



UNIVERSITY OF
LINCOLN

Lincoln Academy of
Learning and Teaching

Impact Evaluation in Higher Education: The Lincoln Impact Evaluation Framework (LIEF)



Executive summary

This document provides an essential introduction to the strategic and operational benefits of employing impact evaluation for all academic and professional services colleagues looking to undertake and improve the quality of staff-, student- and/or stakeholder-facing projects and other relevant activities across the university and beyond. As a user-guide aimed first and foremost at those individuals and teams who find themselves in the position of needing to know more about the language, terminology and process of impact evaluation as a whole, it should also be of use to more experienced staff who might never have thought about impact evaluation as an integral component of their work. At the heart of the document, underpinned by the university's overall mission and strategic ambition, sits the *Lincoln Impact Evaluation Framework or LIEF* (considered in detail in Section 5 with two worked examples presented in Section 7).

While impact evaluation is not a pre-requisite for all projects, it should, nevertheless, form a central part of all planning discussions and incorporated wherever appropriate for the purposes of supporting project management, decision making and getting results, and when the transferability of 'what works and why', in conjunction with, for example, building a case for excellence in teaching, learning, assessment and other pedagogical and operational practices, is involved. The adoption of *LIEF* is therefore recommended for use in all instances where impact evaluation rather than project or process evaluation is considered more beneficial and when the widespread implementation of findings is anticipated.

An introductory bibliography and reference guide has also been prepared to accompany *LIEF* and where further reading can be found. As working documents, both the framework and the bibliography are expected to evolve over time with the ongoing input of colleagues engaged with their use. From the very outset, *LIEF* is presented from a perspective rooted in critical and pragmatic realism and the view that our immediate experience and perception of the world can be understood and manipulated for the better.

While CPD activities intended to support the adoption of *LIEF* are included, its use may also require formal staff development which is available from the Lincoln Academy of Learning and Teaching (LALT) upon request: <https://lalt.lincoln.ac.uk/>.

Professor John G. Sharp

Contents

Title	Page
1. Introduction	3
2. A philosophical perspective	3
3. Useful definitions	4
4. When impact evaluation is required	6
5. The Lincoln Impact Evaluation Framework (LIEF)	7
6. Guiding questions	12
7. Worked examples	15
8. Approaches, methodologies, methods and sampling	17
9. Ethical considerations	20
10. Writing impact evaluation reports	21
Figure 1 The five stages of planning for impact	8
Figure 2 The Lincoln Impact Evaluation Framework (LIEF)	10
Figure 3 Entrustable professional activities	15
Figure 4 Bibliotech e-Books	16
Table 1 Definition of key terms	5
Table 2 Common themes in Higher Education research	7
Table 3 The basic elements of LIEF	11
Table 4 Areas of change and measurable outcome indicators	12
Table 5 The case-study approach	18
Table 6 The interview as a research tool	19
Table 7 The questionnaire as a research tool	20
Appendix: CPD impact activities	22

1. Introduction

- 1.1 This document provides an essential introduction to the strategic and operational benefits of employing impact evaluation and the *Lincoln Impact Evaluation Framework (LIEF)* for all academic and professional services colleagues looking to undertake and improve the quality of staff-, student- and/or stakeholder-facing projects and other relevant activities across the university and beyond. As a user-guide aimed first and foremost at those individuals and teams who find themselves in the position of needing to know more about the language, terminology and process of impact evaluation as a whole, it should also be of use to more experienced staff who might never have thought about impact evaluation as an integral component of their work.
- 1.2 Adoption of the *Lincoln Impact Evaluation Framework (LIEF)* makes an important contribution to the university's overall mission and strategic ambition:

[t]o be a global 'thought leader' for 21st Century Higher Education; to be known for addressing the opportunities and challenges presented by the changing world by developing a new approach to education and knowledge development and to build on our reputation for excellent student engagement which prepares our graduates for their future, working closely with our communities to ensure valuable impact from our research to make a meaningful contribution to our world.

2. A philosophical perspective

- 2.1 For those with an interest in the philosophy of Higher Education, the document is written and presented from a perspective rooted in critical and pragmatic realism and the view that there exists an objective social and physical reality beyond our immediate experience and perception of the world that can be understood and manipulated for the better, benefiting all staff, students and other stakeholders in the context of the university as a whole.
- 2.2 From within this perspective, *LIEF* adheres to and promotes the values and principles of equality, integrity, openness, honesty, social justice, a shared responsibility towards professionalism, the achievement of excellence and staff, student and community engagement. That said, any approach towards impact evaluation must remain guarded in its claims, mindful of its limitations and tentative in extending its legitimacy beyond the individuals directly involved, and that what appears to work in some situations and settings may not necessarily work to the same extent, if at all, in others, despite their similarities. It should, nevertheless, be entirely possible to anticipate a commonality associated with findings, while acknowledging the boundaries of a

project's effectiveness, and to help better understand the generalisation and transferability of outcomes into other areas of work.

3. Useful definitions

- 3.1 As often happens in most disciplines and across all areas of Higher Education activity, finding consistency in definitions and meaning is not unproblematic. Impact evaluation in Higher Education is defined here, therefore, as the creative and organic process by which anticipated project goals and their sustainable benefits can be visualised, mapped and achieved effectively as a direct result of planned activities or interventions that facilitate change in a particular context, and that the explanatory or causal links and pathways involved in change can be easily identified, clearly understood and robustly interrogated. Defined in this way, the use of the term project may be taken to include the development of any new courses or programmes of study, the introduction new policies and the intended adoption of any other new or relevant initiatives. The term impact may also be extended to include the reach and significance of work undertaken as a result of its dissemination to any audience within or beyond the institution itself.
- 3.2 Despite a common association with quantitative and mixed-methods project designs, impact evaluation also has a firm place in qualitative research, the nature of which provides richness and depth to any study, while emphasising authenticity and participant voice.
- 3.3 Other terms often used and confused alongside impact evaluation are expanded upon here for clarity and to help disentangle some of the uncertainties surrounding their everyday use (Table 1).

