

BILT Learning Community Team 1: Evaluating large-scale educational initiatives

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October 2019

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1. Executive Summary

The aim of this BILT sponsored Learning Community team is to focus on developing a strategy for evaluating complex change in the University of Bristol. This report reviews the literature, policies and practices of evaluating major change initiatives in the HE sector and is intended to generate discussion around this theme with senior stakeholders and contribute to the development of a strategic approach to evaluation policy at UoB. The purpose of developing such an evaluation strategy is to ensure that the benefits of educational projects and programmes can be assessed and evidenced, that the culture of evaluation can be developed and nurtured at the university, and that the institution can be a sector leader in the evaluation of large-scale change initiatives.

The conceptualisation of approaches to change and evaluation of change initiatives in the sector are reviewed and we suggest that the level of complexity of change drives the approach to evaluation. Evaluation approaches are many and varied, and seemingly depend on the type, scope and scale of the change initiatives being undertaken in an organisation or institution, including the needs of stakeholders involved. We have found a wide range of approaches to and types of evaluation which offer comprehensive, meta-frameworks for the evaluation of complicated and complex educational change initiatives in HE.

Theory of change in HE can either be implicit or explicit, but arguably is not well conceptualised in the sector. However, we have found examples of organisations conceptualising and operationalising theory of change frameworks, for use in the evaluation of complex change initiatives in the sector.

Three areas or themes are identified; widening participation (WP), teaching and learning (T&L), and employability and we have reviewed the published literature on policy and practice of evaluation in the WP and T&L domains and share the outcome of pilot projects to measure learning gain (LG) in the area of employability.

- A review of the literature in the WP domain suggests that HEIs tend to follow policy advice and guidance from the OfS to consider the strategic importance of evaluating WP initiatives and to use appropriate methods (narrative, empirical and causality) for the institution.
- HEIs have a wide range of choices in terms of approaches, methods and mechanisms
 with which to evaluate change initiatives within the T&L domain. Despite the
 assertion that theory of change has not been well conceptualised in the sector, this
 review would suggest that there are useful frameworks available should an
 institution wish to take a strategic, informed and academically robust approach to
 evaluating change initiatives.

• Employability 'gains' can be measured and used in careers service activities and may prove useful if used in parallel with other intervention and evaluation approaches and mechanisms at institutional level.

The practice of evaluating change initiatives at UoB suggests that the institution does not currently have a coherent and co-ordinated approach to the process of educational change and there is no visible recommended approach to evaluation or theory of change. It is possible that localised, discipline-specific change initiatives are developing and using theories of change, but if so, these are not yet apparent or visible at institutional level.

The recommendations contained within this report have been considered and discussed by the LC team on 30 September 2019, and we would now request that senior leaders consider this report, discuss the desired 'direction of travel' for the development of a formal institutional evaluation strategy, and confirm the next steps for the LC team.

2. Conceptualising approaches to change

2.1 Change in complex systems

Change in complex systems such as sustainable development projects on a global or international level (Kusters, et al., 2017) requires adaptive management processes in order to change complex systems. Kusters, et al. (2017) would argue that a range of approaches to managing change are possible, dependent on the type of change, the context within which change is needed and the level of involvement of stakeholders. They describe approaches to change as:

- **Simple change**: operates in the domain of 'best practice', where the relationship between cause and effect is easily identifiable.
- **Complicated change**: operates in the domain of experts and 'good practice', where there may be multiple answers or solutions, and where a clear connection between cause and effect may not be readily obvious.
- **Complex system change**: operates in the domain of 'emergent practice' and where there are multiple challenges and no certainty.

It could be argued that HEIs operate in the domain of complicated change, where there are many types of expertise, academic and operational; multiple answers or solutions to institutional challenges are possible; but where there may be no clear connection between cause and effect.

2.2 Change initiatives and interventions in the HE sector

Trowler, et al., (2014) reviewed the conceptual and theoretical underpinnings of HEFCE sponsored change interventions in enhancement activities in HEI's nationwide. Their report evaluates HEFCE-funded learning and teaching enhancement initiatives which were delivered between 2005 and 2012, and they suggest that HEFCE-sponsored approaches to enhancement interventions can be characterised by the ways in which enhancement policies, instruments, mechanisms and effects are put into practice. Defining 'enhancement' as "an increase or improvement in quality, value or extent" (ibid, p6), they conceptualise enhancement as a continuum where the change initiative is viewed as incremental (driven by a reform agenda) through to enhancement as reinvention (driven by a transformation agenda).

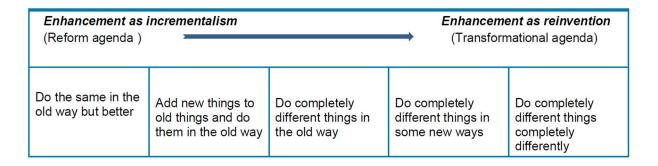


Fig 1: The Enhancement Continuum: scale and scope from Trowler, et al., (2014). The Role of HEFCE in Teaching & Learning Enhancement: A Review of Evaluative Evidence

Trowler, et al., (2014) noted that the broad scope of the enhancement agendas do not easily map onto the policy, instruments and mechansims developed by HEFCE. Further, they identify four educational ideologies behind the range of interventions along the enhancement continuum, as (i) traditional (discipline-driven), (ii) progressive (personal-development driven, student-focused), (iii) enterprise (neo-liberal market-driven) and (iv) social reconstruction (equity-driven). It is suggested that some educational ideologies are more challenging to the status quo than others, but they conclude that the change initiatives and strategies suggested by HEFCE policy and practice have been 'diverse and heterogenous' (ibid, p8). In other words, policy may influence practice in the enhancement domain, but institutions, or groups of institutions in some cases, conceive and implement change initiatives based on a variety of home-grown approaches to managing strategic change.

3. Evaluation of change initiatives and interventions

3.1 Approaches to evaluation

It could be argued that the approach taken to the evaluating the outcomes of change initiatives and interventions is dependent on the approach to managing change as discussed in the previous section. In the systems innovation change process, van Mierlo, et al., (2010) suggest that approaches to monitoring and evaluation can be:

- Results Oriented: using intervention logic, this approach can apply to projects where
 plans and objectives can be clearly identified up-front and outputs are easily
 measured.
- **Constructivist**: works on the assumption that there is more than one reality, learning and sharing experiences are central to the process, and that key actors are involved in determining the agenda.
- Reflexive: project activities stimulate the learning process in the network and contribute to a system innovation, or structural change and a new reality.

Van Mierlo, et al., (2010) suggest that the approach to monitoring and evaluation is dependent on the extent to which structural change in an expected outcome together with the extent to which contributions from stakeholders are valued in the development of a possible solution, as expressed in the figure below.

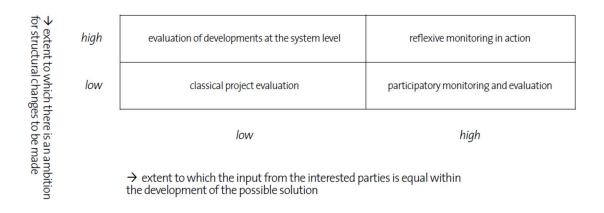


Fig 2: The key characteristics of monitoring and evaluation approaches from van Mierlo, et al. (2010).

