases be able to support delivery (for example, conducting focus groups or data analysis), but Monitoring is the responsibility of initiative owners.

Level 2 - Compare

We are comparing participants with others who have not participated in the programme to establish whether those who participate have better outcomes and experiences.

Level 2 evaluation should, over time, be feasible for all services and schemes. At this level, institutional evaluation teams, if available, will lead on evaluation, agreeing a research approach with the initiative owners and co-drafting the Research Proto col.

Level 3 - Identify

The evaluation is designed to provide evidence of a causal effect of the intervention, either via the allocation mechanism or because we are able to run a high-quality quasi-experimental approach.

Level 3 evaluation is the goal for all services and schemes; however, the form of the evaluation, the timelines, and whether it is ultimately feasible will vary. It is important to note that in some cases a high-quality Level 2 evaluation will provide better evidence of an impact than the available or feasible Level 3 evaluation approaches. Institutional evaluation teams, if available, should always lead on Level 3 evaluations, agreeing a research approach, drafting the Research Protocol and conducting the evaluation. Initiative owners will be closely involved at all stages to ensure that the evaluation design doesn't impact on service delivery.

Process evaluation

At this stage you should also consider the best way to collect data about the way the initiative worked, whether everything went to plan, and how it felt to participants and partners. The methodology guidelines also contain an overview of common process evaluation methods.

4.4 Analysis Strategy

Based on your research method, you should consider how the data is going to be analysed. This is equally important – if not more so – for qualitative and process evaluations, where there are likely to be more research questions with a less direct link between the question, method and analysis strategy. For instance, if you are conducting focus groups or interviews, will you take notes or will they be recorded and transcribed? In the latter case, how will you convert the them? There are a range of different methodologies and software that can be used, and conducting robust qualitative research is as difficult as conducting robust quantitative research.

Deciding your analysis strategy in advance reduces the temptation to cut the findings in a way that supports what you'd like to find. It also gives you a roadmap through the data, which can sometimes be overwhelming in the number of options it presents, it helps maintain focus in the analysis on the key questions you wanted to answer.

For Level 2 and 3 evaluations, the institutional evaluation team, if available, will work with you on the best analysis strategy, and will provide advice and guidance on Level 1, survey and qualitative research.

4.5 Create a Research Protocol

A Research Protocol is a written document that describes the overall approach that will be used throughout your intervention, including its evaluation. Having a Research Protocol in place serves a number of important purposes:

- It lays out a cohesive approach to your planning, implementation and evaluation
- It documents your processes and helps create a shared understanding of aims and results
- It helps anticipate and mitigate potential challenges
- It forms a basis for the management of the project and the assessment of its overall success
- It documents the practicalities of implementation

Reasons for creating a Research Protocol include:

1. Set out what you're going to do in advance is opportunity to flush out any challenges and barriers before going into the field.
2. Writing a detailed Research Protocol allows others to replicate your intervention and your evaluation methodology, which is an important aspect of contributing to the broader research community.
3. Setting out your rationale and expectations for the research, and your analysis plan, before doing the research gives your results additional credibility.

Protocol: [PROJECT] [DATE]

1. Summary
2. Project Planning
    a. Background
    b. Aims/Objectives
    c. Key Personnel
    d. Timetable
    e. Preliminary work
3. Design
    a. Theory of Change
    b. Intervention design
4. Evaluation
    a. Research Questions
    b. Outcome Measures
    c. Research Method
5. Analytical Strategy
    a. Data collection
    b. Power calculations
    c. Analysis
6. Risks and mitigations

The protocol should be written as if it's going to end up in the hands of someone who knows very little about your organisation, the reason for the research, or the intervention. This is to future-proof the Protocol, but also to ensure that you document all your thinking and the decisions you have made along the way[5]. There is a template Research Protocol available on the TASO website.

[5] For more on this see: https://blogs.kcl.ac.uk/behaviouralinsights/2018/01/03/research-protocols-the-importance-of-a-plan/

4.6 Self-Assess Evaluation Security

Based on the decisions you have made around your evaluation, you will be able to assess the security of your evaluation – that is, how confident you can be when making claims about the findings. The most robust evaluations with large samples, low attrition levels and no threats to validity will receive the highest score of 5/5. However, it is worth bearing in mind that in many cases it will not be feasible to achieve a score this high, due to the nature of the research questions and the subsequent evaluation methods used to answer them. Your overall rating will be calculated by taking the average score of each section in the table below.