Term	Meaning
Monitoring	An ongoing review of progress which may take place at any time from initial project design to completion; allows for adjustments or corrective measures if required and/or interim reporting at key points or milestones.
Benchmarking	The practice of comparing one feature of a project against another identified as a point of reference or standard; may be internally or externally determined.
Evaluation	A systematic investigation undertaken for a purpose (e.g. to determine a project's worth); a component of change management ideally achieving a balance between methodological rigour and meaningful practical application.
Project or process evaluation	Probably the most common form of evaluation; tends to consider project output with reference to specific aims, objectives and targets or focuses on the process of project delivery and the conditions under which a project was undertaken (e.g. the introduction of a new means of module assessment and how it was implemented and received rather than its impact on, for example, closing an identified attainment gap within a particular demographic); may be diagnostic, formative or summative (includes the interim or 'progress evaluation' of the movement towards a target if a timeline is specified).
Impact evaluation	Most commonly, a form of theory or logic-based evaluation which, at its best, focuses on and describes (qualitatively) and/or measures (quantitatively) the pre-determined or anticipated outcomes and influences of change brought about by specific activities or interventions (syn. treatments) incorporated for purpose and not by other means (e.g. novelty, maturation and/or natural exposure); an important extension of project or process evaluation which attempts to minimise the effects of extraneous or confounding variables with a view to establishing effective relationships and/or causal links and pathways; asks who, what, where, when, why and how questions (5WH); designs tends to be detailed but can take many different forms; the use of a comparison or control group is preferred (e.g. comparative, quasi-experimental and experimental designs and randomised controlled trials) but not always available (e.g. baseline/midline/endline and pre-/post- designs or other designs employing methodological triangulation or recourse to inference, assumption and argument).
Dissemination	With the context of impact evaluation, the means by which project outcomes and claims to the influence of change is communicated to others beyond the immediate project team (e.g. marketing and press releases, social media use, the Internet, public and community events, conferencing, exhibitions, performances, reports, publication in professional and/or academic journals); both internal and external dissemination helps achieve reach, significance, visibility and recognition/acknowledgement of work; may take place at any point in the lifetime of a project.

Table 1 Definitions of key terms

4. When impact evaluation is required

4.1 While impact evaluation is not a pre-requisite for all projects, it should, nevertheless, form a central part of all planning discussions and incorporated wherever appropriate for the purposes of supporting project management, decision making and getting results, and when the transferability of ‘what works and why’, in conjunction with, for example, building a case for excellence in teaching, learning, assessment and other pedagogical and operational practices, is involved (including policy implementation). The adoption of *LIEF* is therefore recommended for use in all instances where impact evaluation rather than project evaluation is considered more beneficial and when the more widespread implementation of findings is anticipated. Situations involving projects where impact evaluation is required might arise when:

- Initiating a dialogical and critically reflective approach to discussion and debate
- Developing new insights and novel perspectives associated with improving practice
- Conducting a needs analysis at School, College or institutional level (e.g. induction, curriculum development, teaching innovation, assessment for learning, learning gain, employability)
- Improving the design of an earlier pilot, developmental project or innovation
- when scaling-up a pilot project with proven benefit or impact (or to stop a project with no impact which is wasteful of resources)
- Moving from a perspective based around satisfaction to evidencing benefit and value
- Learning lessons from earlier mistakes to improve upon or make things better (e.g. abandonment, refinement, redesign)
- Making clear often ‘hidden’ mechanisms, assumptions, linkages, intentions or expectations
- Sharing an understanding of project components and how they inter-relate
- Determining the merit, worth and/or significance of chosen goals or courses of action (SWOT: Strengths, Weaknesses, Opportunities and Threats)
- Testing the feasibility or effectiveness of interventions lacking an existing evidence-base (including ‘single-shot’ studies, cross-sectional studies or longitudinal studies)
- Comparing the effectiveness and/or efficiency of one project against another of a similar type
- Looking to achieve or strategically align institutional aims, objectives, goals or other intentions including KPIs (accountability)
- Looking for valid (authentic), reliable (trustworthy) and representative information to communicate to others
- Looking to promote successful School, College and other institutional innovations on a national or global stage
- Looking to attract internal funding, external funding or consultancy with impact a desirable outcome

4.2 Within the university, and for the purpose of classification, staff-, student- and/or stakeholder-facing projects which might require impact evaluation may be conveniently grouped into a small number of overarching themes (Table 2).

Theme	Guiding concepts and ideas
Teaching and learning	Phenomenography, HE pedagogies, approaches to studying, the Scholarship of Teaching and Learning (SoTL), assessment for learning.
Course design	Academic literacies, activity systems, threshold concepts, problem-based learning.
The student experience	Access and participation, transitions into and throughout higher education, the first-year experience, the transition to work or further study, social inclusion, the student as producer, international students.
Student engagement	Identity, capital, student retention and progression, academic attainment and attainment gaps, B-, M- and D-level factors, achievement-related emotions.
Quality	Quality assurance, module and course evaluation, the student as customer/consumer, student satisfaction, university rankings and league tables, marketisation, privatisation, internationalisation, globalisation, growth, REF, TEF, NSS.
Institutional management	Managerialism, collegiality, institutional mission, academic drift and institutional isomorphism, governance, third space activity.
Academic work	Lecturer self-efficacy, tribes and territories, communities of practice/practitioners/scholars, the research/teaching nexus, academic well-being, professional development, interdisciplinarity, professionalism and professionalisation.

Table 2 Common themes in Higher Education research

5. The Lincoln Impact Evaluation Framework (LIEF)

- 5.1 Impact evaluation should always be considered from the moment a project is conceived and not retrofitted afterwards when it may be too late. The same general principle applies to other areas of project design including which methods of data collection and analysis are employed.
- 5.2 While many different approaches to considering the value of projects are available, almost all are suitable for impact evaluation in one way or another. This is true even when a comparison or control group may not always be available. At its most basic, the process of planning for impact can be considered in terms of five easy to remember stages (Figure 1).