In complex change processes as described by Kusters, et al., (2017), evaluation can also be classified as situated in a range, or continuum, of *Simple – Complicated – Complex* in nature. In a 'Simple' approach to evaluating change projects or programmes, cause and effect is straightforward and clear to all involved (Kusters, et al., 2017), outputs are measured by Key Performance Indicators (KPIs), and these output measures are derived in classical project evaluation (van Mierlo, et al. 2010) at the start of the project. In contrast, in 'Complex'

change projects, evaluation is less straightforward as cause and effect are not readily identifiable and there are multiple and complex components which may lead to outputs and outcomes which are unexpected. Evaluation in this scenario requires the monitoring of short, medium- and long-term outputs and outcomes as the project progresses, for example in 'reflexive monitoring in action' as described by van Mierlo, et al. (2010). Adopting an integrated approach to planning, monitoring and evaluation articulated by Kusters, et al. (2017), suggests that in complex projects there are no right answers, that creativity and innovation are important, and that an emergent approach is more relevant. It is reasonable to suggest that 'complicated' change initiatives and interventions, may require a blend of evaluation approaches, dependent on the level of structural change desired and level of stakeholder input valued.

Commentators generally agree that the practice of evaluation takes place within power structures. Taylor and Balloch (2005) propose that evaluation is an inherently and inescapably political project imbued with issues of power at every level, and they recommend that it is worth recognising the relationship between evaluation and governance at the outset of any programme of change (whether policy implementation or enhancement). They note that the academic evaluation theory debate between scientific realists (who argue for the possibility of an independent reality capable of objective description, and primacy of independent judgement by scientific evaluators) compete with the social constructionists (who argue that all knowledge is contextual, relative and subjective and sees evaluators as facilitators and negotiators between different viewpoints). They suggest that evaluation is a highly contested question which is subject to the same arguments between realists, relativists and others that characterise scientific social research more generally, but that where evaluation is recognised as socially constructed and politically articulated, a practical and participatory approach to evaluation may be a transformative process (Taylor and Balloch, 2005).

Some argue that the ultimate purpose for doing evaluation is to achieve social betterment, to improve the social conditions of participants of initiatives (Henry, 2003). Patton (2013) suggests that in order to ensure evaluations are used appropriately, the organisation should be prepared for utilization focussed evaluation, and the most appropriate stakeholders need to be identified and involved in the evaluation process.

Stakeholders

If evaluation is an inherently political process, then governance, implementation and participation in change initiatives is likely to involve multiple stakeholders working with different traditions and ideologies (see Trowler et al, 2014), with a variety of perspectives and experiences. Stakeholders in the process of evaluation may have differing levels of power and influence, and the approach to evaluation may be dependent on the appetite for structural change alongside the extent to which participants have an equal part to play in

development of possible solutions (van Mierlo et al., 2010). It is therefore useful to gain clarity about the balance of power, governance, participation and involvement in change projects (the 'who') ideally at the outset of a change initiative or project, and certainly when evaluation is being considered and planned.

3.2 Theory of Change

Theory of change can be implicit or explicit and where it is explicit it may be defined as "an outcomes-based, participatory method...for planning, evaluation, and organisational capacity-building" which "defines all building blocks required to bring about a given long-term goal" (www.theoryofchange.org). Theory of change is characterised as a process which develops 'programme theory' and 'logic models', and may be used to evaluate complex change where both the path and the destination are evolving (Gamble 2008), and is suited to the evaluation of complicated and complex change processes.

Taplin and Clarke (2012) suggest that theory of change can be both a planning and a monitoring and evaluation process, but that its key feature is that it is a participatory method which aims to articulate the long-term outcomes (LTO) and goals of a change project or initiative. In this approach to evaluation, LTOs are modelled as desired outcomes and are graphically arranged in a causal framework. Theory of change then describes the interventions needed to bring about the desired outcomes, with each intervention being tied to an outcome in the causal framework. The causal framework then provides a working model to test hypotheses and assumptions. The key features in this evaluation approach are the identification of causal pathways and a process of backwards mapping (Taplin and Clarke, 2012) which articulate in broad terms, what activities should lead to which outcomes, and thus it may be used as both a planning and an evaluation tool. Saunders, et al., (2005) suggest that theory of change may be used as a way of making the linkages between vision, planning and evaluation explicit and that it is a useful "bridging tool" that creates "provisional stability" in changing circumstances, by connecting planning and evaluation.

Saunders, et al., (2011) argue that HE has not conceptualised theory of change (evaluation of interventions) in the evaluation of T&L programmes. Reviewing UK T&L enhancement policy initiatives, Trowler, et al. (2005), took the view that there are many and contrasting theories of change being applied and used for analysis at four levels; at the meso-level of department and workgroup where the student - teacher interface is strongest; at the micro-or individual level where the reflective practitioner is viewed as potential change agent; at the macro-level which views change stemming from alterations in organisation routines, values and practices; and at the academic discipline or programme level. According to Trowler, et al. (2005) the implementation of HE policies for change lack coherence and often obstruct each other and what is missing is a robust theory of change at meso-level (departmental level).

In a review of the role of HEFCE in T&L enhancement, Trowler, et al., (2014) identified six theory of change approaches as depicted below.

good examples det - rational cha choice based arte	terminism – drive anging rewa efacts shape san haviours shap	en – sards and inctions	support from institutions – mission-based approaches	Professional imperative – individual drivers derived from professional values	Market-driven – consumer empowerment and choices shape system
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Fig 3: Theories of change in HEFCE interventions from Trowler, et al., (2014). The Role of HEFCE in Teaching & Learning Enhancement: A Review of Evaluative Evidence

An outline of the new standards of evaluation evidence proposed by the Office for Students (OfS), suggests a range of appropriate methods to be used from participatory monitoring to impact evaluation using randomised control trials. In WP projects and programmes, the OfS states that HEIs should consider the strategic importance of evaluation, and that senior leaders should budget for evaluation accordingly, and that institutions should seek to develop a culture of evaluation. The standards advocate for a theory of change approach to evaluation of WP activities and split evaluation methodology in to three types: narrative, empirical research and examination of causality, claiming that HEIs should adopt the most appropriate methodology for their context, objectives and in consideration of practical constraints (OfS, 2019)

3.3 Types of Evaluation

Commentators observe that programme evaluation is a research endeavour which according to Donaldson, (2007) involves the empirical assessment of the merit or worth of some organised human activity designed to bring about some positive (usually social change). Parry-Crooke and Sullivan, (2012) identify goal-free, goal-focused, participatory and realistic evaluation within a long list of evaluation types. Social-Programme Evaluation (Lillis, 2012) notes the importance of contextualising evaluation and describes both goal-based and goal-free evaluation as having benefit.

Goal-based evaluation

On the basis that change initiatives in the HE environment are likely to be both complicated and complex, it is reasonable to suggest that some type of goal-based evaluation approach is desirable. Onwuegbuzie and Hitchcock (2017) identify three types or styles of goal-based evaluation as (i) formative goals, focused on programme improvements; (ii) summative goals, focused on programme impacts; and (iii) a combination of both types. They suggest

that evaluations focusing on a combination of both types of evaluation will provide an evaluation meta-framework that is comprehensive, flexible, and meets the enhanced complexity of educational interventions. The meta-framework proposed by Onwuegbuzie and Hitchcock (2017) identifies two broad categories of evaluation methods; those which identify non-attribution effects, and which often privilege qualitative method and those which identify attribution effect (what the effect would have been without the intervention) and tend to use quantitative methods and RCTs. They recommend a comprehensive impact evaluation which adopts a mixed methods approach which they suggest highlights the importance of gathering and analysing both quantitative and qualitative data.