	0 (Low)	1	2	3	4	5 (Excellent)	Rating
Research Design	No Comparison group (Level 1)	Comparison group, poor/ no matching (Level 2)	Matched comparison (Level 2)	Well-matched comparison (Level 3)	Quasi-experimental approach (Level 3)	Randomised Controlled Trial (Level 3)	
	See section 4.3 and Annexe 2 for more detail about research designs.						
Sample (per arm)	<50	50 – 100	100 - 500	500 – 1000	1000 – 2000	>2000	
Outcome measure	Output only	Self–report subjective	Self-report objective	Validated scales	Interim or proxy outcome	Core impact measure	
	See Section 4.2 and Annexe 1 for more detail on the common core outcomes.						
Attrition	>50%	<50%	<40%	<30%	<20%	<10%	
	The proportion of the cases we're expecting we'll be unable to collect outcome data for, or who will withdraw from the intervention while it's running.						
Validity	Major threats to validity	Some threats (e.g. major deviations from protocol)		Minor risks (e.g. small deviations from protocol)		No threats to validity	
	Any other threats to the validity of the; e.g. is outcome data collected inconsistently, might control individuals get some of the intervention, are the assumptions of the research method unjustified?						
OVERALL RATING	Sum individual ratings and divide by 5						0/5

5 Step 3: Measure

5.1 Collect and analyse data

You should now collect and analyse the data as specified in your Research Protocol. For process evaluations and Level 1 impact evaluations, which consist mainly of monitoring activity; collecting and interpreting the data is the responsibility of the initiative owner, however, if you require support – the institutional evaluation team, if available, can help. For Level 2 and 3 evaluations, an institutional evaluation team, if available, should lead on the evaluation in collaboration with initiative owners.

5.2 Evaluate

You should maintain a record of all evaluations conducted for your programmes. Where these are Level 1 evaluations, you should keep a copy of the Research Protocol and the write-up of the findings of the evaluation. For Level 2 and 3 evaluations, you should prepare an Evaluation Report that summarises the evaluation method, including any limitations, and provides answers to each of the agreed research questions. You should also make recommendations for the next phase of evaluation, if applicable.

It is important to note that evaluations of one service or scheme cycle will not yield recommendations regarding the future of service or schemes under evaluation. Ultimately, it is the initiative-owner's responsibility to decide whether or not an initiative should be continued, modified or ceased. If an evaluation results in a neutral or negative result, however, we would recommend a more in-depth and rigorous evaluation approach for the next phase of the service or scheme.

6 Step 4: Reflect

6.1 Report

Generating evidence can only get us so far. Ultimately, it doesn't matter how great an educational idea or intervention is on paper; what really matters is how it manifests itself in the day-to-day work of students and educational stakeholders. It is therefore crucial that the findings of all evaluations are shared to enable learning across the institution. Institutions deploying widening participation activities are learning organisation. They continuously strive to do better for the participants and staff in their charge. In doing so, they try new things, seek to learn from those experiences, and work to adopt and embed the practices that work best. There has been a growing recognition over the last 20 years that simply 'packaging and posting' research is unlikely, by itself, to impact significantly on decision-making and behaviours. This part of the MEF is therefore intended to support you in putting evaluation evidence to work in your setting, whether that's a university, FE, or local NCOP . It will help you develop a better understanding of how to make changes to practice by offering practical and evidence-informed recommendations for effective implementation.

6.2 Putting evidence to work

When writing up your evidence report, your writing should be guided by your Research Protocol and should focus on answering the research questions identified. You should present expected and unexpected results as this will enable further learning and facilitate the adaptation of theories of change and the interventions themselves. It is worth considering on how to sustain the consistent and intelligent implementation of your findings in future iterations of the programme. Depending on the magnitude of changes that your findings can

bring about, implementation of these can be – at the same time- tiring, energising, ambitious or overwhelming. It is therefore important to be realistic about your institutional 'implementation readiness' and whether motivation, general capacity and programme-specific skills need to be developed and built. For example, the loss of key staff or advocates can crucially change how your evaluative findings (and their consequent implementation) can be perceived, while a reduction in budgets or staff resources can limit their used.

To avoid deadlocks, it is therefore important to consider these possibilities at the early stages of an evaluation approach and to use the reflective stage of the evaluation to revisit and consider any discrepancies between the expected and actual findings. The risks and assumptions section of your ToC should thus be used to highlight contingency plans for potential turnover of staff or to consider additional funding sources to maintain the innovation over time. To ensure that these kind of stresses and strains do not affect the successful implementation of your evaluation and its consequent findings it is recommended to take regular 'pulse checks' across your key stakeholders.

Once your evaluation findings lead to the implementation of your intervention as 'business as usual' it is important to continue monitoring and tracking that implementation in order to capture how the intervention, in its full roll-out, is behaving and whether your underlying assumptions, contexts and logical chains are still matching the actual implementation in its scaled-up format.