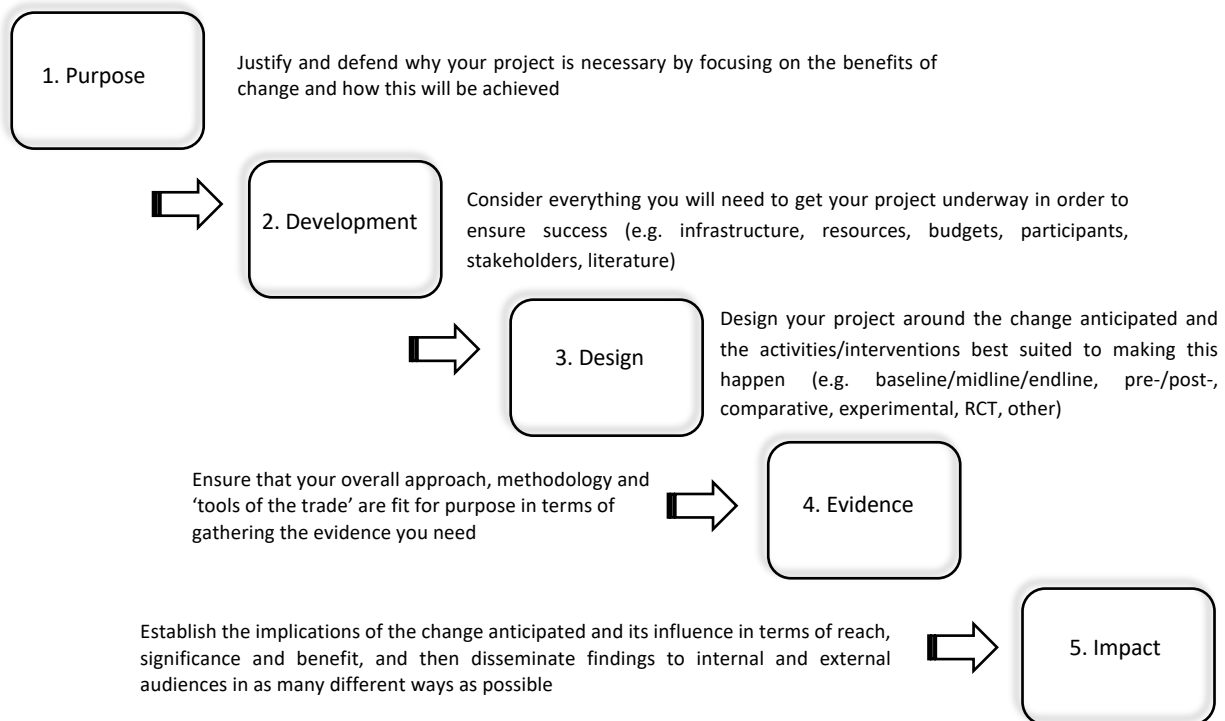


Figure 1 The five basic stages of planning for impact

5.3 In recent years, impact evaluation models incorporating theories of intervention and change and logic (inference-assumption-argument) and have become increasingly popular. Despite their apparent differences, these are readily amenable to integration and further development. The *Lincoln Impact Evaluation Framework (LIEF)* presented here represents one such innovation. Making an important contribution to the work of the university, adopting *LIEF* will help:

- Improve the clarity of thought associated with project conception
- Ensure a systematic line of enquiry when a need for change has been identified
- Provide a detailed and internally consistent project narrative by making explicit what is often implicit, including the relationships or inter-connections between different project elements
- Incorporate the effective use of SMART targets (Specific, Measurable, Achievable, Realistic and Time-bonded)
- Identify the outcomes, outcome indicators and levels of outcome measurement needed by identifying key data requirements and metrics

- Involve evaluation early on in the lifetime of a project by building it in around the project's vision and intentions or goals
- Take a project beyond simply asking 'Did it work' or 'Did we achieve what we set out to achieve?' by focusing specifically on outcomes and their impact
- Keep all participants on task with a common understanding of anticipated events, embodying the thinking behind how things work and why things are expected to happen and when (including the identification of barriers to success and how these can be minimised)
- Maximise the use of findings both internally within the institution and externally across the wider academic community and other stakeholder groups
- Ensure that the project and its findings are recognised at an appropriate level within the institution and that the evidence-based findings and changes are implemented across the institution where relevant

5.4 At one level, *LIEF*, like all other impact evaluation frameworks, is nothing more than a shared visual/pictorial/graphical representation or blueprint of project intentions (syn. with road map, concept map and story board), including what you as the project lead or evaluator hope to accomplish and the desired change anticipated as a direct result of planned activities or interventions. At another level entirely, the incorporation of clearly articulated theoretical positions supported by logic (inference-assumption-argument) affords greater confidence in the validity (authenticity), reliability (trustworthiness) and transferability of findings as indicated.

5.5 Theory, within the context of impact evaluation, encapsulates its own variety of meanings. For the purposes of *LIEF*, theory can be thought of in scientific terms as possessing the ability to generate predictions allowing for the testing of specific hypotheses. Theory can also be thought of more broadly, as it might in the social sciences, humanities and arts, as a model or even an idea possessing the ability to help make sense of, interpret or shed new light on anticipated phenomena within an explanatory or conceptual framework. In terms of a theory of intervention (practice theory or the very nature of practice itself), this will require recourse to the educational, psychological and sociological literature or the literature of other disciplines and the nature of disciplinary practice as required (e.g. employing the concept of legitimate peripheral participation from within Lave and Wenger's Communities of Practice/Practitioners/Scholars or the as yet untapped potential of Control-Value and Self-determination theories which have particular application when attempting to understand student engagement). With reference to the theory of change, this might be a simple propositional statement of the form '*If ... [e.g. output, participation, experience] ... then ... [outcome, benefit, impact]*'. In developing a theory of change (be that a model, an idea or, indeed, a theory), careful consideration should always be given to understanding why a particular intervention is necessary, understanding the process of

change involved and what benefits and other impacts will arise in the short-, medium- or longer-term.