Participatory evaluation

Given the political nature of the process of evaluation, Cousin, et al (2005) suggest that a 'theory-driven' rather than the laborious and time consuming 'data-driven' model is recommended for participatory evaluation, and submit that the 'theory-driven' model may need to incorporate creative methods when working with groups (such as young people) that are potentially difficult to engage. Evaluators and project members work together in this model of evaluation (much as in van Mierlo et al, 2010, participatory monitoring and evaluation). Cousin, et al (2005) advocate that 'less is more' in a participatory evaluation suggesting that data-driven evaluation strategies often conflate data with evidence. They argue that a theory-driven perspective is one based on discussion and negotiation, which places evaluators and project members as teachers and learners within a shared research project, which they suggest encourages a more iterative evaluation process. Given the culture of the HE sector, approaches to change which value a collaborative, collegiate, participatory and partnership-based types of managing and evaluating change are likely to be welcomed by stakeholders in the evaluation process.

We have summarised a range of evaluation types we have identified, together with example generic evaluation questions, as a potential starting point for the development of an institutional evaluation strategy.

Needs Assessment

- What are the needs of the target population?
- To what extent are interventions meeting the needs of the target population?

Implementation and Process Evaluation

- To what extent are the interventions reaching the target population?
- To what extent are the interventions being implemented as designed?
- To what extent are the interventions being delivered as designed?
- To what extent are participants actively participating in interventions?

Outcome Monitoring

- To what extent are the interventions achieving/meeting expected outcomes?
- Are the interventions creating any unintended outcomes?

Impact Assessment

• To what extent are the outcomes of the interventions attributable to the interventions themselves and not to other factors outside of the interventions?

Cost-benefit/Cost-effectiveness Analysis

- To what extent do the costs outweigh the benefits of the interventions?
- To what extent do the costs outweigh the effectiveness of the interventions?

3.3.1 MRC guidance on evaluation of complex change

Tackling complex problems such as smoking and obesity in the domain of public health requires complex interventions to bring about improvement and change. In this domain, randomised controlled trials (RCT) represent the 'gold standard' (Moore, et al., 2015, p1) for evaluation of the outcomes of interventions. However, the complex nature of such interventions with multiple interacting components, difficulties in implementation of trials, and the variety of stakeholders involved at many different organisation levels, means that it is necessary to evaluate both the outcomes and the process of evaluation. MRC guidance

therefore recommends evaluation of both process and outcomes in the case of complex change interventions. The MRC guidance is designed for public health intervention programmes but is also relevant to health services and education, facing similar complexities, challenges and difficulties in managing change initiatives.

Process evaluation explores the relationship between implementation and what is delivered, mechanisms of impact and how the intervention produces change and whether the context affects implementation and outcomes, as represented in Fig. 5 below. Moore, et al., (2015) suggest that it is particularly useful to apply process evaluation to pilot interventions, but that it is possible to run process evaluation outcome evaluation together or separately in assessing the success of change interventions.

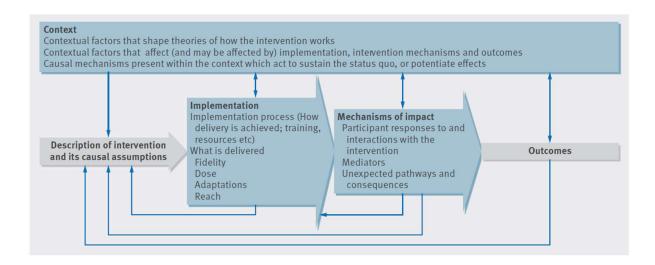


Fig 4: The key functions of process evaluation and the relations between them from Moore, et al., (2015). Process evaluation of complex interventions: Medical Research Council Guidance

3.3.2 Impact evaluation in Teaching and Learning

Measurement of impact in clinical trials in the field of public health is a relatively straightforward process as outlined in the MRC guidance discussed above. Commentators note that impact evaluation in the HE domain is difficult to define (Onwuegbuzie and Hitchcock, 2017), and that the measurement of outcomes against strategic intent is challenging and problematic in complex projects. 'Impact' in HE terms is viewed as a complex and contested concept, especially in relation to teaching and continuing professional development (CPD), so that according to Kneale, et al. (2016) there is no consensus about what constitutes impact. Critics of impact evaluation bemoan what they view as an obsession with measuring performance across the HE sector, especially in relation to academic development (Stefani, 2013), and argue that the impact agenda should

be reframed (Bamber & Stefani, 2016) to 'evidence value' with a triangulation of evidence within a specific HEI context.

There is a body of literature reported in Kneale, et al, (2016) which aims to challenge a narrow, instrumentalist approach to impact measurement and that calls for more holistic, creative attempt to discuss and determine the 'impact' of academic development. Fink (2013) observes that an assessment of 'impact' can vary according to the standpoint from which it is measured: the student, teacher, staff development unit, institution, etc. and that there are clearly issues of power at play (see Taylor and Balloch, 2005). Similarly, there are issues in relation to the collection of 'evidence' of the impact of teaching, with Cashmore et al., (2013) noting that evidence for understanding impact is complex and challenging to collect. Gunn and Fisk (2013) identify a significant gap in literature, policy and practice in connection to the relationship between models of teaching excellence, CPD frameworks and the acknowledgement that academics' careers vary over time, and they argue for a robust methodology for investigating the links between teaching excellence and student learning outcomes.

In relation to assessing the impact of change initiatives and interventions on student learning, the picture is equally complex and challenging. Evans et al., (2018) identify the challenges and problems associated with poorly understood measurement in relation to Learning Gain (LG), suggesting that there is no universal tool (or holy grail) to measure outcomes in HE. They recognise that the political appetite for educational measurements which capture value for money and effectiveness is strong and that the development of measures to assess LG in HE has an important polictical context, methodological challenges, and multiple purposes (quality assurance; accountability; and enhancement), arguing that perhaps the most important is enhancement of T&L.

The final evaluation of the OfS LG Pilot Projects (Kandiko-Howson, 2019), concurs with the view that there is no simple 'silver bullet' or universal metric to measure or assess LG. However, pilot projects in the study trialled thirty approaches to measurement of LG and found that three dimensions could be identified; (i) cognitive gain could be best captured through existing attainment data, (ii) soft skill development could most efficiently captured through surveys, and (iii) employability and career readiness best captured through careers registration. Kandiko-Howson (2019) recommends the development of multiple measures of Affective, Behavioural and Cognitive measures; to be used at multiple points in time as student experience and development change over time; and that careful use of entry and outcome measures are useful if used in context. The trade-off between usability and scalability is noted, and it is suggested that scalability depends on purpose, meaning 'why' measurement is being done and 'who' benefits from the assessment. The view from the pilot project experiences is that it is indeed possible to measure LG in these ways, but that future work on measuring LG should address both the 'why' and 'who' questions, and that there needs to be a clear rationale for their development, use and audience (Kandiko-Howson, 2019, p9). Perhaps most importantly of all, measures should be developed in

partnership with students, so that both students and institutions benefit. It is claimed that the arguments that it is too difficult to measure the complexity of student learning, are increasingly dismissed by those inside and outside the higher education sector by noting the need for multiple and diverse measures (ibid, p 40)

3.3.3 Example evaluation frameworks

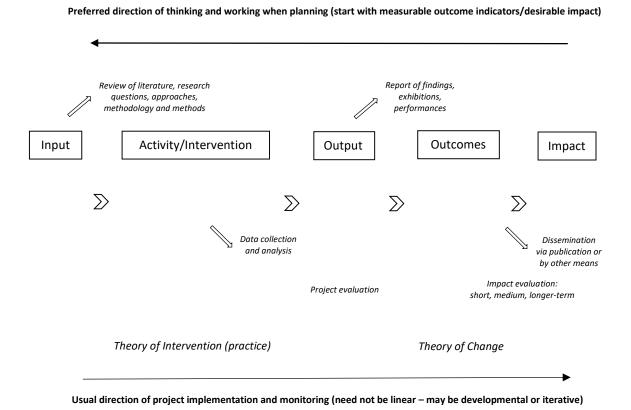
Policy frameworks

The Higher Education Academy (HEA) provides a series of strategic frameworks as a shared point of reference for the sector (https://www.heacademy.ac.uk/hub) covering transforming assessment; embedding employability; internationalising HE; flexible learning; student access, retention, attainment and progression; and student engagement. According to the HEA, these frameworks draw on extensive evidence and experience from the sector and are aligned with UK Professional Standards Framework (UKPSF). As such, they provide a view of the key thematic priorities that impact upon the quality of Teaching & Learning in the sector, and they identify the component parts of 'what' can be changed in each area, but do not provide guidance on 'how' to change practice or suggest any theory of change in this regard. Consultancy services are available from the HEA, presumably offering advice and support on planning and implementing change initiatives in the sector.

Lincoln Impact Evaluation Framework (LIEF)

Worthy of inclusion in this review is the Lincoln Impact Evaluation Framework (LIEF) which is a comprehensive framework incorporating both a theory of intervention and theory of change (Sharp, 2019). LIEF is conceived as a strategic and operational tool for both academic and professional service use in HEIs. The framework offers a user guide to impact evaluation, is supported by a comprehensive bibliography and reference guide, and can be applied across a range of interventions. The guide covers both the theory of intervention, which is explicitly stated with reference to the research literature and helps guide approach, methodology, and data collection, and the theory of change which helps predict and understand why certain mechanisms and assumptions behind interventions will work (or not) in bringing about change. Importantly, LIEF proposes that project outcomes, outcome indicators, and the measurement of impact, should be considered at the outset of a project. A range of outcome indicators is offered in terms of Affective (emotional), Behavioural (personal), Cognitive (academic), Demographic (background), and Engagement (life cycle) areas where measurable outcome indicators might be identified.

Stated purpose, intentions or scope of project including research questions



Contextual factors and assumptions including ethics

Figure 5 The Lincoln Impact Evaluation Framework (Sharp, 2019)

3.3.4 Worked examples of Theory of Change Interventions

The LIEF documentation provides two worked examples of how an institution could evaluate change initiatives; (1) considers curriculum amendments to accommodate professional accreditation requirements in sports science and (2) considers library innovation to support teaching and learning at module level (Sharp, 2019 p 15 & 16).

We have proposed a framework or guide of 'how to' evaluate major change initiatives based on experience of working in this field, presented in Appendix A.

4. Themes and levels of change and evaluation

We have reviewed examples from the literature of evaluating change initiatives in programmes of Widening Participation initiatives; Teaching & Learning enhancement initiatives; and some limited examples from the evaluation of employability LG pilot projects. We have identified three themes Widening Participation, T&L and Employability for detailed review below.

4.1 Theme: Widening Participation

4.1.1 Policy Level

Widening participation policies are subject to change. Since 2004, widening participation has shifted from the social justice oriented, collaborative focus of Aimhigher (Doyle & Griffin, 2012), to an individualistic model with orientations towards raising social mobility, with HEIs reporting to the Office for Fair Access (OFFA) using Access Agreements and Monitoring returns (McCaig, 2015). Using linked administrative datasets, Chowdry, Crawford, Dearden, Goodman, and Vignoles (2013) found attainment to be the largest predictor of higher education progression for disadvantaged young people, prompting a response from the policy maker to ensure HEIs focus elements of their WP work on raising attainment, and include details of attainment raising activities in their access and participation plans.

However, McCaig (2015) found that policy-decisions can be interpreted in multiple different ways depending on the institution, suggesting that post-1992 institutions are more likely to focus on student employability and retention, whilst Russell Group Institutions focus on recruiting high attaining disadvantaged young people. These changes can also affect the way institutions interpret evaluation requirements. It is suggested that the evaluation of Aimhigher failed to demonstrate impact in large part because institutions had differing interpretations of monitoring and evaluation, and the policy maker changed the focus of evaluation several times during the funding period (Doyle & Griffin, 2012; Harrison, 2012).

In 2017, OFFA encouraged HEIs to follow specific approaches to evaluation (Crawford, Dytham, & Naylor, 2017), with a focus on running randomised control trials (RCTs). However, when OFFA merged with HEFCE to form the OfS, the policy-maker became more open to various approaches of evaluation, requiring that all institutions provide theory of change, and a detailed evaluation strategy in their access and participation plans (*Using standards of evidence to evaluate impact of outreach*, 2019). The policy-maker would rather quality evaluation of a rational approach than poor-quality RCT's (*Using standards of evidence to evaluate impact of outreach*, 2019). Recently the OfS funded the creation of the Center for Transforming Access and Student Outcomes¹ (TASO) (with KCL, Behavioral

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¹ https://www.taso-he.org/

Insights Team, and Nottingham Trent University etc.), an organisation focused on evidencing the impact of widening participation on social mobility and student outcomes. Whilst there is a focus on RCTs and quantitative impact evaluation approaches, TASO are also interested in qualitative and mixed-methods approaches to evidencing impact.

Policy level changes means that interventions are subject to change, whether through targeting (i.e. BME), or through focus (i.e. attainment raising) (Vignoles & Murray, 2016). Therefore, evaluation of these interventions should be adaptable to these changing priorities whilst retaining rigor and quality.

4.1.2 Institutional Level

Institutions respond to policy-level changes from the OfS. From 2019 access agreements should include five year rather than one year plans for widening participation strategy and evaluation, suggesting that the policy-maker is focused on long-term goals of widening participation strategies. (*Regulatory notice 1: Access and participation plan guidance*, 2019).

However, institutional strategy is influenced by the organizational culture and the values of senior leaders (Evans, Rees, Taylor, & Wright, 2019; Greenbank, 2007). Institutional strategies for WP often include a suite of widening participation interventions delivered through the main university professional services division – these tend to include campus visits, summer schools, information advice and guidance talks in schools etc. (Harrison et al., 2018b). In addition, depending on institution type, many Russell Group and research-intensive institutions have joined compact schemes that offer high attaining underrepresented young people lower offers to their own institution if they pass the scheme (e.g. Pathways, Realising Opportunities).

In addition, many institutions such as the University of Bristol have sought to embed an ethos of widening participation as a whole institution approach, for example, through changes to the curricula and teaching and learning, supporting faculties to deliver widening participation initiatives, and investing in student wellbeing (*University of Bristol Access and Participation Plan 2019-20 (A1)*, 2018).

Most institutions have followed advice from the OfS and have set up the following systems for their WP evaluation:

 Subscribing to the Higher Education Access Tracker Database (HEAT)² or the East Midlands Widening Participation and Research Partnership (EMWPREP)³ to track individual student participants through their higher education journey and mark on their records all of the activities they have participated in at the institution.

² https://heat.ac.uk/

³ http://www.emwprep.ac.uk/

- Using internal admissions records to track individual students into their own institution.
- Subscribing to an evaluation framework such as the Network for Evaluating and Researching Participation Interventions (NERUPI) (Hayton & Bengry-Howell, 2016).

Some institutions, such as the University of Sheffield⁴, Kings College London⁵, and the University of Exeter⁶ have set up internal research and evaluation units to develop insights in to widening participation initiatives and understanding approaches to raising students' social mobility.