5.6 Superimposing more conventional project terminology and design features on *LIEF* for orientation (e.g. review of literature, research questions, data collection and analysis, reporting and disseminating findings), the basic framework schematic is presented as shown (Figure 2). All of the individual elements of *LIEF* are also presented and described in detail (Table 3). While perhaps daunting to look at initially, the framework is easier to understand and use than might at first appear (see also Section 7 for two worked examples).

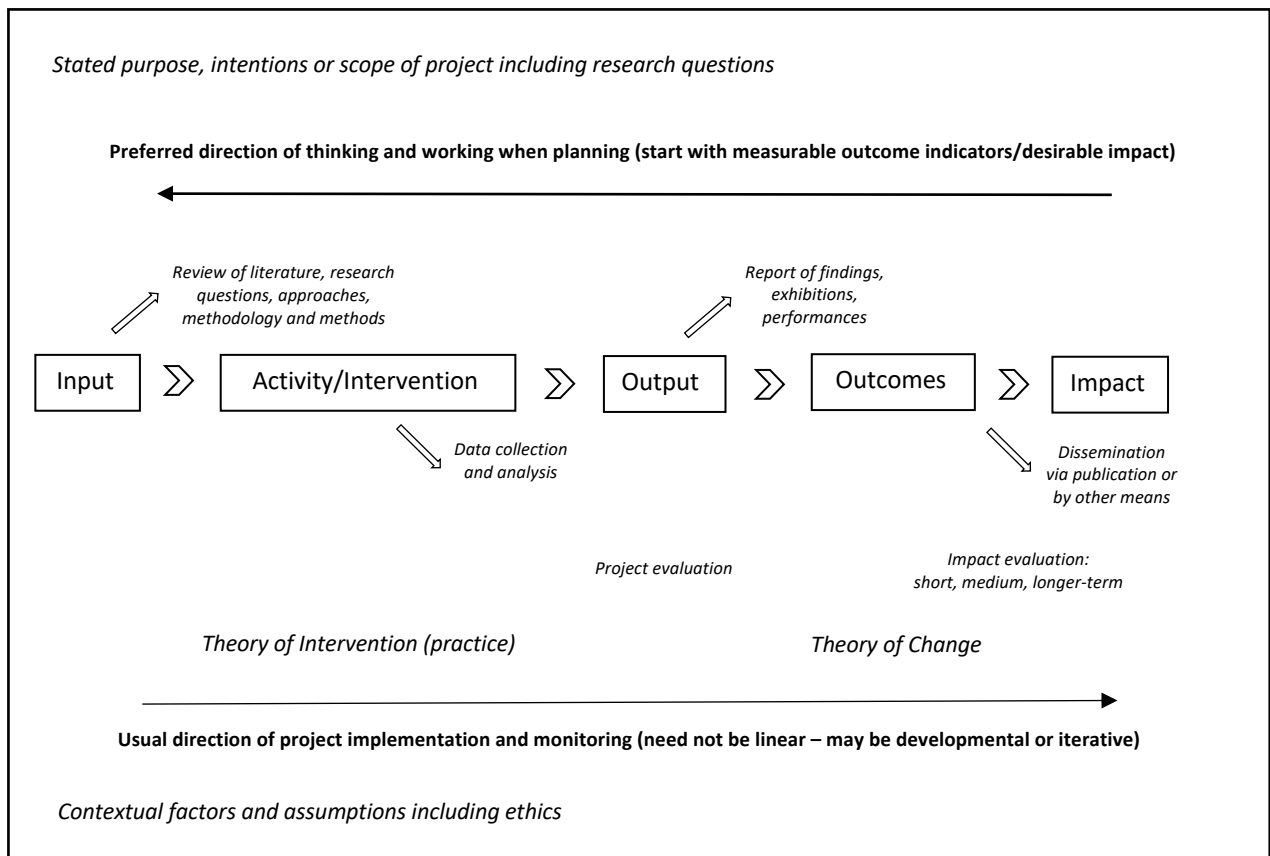


Figure 2 The Lincoln Impact Evaluation Framework (LIEF)

5.7 While the framework may convey a simple sense of linearity and determinism associated with how it appears (the logical dimension), nothing could be further from the truth (the complexity of intervention and change).

Element	Description
Stated purpose, intentions or scope	Understanding what you are trying to achieve, including why an activity/intervention is necessary or important; clarifying aims, objectives, goals and research questions; considers benefits and beneficiaries.
Contextual factors and assumptions	Political, social, legal, ethical and environmental; stakeholders, collaborations and conflicting agendas; identification of extraneous or confounding factors/variables that may need to be accommodated.
Theory of intervention	Practice theory or the nature of practice more literally; explicitly stated with reference to the research literature gives meaning to a project; helps guide approach, methodology, methods and data collection.
Theory of change	Explicitly stated helps predict and understand how and why the mechanisms and assumptions behind particular activities/interventions will work in bringing about change (or not); helps to open up 'black box' thinking in design and planning which may result in unintended or unforeseen outcomes; helps establish and defend explanatory links and/or causal pathways; may be developed in consultation with key stakeholders; more likely a model, an idea or a propositional statement of the form 'If ... then ...' than an actual theory.
Input	The physical, human and financial resources or other investments involved to support the project and its activities/interventions including infrastructure; roles and responsibilities; review of literature relevant to stated purpose or scope and research questions; choice of approach, methodology and methods; what you will do and how.
Activities/interventions	The actions, events and/or processes undertaken to bring about change and its relevance to outputs, outcomes and impact; includes data collection and analysis based on selected approach, methodology and methods.
Output	What will be produced from the project and its delivery including direct services, workshops, demonstrations, bulletins, fact-sheets, handbooks, web pages and a report or other form of output including exhibitions and performances.
Outcomes and measurable outcome indicators	What you want to achieve; the most desirable and direct (or indirect) enhancements, uses and effects of output and change, and how these will be realised, presented, described, measured and explained; usually expressed by way of outcome indicators which serve to identify suitable metrics where appropriate.
Impact at School, College or institutional level and beyond	The influence and benefits of what will change pre- to post-project as a direct (or indirect) and intended (or unintended) consequence of the planned activities/interventions and their outcomes in the short-, medium- and longer-terms, and how this will be disseminated/ communicated to others; may require implementation management.
Logic	Inference-assumption-argument; helps underpin the internal coherency and inter-connectedness of all project elements and their anticipated interactions.

Table 3 The basic elements of *LIEF*

5.8 One feature of *LIEF* worthy of note and special mention concerns the preferred direction of thinking and working when planning, with project outcomes, outcome indicators and how these will be measured and impact considered first and from the outset. Working backwards or in reverse order through the different project elements is central to the design process and will improve the overall coherency and quality of the project. For most projects involving staff, students and other stakeholders in particular, the range of outcome indicators available are best considered in terms of five easy to remember dimensions (Table 4): Affective, Behavioural, Cognitive, Demographic and Engagement (A-E).

Affective (emotional)	Behavioural (personal)	Cognitive (academic)	Demographic (background)	Engagement (life cycle)
Happiness	Attitude	Curriculum	Age	Motivation
Enjoyment	Aspiration	Teaching	Gender	Attendance
Hope	Autonomy	Learning gain	Sexual orientation	Access
Relief	Commitment	Assessment	Disability	Participation
Boredom	Employability	Knowledge	Socio-economic	Health
Anxiety	Graduateness	acquisition	status	Wellbeing
Anger	Identity	Cognitive skills	POLAR	Recruitment
Hopelessness	Communication	Problem-solving	Care leavers	Induction
Frustration	skills	Peer assessment	Estranged	Retention
Fear	Collaborative skills		students	Progression
Shame	Practical skills		Gypsy, Roma,	Completion
Confidence	Friendships		Traveller	Placements
Belonging	Self-efficacy		Refugees	Work experience
			Military families	Culture

Table 4 Areas of change within which measurable outcome indicators might be identified

5.9 While standardised instruments and data handling software packages are available to address many outcome indicators in detail (e.g. SPSS with questionnaires and NVivo with interviews), it may also be necessary to incorporate more bespoke methods or the use of other technologies as appropriate.

6. Guiding questions

6.1 Guiding questions matched to the five stages of planning in order to better understand the processes involved when approaching impact evaluation using *LIEF*, noting the order to match the direction of thinking and working when planning, are provided.

Purpose:

- What is the purpose or scope of your evaluation, including the project's research questions?
- Who will ultimately benefit from the work and why?
- Who needs to be involved and how will you work with them, including designated roles and responsibilities?
- What resources do you need to get started, including a review of literature and other sources of information?
- Have all the relevant contextual and situational factors been identified and their influences considered, including ethics?
- What theories, ideas, concepts or practices underpin and inform your work (theory of intervention)?
- What will you need to do to achieve the outcomes and change you want (activities/interventions)?
- What change do you want to bring about and how will it happen (theory of change, often expressed as 'If ... then ...')?
- What are your outcome indicators, numerically measurable or otherwise?
- Does the project fit together logically as intended?

Development and design:

- What type of design is best suited to the project requirements and impact evaluation (e.g. 'single-shot', cross-sectional, longitudinal, narrative, empirical, causal)?
- Is the level of detail specified sufficient to create an understanding of elements and their inter-relationships (explanatory links and/or causal pathways)?
- How do you expect your activities/interventions to change or to make things better?
- How do you intend to collect, analyse, interpret and present your data?
- What sort of sampling strategy is involved?
- Do you have access to a control group for comparative purposes? If not, how do you propose to ensure that the change anticipated will arise from your activities/interventions alone and not from something else (attribution)?

Evidence:

- How do you intend to test and articulate your underlying assumptions?
- How do you intend to capture and share change/amendments as the project progresses?

- How will you guarantee that the activities/interventions will be faithfully implemented as intended?
- Will the outputs/outcomes observed appear at the expected level of performance?
- How do you intend to capture any feedback as the project unfolds?
- How will you scan for/recognise any unintended benefits, experiences, results or outcomes arising?
- Could there be any other plausible explanations that might account for the outcomes?

Impact:

- What are the anticipated short, medium and longer-term benefits and impacts of your work?
- How will you be sure that any change/outcome and its impact progresses beyond merely establishing awareness or gaining an initial response into an observable feature to be adopted more widely?
- How will the adoption or rolling out of the project and its outcomes be managed?
- How do you intend to disseminate/communicate your findings to different audiences and when?

6.2 Without *LIEF*, there is always the risk that key mechanisms or outcomes in any evaluation might be overlooked thereby limiting its value. Adaptable and useful as it is, potentially unblocking potential issues at macro-, meso- and micro-levels and reducing sometimes multifaceted projects to simpler and more manageable ones, *LIEF* is by no means infallible and may need to be revisited and modified as a project unfolds.