The list of outputs and outcomes provided below are working examples from the literature. Use of these outputs and outcomes should be considered in the context of the interventions or activities specific to your institution.

Example Outputs associated with Institutional Level Widening Participation Interventions

- Delivery of widening participation interventions to target students
- Relationships/collaborations with schools
- Employment of staff from diverse backgrounds at institution
- Investment in faculty and departmental widening participation initiatives
- Delivery of inclusive curricula across institution
- Provision of extra-curricular services for underrepresented students at institution
- Creation of widening participation research and evaluation centers
- Use of databases and systems developed for evaluating widening participation interventions

4.1.3 Departmental/Faculty Level

Many institutions have widening participation practitioners based within faculties and departments. They will feed into the institutions' targets for widening participation but will

⁴ https://www.sheffield.ac.uk/apse/wp

⁵ https://www.kcl.ac.uk/study/widening-participation/what-works

⁶ https://www.exeter.ac.uk/socialmobility/

have their own tailored targets for their faculty or department. For example, in 2014/15 the University of Bristol pledged to allocate £20K to each Faculty WP representative for the delivery of faculty level WP projects ("University of Bristol Widening Participation Strategy 2009-2016," 2009). In their 2018/19 access and participation plan, the University of Bristol stated, "in the past year we have employed five faculty engagement officers who sit within our academic faculties and deliver outreach activities." The faculty level WP initiatives are linked to the overarching institutional strategy for WP, which has attempted to embed an institutional wide approach to WP and creating a culture of access and participation across the University of Bristol (*University of Bristol Access and Participation Plan 2019-20 (A1)*, 2018). At the department and faculty level, the University committed to reviewing curricula to ensure it is inclusive and develop more flexible learning approaches to support the attainment of all students, particularly those from underrepresented backgrounds (*University of Bristol Access and Participation Plan 2019-20 (A1)*, 2018).

In their Annual Report for the academic year 2017/18 the University of Leeds outline details of their Nurturing Talent Mentoring Scheme (NTMS) delivered through the Business School where first-generation students, or students who entered the university through an access scheme are paired with a professional from industry to receive one-to-one mentoring for an academic year. According to the report, 99% of participants felt the programme was effective, but little detail was provided regarding the evaluation design (*Widening Participation: Annual Report 2017/18*, 2017).

The list of outputs and outcomes provided below are working examples from the literature. Use of these outputs and outcomes should be considered in the context of the interventions or activities specific to your institution.

Example Outputs associated with Department Level Widening Participation Interventions

- Same as institutional level but specific to faculty/department level
- Implementation/delivery of inclusive curricula
- Delivery of flexible learning approaches
- Delivery of WP interventions (i.e. NTMS at University of Leeds Business School)

Example Outcomes of Department Level Changes associated with Widening Participation Interventions

- Number of students from underrepresented backgrounds progressing to department or faculty
- Number of students from underrepresented backgrounds

- successfully completing degree in department or faculty
- Employment outcomes of underrepresented students from faculty/departments
- Ethos/belonging within faculty/department

4.1.4 Student Level

All of the WP interventions conceived of and delivered at the institutional and departmental/faculty levels seek to either change student attitudes and behaviours so they are more likely to apply and progress to the institution, or they seek to support students' capacity to develop their "capitals" i.e. NERUPI framework.

Some of these interventions begin at primary school, some at secondary school (pre-16) and some when students are studying their A-Levels (post-16). The stage at which the programmes are delivered may affect the outcomes, measurements of success, and evaluation research design. For example, for an intervention delivered to students at primary level it may take more than a decade to witness programme impact of students' access to and success within higher education, with many external factors affecting students' education related decisions in between (Harrison et al., 2018a). Indeed, students who receive an intervention in primary school may receive additional interventions throughout their secondary education from the same university, or as part of the same suite of interventions such as Aimhigher (Cummings et al., 2012).

Due to the time lag between the delivery of interventions and outcomes of success, most evaluations of WP interventions are longitudinal in nature (Harrison et al., 2018a). However, much of the research around the effectiveness of widening participation interventions on achieving intended outcomes has been criticized for lacking sufficient rigour and quality (Gorard & Smith, 2006). The strongest research has found causal links between attainment at GCSE and progression to higher education (Chowdry et al., 2013). But there is little evidence to suggest that other outcomes usually associated with widening participation initiatives such as raising aspirations cause an increase in attainment (Cummings et al., 2012).

In a study commissioned by the Department for Business, Innovation and Skills, Bowes et al. (2015) found that whilst the major determinant of HE applications is attainment at KS4, significant gaps by ethnicity remain after controlling for school effects, aspirations and attitudes and prior attainment. Qualitative data showed that decisions about progression to HE were made at an early age, namely from Y9 onwards, and were influenced by support networks, with parental involvement often leading to changes in attitudes and behaviour of their children. When students from disadvantaged and underrepresented backgrounds progress to higher education, Moore, Sanders, and Higham (2013) found that fostering a

sense of belonging is key to higher education success and retention, they stress however, that the way in which HEIs foster belonging should be differ for different groups of students.

The list of outputs and outcomes provided below are working examples from the literature. Use of these outputs and outcomes should be considered in the context of the interventions or activities specific to your institution.

Example Outputs associated with Student Level Widening Participation Interventions

- Attendance/receipt of intervention
- Active participation during intervention

Example Outcomes of Student Level Changes associated with Widening Participation Interventions (need to be contextually specific to interventions)

- Increased knowledge of higher education and routes in to higher education
- Increased awareness of higher education and the opportunities available within higher education
- Increased awareness/expectations of how to achieve aspirations
- Increased motivations to achieve aspirations
- Increased feeling of belonging in academic environment
- Increased contact for academic support from teachers/school staff,
 HEI WP staff or family members
- Achievement of required attainment at KS4
- Achievement of required attainment at KS5
- Application to higher education
- Progression to higher education
- Feeling of belonging within higher education
- Use of academic and extra-curricular services within higher education
- Successful completion of higher education
- Employment

4.2 Theme: Teaching & Learning

4.2.1 Policy Level

The purpose or key drivers of change initiatives in the domain of T&L are two-fold:

- Meeting the quality standards as prescribed by the Teaching Excellence Framework (TEF), accountability and performance of teachers and institutions.
- Improvement or enhancement activities.

Quality

According to Strang et al, (2016) the notion of 'excellence in teaching' has become more entrenched in higher education policy and in the educational strategies of academic institutions and is increasingly linked to the performance and assessment of teachers and institutions. Refinements to the original TEF at subject-level (Teaching Excellence and Student Outcomes Framework: subject-level: Government consulation response, 2018) and the roll-out of the Government's TEF, which intends to monitor 'quality teaching' is likely to have an impact on teaching practice in the HE sector. Strang et al, (2016) reviewed the literature on the subject of teaching quality and identified two key issues concerning (i) the need for a better understanding of the notion of 'quality teaching' in higher education, and how the goals and strategic priorities of the HEIs themselves incorporate these ideas, and (ii) the need for a better understanding of how 'quality teaching' might be measured or evaluated. The second issue is particularly challenging given that Pitman (2014) argues that many HEIs have struggled to define 'quality teaching' and have given up and moved on to measuring it. The literature review conducted by Strang et al, (2016) uncovered little evidence of robust evaluations of 'quality teaching' and its impact in higher education. Lodge and Bonsanquet (2014) suggest that it is not possible to objectively measure cognitive progress or the integration of new knowledge in students (although the findings from the LG pilot projects may dispute this), and as a result, there is a reliance on unsatisfactory approaches to the measurement of 'quality teaching'.