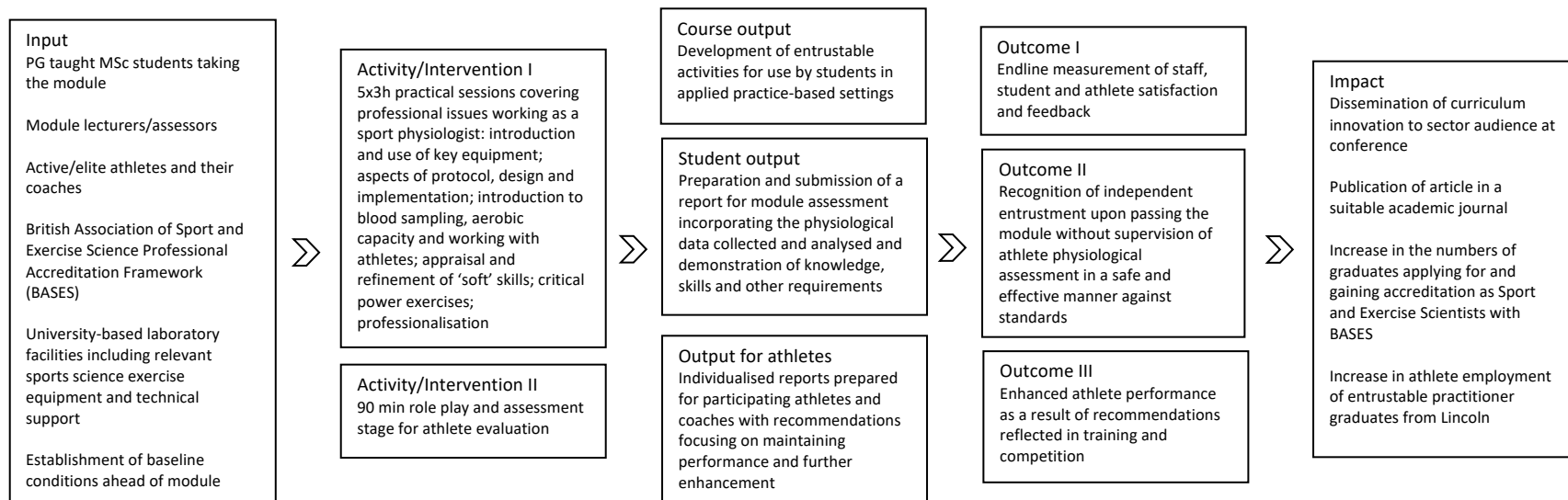
6.3 As indicated earlier, theory and logic-based models of impact evaluation, including *LIEF*, are not the only models available. For particularly complex and multi-layered projects which include numerous cyclical systems or feedback loops, realist evaluation, soft systems, interactive domain and utilisation-focused frameworks may offer suitable alternatives.

6.4 In the following section, two worked examples of *LIEF* are provided for reference.

7. Worked examples

7.1 The first of two worked examples of LIEF considers curriculum amendments to accommodate professional accreditation requirements in Sports Science (Figure 3).

Stated purpose, intentions or scope of project including research questions: Evaluation of quality and completion of entrustable activities that enables sports scientists to demonstrate competences in the safe and effective enhancement of athlete performance



Theory of Intervention: Social constructivism (after Woollard and Pritchard 2013; Reese 2015)

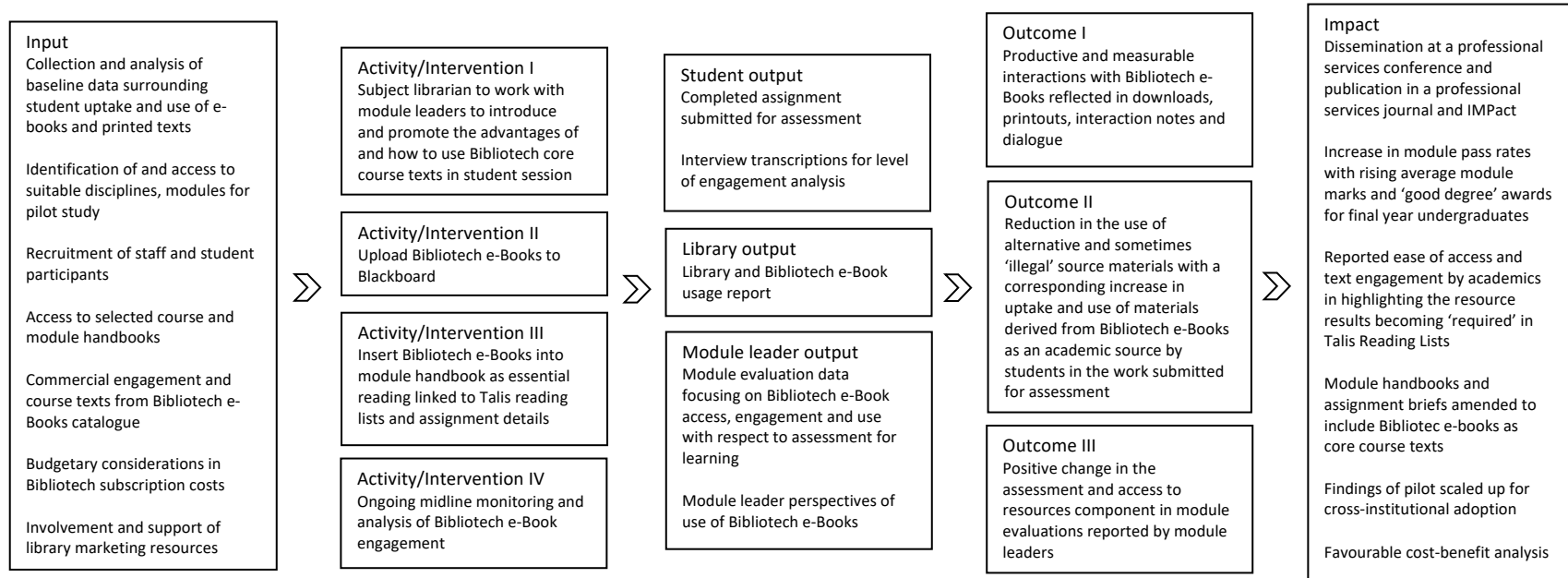
Theory of Change: If the programme of activities involving social interaction and training on this module is completed successfully as assessed against benchmarked industry standards then students will qualify as entrustable professionals capable of operating independently and with a case-study for the later accreditation as Sport and Exercise Scientists awarded by BASES

Contextual factors and assumptions including ethics: Curriculum must satisfy external standards determined by BASES and meet ethical requirements for the involvement of human participants and collection of human tissue

Figure 3 Entrustable professional activities (simplified for exemplification: courtesy Dr Mark Smith)

7.2 The second worked example of *LIEF* considers library innovation to support teaching and learning at module level (Figure 4).