Enhancement

Trowler, et al. (2005) reviewing UK teaching and learning enhancement policy initiatives took the view that there are many and contrasting theories of change being applied and used for analysis, and that the implementation of policies for change lack coherence and often obstruct each other. Saunders, et al., (2011) claim that despite high investment in projects that enhance the quality of teaching and learning, the HE sector has not conceptualised theory of change in the evaluation of T&L programmes.

As previously noted above, 'impact' in HE terms is viewed as a complex and contested concept, especially in relation to teaching and continuing professional development. According to Kneale, et al, (2016) there is no general agreement about what constitutes impact in CPD change initiatives. Whereas Parsons (2012) found a number of small-scale studies and 'snap shots' of evaluation practices in CPD initiatives, Kneale et al, (2106) found a number of larger-scale evaluation studies and several that addressed factors affecting transfer to practice and the impact of professional development over time. They further observe that a variety of frameworks are used to evaluate CPD programmes and activity, and account for this diversity in terms of the different value systems underpinning the work which, in turn, influences which characteristics, activities, points of view, and indicators of impact that are chosen and valued (Kneale, et al, 2016).

We have identified two examples of change programmes in the domain of T&L in HE and have identified the approach to change and evaluation as outlined below.

- Transforming the Experience of Students through Assessment (TESTA), an NTFSsponsored research and development project designed to address assessment and feedback issues at programme-level, with the aim of enhancing the student learning experience, ran from 2009-2012. The project sets out a tripartite approach to change encompassing (i) a researcher orientation (rational-empirical), (ii) an interpretative hermeneutic (dialogue), and (iii) a discipline specific perspective, (TESTA, 2012). The methodology used three instruments to triangulate data, including a qualitative programme audit; a quantitative questionnaire to determine students learning behaviour in relation to assessment and feedback patterns in the programme; and focus groups to provide an explanation for some of the expereinces reported by the audit and questionnaire. The final report observes that the main impact of the programme, was as a catalyst for change for the four institutions involved, with less of an emphasis on programmes discussing post-intervention data or finding evidence of impact. This may have been due to the difficulties associated with student groups moving on, the result of the compressed timeframe for evaluation, or scepticism as to whether any real effects can be shown among the many other variables involved in the process (ibid, p25).
- ◆ Changing Learning Landscapes (CLL), programme set out to change higher education institutions' strategic approaches to technology in learning and teaching (Cullen, 2014). The programme approach to change was based on a model of partnership working, the development of a strategic conversation with the institutions involved, and programme consultants acting as a 'critical friend' to facilitate change. The project aimed to develop strategic leadership capabilities within partner institutions and win the 'hearts and minds' (ibid, p4) of stakeholders to improve student experience. This approach was felt to be necessary to achieve complex strategic change, as the success of the interventions would involve key players widely dispersed within institutions. It could be argued that this approach to managing change concentrates on the 'how' and the 'who' of the

change rather that 'what' will change as a result of the project interventions. Indeed, the impacts of the project on institutions, students and staff, were articulated in terms of possible indicators of success, expressed as principles which could be adopted by institutions. Trowler, et al., (2014) noted that CLL programme could provide a successful implementation model, crediting its collaborative nature and clear goal-directed management.

However, a review and analysis of the CLL approach and projects was undertaken by Chatterton, (2015) in order to identify trends and direction of change in relation to technology-enhanced learning (TEL) and the student experience. The review concluded that there was "little evidence of institutions setting and evaluating impact frameworks for change management approaches – this could mean that institutions have not fully thought through the strategic importance of and benefits from TEL/the digital agenda". (ibid, p12)

4.2.2 Institutional Level

As previously noted, a small number of localised studies or projects are reported in the literature, some of which are outlined below.

- Amundsen and D'Amico, (2019) examine, small-scale, institutional improvement initiatives focused on T&L in one institution. They argue that funding of change initiatives is a key driver of change and that initiatives need to demonstrate value to student and institution so that further funding can be acquired. They propose that the structure of such change initiatives mimics the standard research approach found in academia and that evaluation is assumed rather than closely examined, the links between aims and outcomes are not necessarily made explicit.
- Dickerson, et al, (2013) report on a small scale enhancement project in one school in one institution, where the purpose of the project within was to increase the support for students' reading at master's degree level. The evaluation approach for the project was based on RUFDATA (an acronym that provides the following framework for evaluation activity: reasons and purposes, uses, focus, data and evidence, audience, timing and agency) framework for evaluation (Saunders, 2000) and which evaluated process and outcomes, and the evlaution was planned from the beginning of the project.
- Saunders et al, (2005) explored the evaluation experiences of two SOCRATES
 (European-funded) projects to support innovation in T&L, especially those
 introduced by the use of information and communication technologies. The authors
 describe what happens in educational institutions where rules and practices are well
 established and a new event radically changes or challenges the traditional practices

and that argue that in times of transition and change, evaluation has a role to play in navigating change. They go on to develop change models for evaluation which result in the development of areas of changed practice which are enclaves, then bridgeheads, to the state of embedded practice.

Bamber & Anderson, (2011) explore the tensions between the needs of the
institution for evaluating learning and teaching and and the needs of individual
teachers to evaluate practice and conclude that evaluative practice is largely
autonomous and self-driven rather than following institutional policy.

Relevant change theories identified in T&L enhancement interventions

The concepts of the learning organisation (Senge, 2006, Argyris & Schon, 1978), experiental learning (Kolb, 1984), leading transformational change (Kotter, 1995), and the social learning character of projects and project teams (Sense, 2009) were identified in the literature as contributory ideas to understanding the nature of change in complex, institutional change.

4.3 Theme: Employability

As previously noted, the final evlaution of the OfS LG pilot projects reviewed nearly thirty approaches to measuring three dimensions of LG; cognitive gain, soft skills development and employability and career readiness. Kandiko-Howson (2019) proposes that employability measures can support individual student development, institutional strategies, and careers services and cross-institutional benchmarking, and further suggests that combining employability measures with progression and attainment data permits a better understanding of which factors most influence the extent and pace of gains (ibid, p20). It is noted that there may be some overlap between employability measures and some soft skills measures (including self-awareness, self-efficacy, resilience, motivation, concern, control, curiosity and confidence). Some pilot projects also identified specific competencies such as global citizenship, agility, commercial awareness, influencing, leadership, and emotional intelligence.

Pilot projects

University of Warwick: University of Cambridge strand

The wider project developed an online questionnaire, relying on self-report data, capturing multiple measures of LG (cognitive; soft skills; and employability measures) in research-intensive institutions, where it was piloted across subjects of business,

chemistry, English and medicine. The employability strand used questionnaires and qualitative data to support careers services activities focusing on employability (behavioural) measures. The pilot projects used existing, validated instruments and approaches and provided multiple approaches to measuring employability and benchmarked data across institutions. The outputs of the pilot project were most useful for careers services.

• The Careers Group

Work-readiness data has been usefully captured through a career's registration approach, operating in all subjects of study across a large proportion of higher education institutions. The approach was piloted by the Careers Group (reported in Kandiko-Howson, 2019) and involved the deployment of four careers question relying on self-report data and built into the careers services enrolment system. The pilot project developed standardised questions to explore career readiness, and these were embedded into institutional systems, providing institutions with data both to support enhancement in teaching and learning and for internal strategic use. Data from career readiness can be linked with emerging data from Graduate Outcomes to address quality, accountability and performance with regard to employability

Ravensbourne

This project piloted multiple measures of work-based learning (from Destinations of Leavers from Higher Education (DLHE) Triangulation; DLHE Plus three years; and the Solent Capital Compass Model) across multiple subjects in a number of creative vocational specialist institutions. It used multiple measures to identify student employability, gains from work-based learning and preparation activities, and developed recommendations for sector bodies about wider measures of employability (resilience, career sustainability and career satisfaction) and the need for multiple survey points. The pilot project identified challenges of data collection across small, specialist institutions together with the difficulties associated with quantitative analysis across small programmes.

Overall, according to Kandiko-Howson, (2019) the careers registration methodology is being used at over sixty UK institutions, but the work of the employability-focused projects was mostly used within careers service units and did not form part of teaching and learning activities. Some extended analysis (e.g. with Destinations of Leavers from Higher Education (DLHE) data) with potential institutional impact was affected by a switch to the Graduate Outcomes record. However, the report claims that the high voluntary take-up of the approach to measuring employability gains indicates that institutions have found the

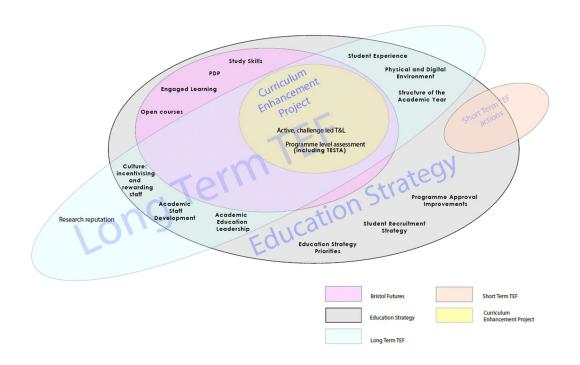
approach useful. Overall, the report concludes that employability data can prompt students to reflect on their development and can be used by careers staff to support students. It could be used to enhance teaching and learning if shared with teaching staff and embedded into the curriculum. If employability gains can be measured as suggested by the pilot projects, it seems that evaluation of interventions to enhance employability 'gains' for students is possible.

5. Current University of Bristol practice

The Learning Community Team produced an initial map of change initiatives believed to be underway in the University. Researchers consulted with senior members of the Academic Services team (Paula Coonerty, Academic Registrar & Director of Education Services, and Sarah Davies, Executive Director of BILT/Director of Education Innovation) to review the initial map of initiatives and to explore the research questions below.

- What are the existing documents in UoB that detail the approaches to/process of educational change/evaluation methods?
- Which levels do these apply to? (e.g. university, faculty, department, unit)
- At what level do they detail policy and process?
- What examples are there of recent large-scale educational change in UoB, and how are these documented?

The map of change initiatives was updated (Aug 2109) and is shown below. Researchers noted that the landscape of change initiatives is evolving reasonably rapidly and that there is no consistent, prescribed approach to the process of educational change in UoB. Consequently, there is no recommended approach to evaluation, theory of change or available documentation to illuminate this process.



To note

- PA Consulting undertook a review (early in 2019) of academic change initiatives and produced a logic map, and an approach to theory of change for the Education Committee's review. It seems that this was a desk-based review and was put on hold due to the appointment of Tansy Jessop, (Pro Vice Chancellor Education).
- The suite of projects and programmes depicted on the initiative map are not necessarily managed in a coherent and co-ordinated way.
- Local enhancement initiatives are encouraged, such as the Learning Community Team projects, and are usually funded for a twelve-month period.
- Researchers are aware that the Engineering Education Research Group (Lucy Berthoud & Thea Morgan) is currently engaged in a project to review how Engineering is taught in a combined first year programme and is likely to have adopted its own discipline specific approach to initiating and evaluating change. The EERG's stated aim is for Bristol to be one of the leading UK institutions for engineering education practice and pedagogy. The web page states that the Group "will develop and support educational initiatives that inspire students to excel, enhance their learning experience and equip them with the skills needed by future employers" but provides no further detail of its approach to managing change initiatives or to evaluation practices.
- APQO carries out a range of functions in relation to quality and enhancement
 activities within the university, including the development and approval of
 programme and unit specific changes, and there is currently a draft policy on unit
 evaluation in circulation.
- Where a theory of change approach is being used by research and discipline specific groups such as the EERG, it is not necessarily the case that these are shared throughout the institution/UoB.
- Both the Education Strategy programme and Curriculum Enhancement project are currently in development. For example, the TESTA programme is getting underway and will use the programme's tried and tested approach to managing change and is likely develop an appropriate theory of change/evaluation approach.
- The role and structure of BILT itself is evolving, with Curriculum Enhancement projects funded for one year, CREATE now part of BILT, and senior academic posts advertised for Associate Professor in Learning & Teaching and Lecturer in Academic Development.

6. Conclusions and recommendations for discussion

We have reviewed a range of published literature, external HEI practices, and internal, UoB practices in the area of evaluating major change initiatives. We conclude that:

- Evaluation approaches are many and varied, and seemingly depend on the type, scope and scale of the change initiatives being undertaken in an organisation or institution. We have found a wide range of approaches to and types of evaluation which offer comprehensive, meta-frameworks for the evaluation of educational change initiatives in HE.
- Theory of change in HE can either be implicit or explicit, but arguably is not well
 conceptualised in the sector. However, there are useful examples of organisations
 conceptualising and operationalising theory of change frameworks, for use in the
 evaluation of complex change initiatives in HE and public health (for example MRC
 guidance and the Lincoln Impact Evaluation Framework)
- Evaluation is an inherently political process and stakeholders have a key role to play
 in determining what changes, how it is changed and what approaches to evaluation
 are employed.
- Participatory evaluation and collegiate, collaborative and partnership approaches appear to be favoured in the sector, particularly in relation to evaluation of teaching quality and enhancement initiatives.
- Impact evaluation is particularly contentious in the field of teaching and learning, although there is evidence from the OfS pilot projects that LG can be measured in three key areas: cognitive, soft skills & employability.
- HEIs tend to follow policy advice and guidance from the OfS to consider the strategic
 importance of evaluating WP initiatives and to use appropriate methods (narrative,
 empirical and causality) for the institution. OfS considers that good quality,
 academically robust approaches to evaluation are to be encouraged, and institutions
 largely follow this guidance establishing systems and processes to evaluate progress
 in WP.
- HEIs have a wide range of choices in terms of approaches, methods and mechanisms
 with which to evaluate change initiatives within the T&L domain. Despite the
 assertion that theory of change has not been well conceptualised in the sector, our
 review would suggest that there are useful frameworks available should an
 institution wish to take a strategic, informed and academically robust approach to
 evaluating change initiatives.
- Employability 'gains' can be measured and used in careers service activities and may prove useful if used in parallel with other intervention and evaluation approaches and mechanisms at institutional level.
- UoB does not currently have a coherent and co-ordinated approach to the process of educational change and there is no visible recommended approach to evaluation or

theory of change. It is possible that localised, discipline-specific change initiatives within UoB are being used, but if so, these are not yet apparent or visible at institutional level.

Recommendations

- UoB considers the development of a strategic, coherent, consistent and programmatic approach to managing and evaluating academic change initiatives.
- Evaluation approaches, methods and theory of change are considered at the outset of organised change initiatives and programmes
- Theory of change can be used as a planning and evaluation tool, and should be amongst the first activities in any strategic UoB change initiative, project or programme
- Stakeholders are consulted on project planning, monitoring and evaluation for change initiatives undertaken at UoB and a collaborative, collegiate, participatory approach to evaluation is encouraged, whilst retaining the capability to conduct independent evaluations as appropriate.
- Senior leaders consider this report, and discuss the desired 'direction of travel' for development of a formal institutional evaluation strategy and confirm the next steps for the LC team.
- Senior leaders consider which student outcomes should be prioritised in the evaluation these can range from affective (emotional), behavioural (personal) and cognitive (academic) outcomes.