Stated purpose, intentions or scope of project including research questions: Do Bibliotech e-Books increase the student engagement with text over other electronic and conventional platforms leading to enhanced student attainment reflected in module outcomes?



Theory of Intervention: Academic and Information Literacies (Lea and Street 2006; Lea 2017; Streatfield and Markless 2008)

Theory of Change: If students have greater access to core text e-Books from Bibliotech, together with instruction and flexibility in terms of how they can be used, then greater levels of text engagement as well as course satisfaction and module attainment will result

Contextual factors and assumptions including ethics: Investment of resource with Bibliotech e-Books as a new and innovative form of electronic provision offers a potentially beneficial solution for staff to help students engage with core course reading materials and key texts (ethical issues over data transfer to clarify and resolve)

Figure 4 Bibliotech e-books (simplified for exemplification: courtesy Ian Snowley and Faye Cleminson)

8. Approaches, methodologies, methods and sampling

8.1 The scope of Higher Education research is such that only a snapshot of approaches, methodologies, methods and sampling is provided here, and for illustrative purposes only.

8.2 All projects involving *LIEF* will inevitably engage with the wider research literature during which further terminology will be encountered requiring additional clarification. Often presented and used interchangeably within and between sources, the three most commonly confused and confusing terms in Higher Education research are defined as follows:

- Approach - best be thought of in terms of overall or over-arching project design or focus (e.g. case-study, phenomenography, ethnography, action research, (auto)biographical research, digital/technological/web-based research, meta-analysis, surveys, experiments, Randomised Controlled Trials or RCTs)
- Methodology - within any given approach or design, methodology, or evaluation methodology, is best thought of as the overall plan for sampling, data collection and analysis which may, on occasion, also reveal a paradigmatic influence or association (e.g. qualitative, quantitative, mixed)
- Method - within any given methodology, method refers to the instruments, tools, techniques and procedures actually used for data collection itself (e.g. interviews, focus groups, observation, role-play, questionnaires, tests, documents, audio-visual)

8.3 Opinions and views surrounding approach, methodology and method will vary between individuals and disciplines. What matters most in any project, and the outputs, outcomes, impact and dissemination which follow, is that all terminology and process associated with approach, methodology and method is explicitly defined. This also extends to a careful consideration of the nature and sources of evidence, all of which lead to the robustness of findings and determination of impact itself.

8.4 Broadly speaking, and within its own limitations, the most common approach adopted in Higher Education with an immediate appeal at School or College level is the case-study (Table 5), though this is entirely dependent on scale (when a survey might be more appropriate), what is being evaluated and how the evaluation is best undertaken (e.g. a narrative impact evaluation, providing a critical and self-critical explanation of outcomes, an empirical, evidence-based and data-driven impact evaluation focusing on the planned activities/interventions and benefits arising, or a more causal impact evaluation focusing on which outcomes can actually be directly attributed to the planned activities/interventions themselves with reference to a comparison or control group). Case-study designs are,

nevertheless, highly versatile, adaptable and can take many different forms (e.g. a phenomenographic case-study, a mixed-methods case-study, and so on).

Advantages	Disadvantages
<ul style="list-style-type: none"> • Lends itself to describing, analysing and interpreting the behaviours of real people in real settings and the relationships and interactions that exist between them. • May allow for a thorough exploration of interactions between activities/ interventions and contextual factors. • Can help explain changes or facilitating factors that might not otherwise emerge from the data. • Provide detailed narrative and chronological accounts or stories of how people in their settings co-exist, exploring the subtleties and intricacies of complex situations surrounding existing conditions and cultures without interfering with them. 	<ul style="list-style-type: none"> • Can be time consuming. • Access to 'the case' may require careful negotiation. • The presence of and relationship between project lead/evaluator and participants may influence the nature, quality and type of data obtained. • Any disagreements arising among individuals may be difficult to represent/report. • Generalisation from one situation to another may be limited (but for the 'user' to determine). • The boundaries which define 'the case' are not always rigorously delineated.

Table 5 The case-study approach

8.5 As with all project designs, case-studies included, sampling strategy and sample size can be crucial for success. Sampling for impact evaluation may be probability-based, random in nature and preferred for quantitative methodologies with larger sample sizes (including systematic random and stratified random), or non-probability-based offering suitable alternatives for qualitative methodologies and smaller sample sizes (e.g. cluster, convenience or opportunity, purposive, volunteer, snowball). These are not mutually exclusive. Often, the choice of sampling strategy and sample size may not be within your control. In all instances, attempt to minimise sampling error, sample bias and response bias while ensuring representativeness:

- Sampling error - arises from using a sample not the entire population involved, reduced by ensuring the largest sample size available

- Sample bias – arises from those meant to participate but failing to do so or not providing complete information, reduced by repeated attempts to reach non-respondents or ensuring missing data can be retrieved
- Response bias – responses do not reflect opinions or behaviours accurately, may be deliberate or because of misunderstandings, reduced by careful piloting or pre-testing of instrumentation

8.6 In terms of methods, some common characteristics of the interview and questionnaire are also provided for illustrative purposes. The interview (Table 6) has been used throughout Higher Education research for some time and defined at its most basic as a process of communication, a means of collecting talk and a conversation with a purpose. It remains the basic tool for qualitative research.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Help collect rich and detailed information from a relatively small number of participants. • Explore the nature of expressed views, opinions, perceptions, attitudes, preferences and behaviours by allowing specific lines of enquiry to be pursued in depth as they arise. • Achieve a relatively high level of personal interaction while maintaining an acceptable level of standardisation. • Flexible if semi-structured or unstructured and when conducted face-to-face. • Amenable to content, discourse, conversation and narrative analysis • Can be analysed manually or using NVivo. 	<ul style="list-style-type: none"> • Require interview expertise. • Can be time consuming and expensive. • Can be difficult to record, analyse and interpret. • Suffer from interviewer (e.g. age, gender, ethnicity, socio-economic status, dress code) and interviewee effects (e.g. motivation, interest, attentiveness, accuracy and truthfulness) and transcription bias (e.g. recall errors, selection of material). • Volume of information obtained can be considerable increasing costs. • Flexibility may result in interview variation and inconsistency.