Learning Community Team

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APPENDICES

Appendix A: Example Theory of Change for Interventions

The following questions have been influenced by a systematic approach to evaluation and the creation of programme theory detailed by Rossi, Lipsey, and Henry (2019) in the textbook Evaluation A Systematic Approach.

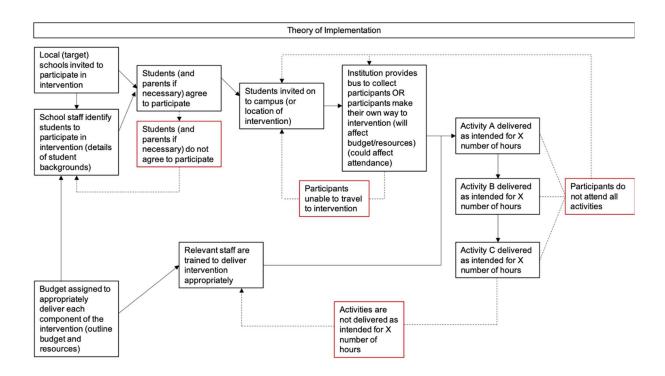
Step 1: How is your intervention intended to be implemented?

Cummings et al. (2012) highlight the effects of mentoring programme's on participants' attitudes and attainment and stress the effects of the interventions' success based on its implementation and delivery. They provide an example from Herrera, Grossman, Kauh, Feldman, and McMaken (2007) who stress that mentoring interventions were more likely to be successful if they lasted more than one year and stretched throughout the summer holidays, that mentors were provided sufficient training to develop effective mentoring relationships with participants. This example highlights the importance of examining the effects of programme implementation, often detailed in logic models under outputs. If an impact evaluation fails to pick up an effect, this may be due to a failure in the programme implementation and delivery, and not necessarily a failure of the programme itself.

Questions to consider:

- Who are the target participants?
- How are they being targeted? Is there an application process? How might this affect how participants participate and receive the intervention?
- Where is the intervention intended to be delivered? Will participants have to travel to participate?
- How many components/activities are there to the intervention?
 - Are they delivered separately or at the same time?
 - Are they delivered by the same person, multiple people or different people at each stage?
 - How long should each of the components/activities last?
- How are the activities intended to be delivered?

Example of a fictitious, general, non-specific widening participation intervention – theory of implementation.

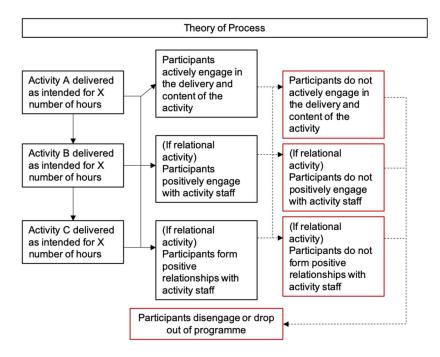


Step 2: How are participants expected to participate and engage with the intervention?

Questions to consider:

- Do participants work in groups or one on one?
- Is the programme relational (i.e. mentoring) or focused on providing information, advice and guidance?
- Where is the location of the activity? How might this affect student engagement?
- Is the intervention delivered face to face or via technology (i.e. online)?

Example of a fictitious, general, non-specific widening participation intervention – theory of process.



Step 3: What are the expected outcomes as a result of participation in the intervention?

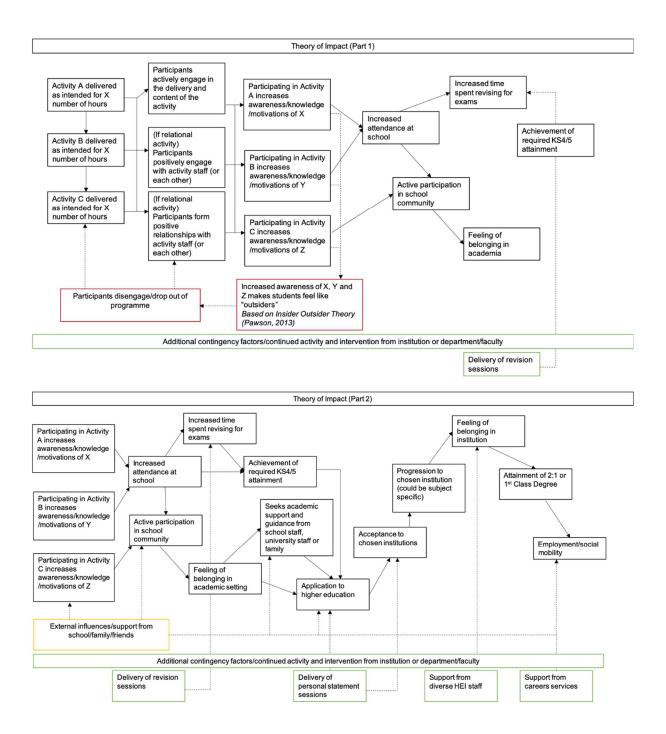
Questions to consider:

- How does each component/activity of the intervention contribute to specific outcomes?
- What is it about the delivery of the intervention that generates expected outcomes?
- What is it about the way participants participate in the intervention that generates expected outcomes?
- How do short-term outcomes connect to or support the generation of other medium or longer-term outcomes?
 - What are the underlying mechanisms that cause x to create changes in y?
- What are possible unintended outcomes of the intervention?
- When are outcomes expected to occur? What is the timeline?
- Are the expected outcomes based on practitioner knowledge and experience and/or academic literature?

Example of a fictitious, general, non-specific widening participation intervention – theory of impact using outcome chains (parts 1 and 2)

NOTE: This example of a theory of impact has kept changes in awareness, knowledge and motivation in one box as a working example of what may be included in a theory of change for a widening participation intervention. Many evaluators have different perspectives about what types of outcomes are causally related and affect behavioral change. Ultimately, the way in which you choose to connect outcomes to one another may be dependent on practitioner intuition, and the academic theories that you identify with most regarding how behaviors and attitudes produce change. An example of different theories of behavioral change can be found here:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/498065/Behaviour_change_reference_report_tcm6-9697.pdf



Using theory of change

The outputs and outcomes present in the theory of change may determine which
questions you focus on and the type of evaluation you conduct. Some outputs and
outcomes may be easier to measure than others. This may also be affected by the

resources and budget allocated to the evaluation and the needs of the evaluation from relevant stakeholder groups within the institution.

- Theory of implementation can be used to conduct an implementation evaluation
- Theory of process a process evaluation
- Theory of implementation and process can be used to determine the extent to which needs are being met (form of needs assessment)
- o Theory of impact can be used to identify outcomes for monitoring
- Theory of change (all theories combined) can be used to determine how to conduct an impact evaluation

• Questions to consider:

- O What type of evaluation do we want to conduct?
- O Which outcomes are we most concerned with?
- O How measurable are the outcomes? Are the outcomes well defined?
- What is the best way, considering resources and staff capacity, to measure the outcomes?
- o Which outcomes need constant monitoring?
- Do we want to attribute outcomes to the intervention? Given our resources and capacity, what is the best methodology to do that?

Theory of Change

Combining the theories of implementation, process, and impact shows the overarching theory of change. The theory of how the delivery and participation in the programme works and generates intended (and possible unintended) outcomes.