Table 6 The interview as a research tool

8.7 Similarly, the questionnaire remains the basic tool for quantitative research (Table 7). Both interviews and questionnaires are the most commonly used techniques in mixed-methods research.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Good for gathering straight forward numerical and other types of data from any number of participants, large or small. • Explore the nature of expressed views, opinions, perceptions, attitudes, preferences and behaviours in a prescribed way. • Achieve a relatively high level of standardisation if structured or semi-structured without a requirement for personal interaction. • Relatively inexpensive to use unless they need to be developed and validated initially using exploratory and confirmatory factor analysis. • Amenable to descriptive or inferential statistical analysis. • Can be analysed manually or using SPSS. 	<ul style="list-style-type: none"> • Can be rendered relatively useless if poorly designed or constructed in the first instance. • Take time to complete particularly if overly long or respondent is busy. • Box ticking alone can never capture the complexity of people’s lives, leaving some respondents frustrated at not being able to express themselves fully or in a different manner. • Response rates can be very low, particularly when administered by electronic means (e.g. email or online) • Self-reporting may lead to selective recall and respondent bias. • Data may provide an overall or general picture but lack depth, detail or adequate information in context.

Table 7 The questionnaire as a research tool

9. Ethical considerations

9.1 As with any project, particularly those involving human participants, all ethical requirements must be addressed at an early stage in the process in order to protect the project team, the evaluators, the participants, the institution and its stakeholders, including professional associations and members of the wider professional community, from harm. Further details, incorporating the basic ethical principles of respect, competence, responsibility and integrity, can be obtained from the university's Ethics and Governance site via the portal at:

- <https://ps.lincoln.ac.uk/services/RE/Research%20and%20Industrial%20Partnerships/Ethics%20and%20Governance/SitePages/Home.aspx>

9.2 Additional and valuable sources of ethical information are also available from the British Educational Research Association's *Ethical Guidelines for Educational Research* (2018), the British Psychological Association's *Code of Ethics and Conduct* (2018) and the British Sociological Society's *Statement of Ethical Practice* (2000). Many other professional associations also offer their own discipline-specific advice which should also be consulted.

10. Writing impact evaluation reports

Writing an impact evaluation report is the first step towards dissemination. Reports may be written adopting any number of different formats, the general form of which is best summarised as follows:

- Title page including institutional affiliation, authorship and date
- Abstract and/or executive summary and acknowledgements
- Contents list
- Introduction and background
 - Project team and stakeholder interest and involvement; the purpose, problem or need to be addressed and why; project aims and objectives; relevant background information; critical review of literature which identifies a point of departure (the literature review may appear as a separate section by itself).*
- Project development and design
 - Project development and design presented from a diagrammatic summary with timelines and an accompanying narrative of elements with focus provided using the Lincoln Impact Evaluation Framework (LIEF); project costs and sources of funding (if appropriate); the activities/interventions undertaken in detail; outline of theories of intervention/change; details of respondents and sampling strategy; the involvement of a comparison or control group (if appropriate); overall approach, methodology and methods with research instruments and the techniques employed in data collection and analysis in detail.*
- Evidence/presentation of findings
 - Accurate and evidence-based description and interpretation of results, outputs and outcomes; clear evidence of critical and self-critical reflection throughout.*
- Conclusions and recommendations
 - Objective; accurate and transparent; findings related to the nature and quality of the data and types evidence available (e.g. where was it weak, where was it developing and where was it strong); assertions sensitive to the particularity of context; negative as well as indirect and unintended consequences reported; enough information presented to allow others to make an independent judgement of the work and to replicate should the need arise; clarity and precision about all limitations and shortcomings; implications; benefits and impact in terms of reach, significance and the project's success or otherwise; the project's relevance to all stakeholders and the wider community.*
- References
 - Complete list arranged alphabetically or numerically using Harvard, APA or any other system as appropriate.*

Appendix: CPD impact activities*Activity 1: Locating your work in the broader institutional/Higher Education context*

With reference to the overarching themes presented earlier and as follows, where would you locate your own work within the institution and as a component of Higher Education research and practice:

Theme	Guiding concepts and ideas
Teaching and learning	
Course design	
The student experience	
Student engagement	
Quality	
Institutional management	
Academic work	
Other	

Activity 2: Visualising the 'Big Picture'

Before attempting to produce anything like the worked examples provided earlier, begin the process of planning for impact by 'brainstorming' all of your thoughts and ideas about the project onto paper (syn. road map, concept map, story board). Use the framework to help structure and guide the 'visualisation' of the project as it unfolds. Remember to start with what you want to change and the anticipated benefits and impact of your work and track backwards in the preferred direction of thinking and working.

Make sure you join together all of the different thoughts and ideas which emerge using annotated arrows to reflect what you think might be the most likely relationships and inter-connections between them. These might also turn out to be most likely explanatory or causal links and pathways which you will be able to confirm later.

Once complete, finish the 'brainstorm' by adding additional layers of complexity to make as much as possible explicit and transparent. This might include, for example, the theories and evidence informing your work, the assumptions and risks involved, a SWOT analysis of the most critical pathways involved, a SMART approach to target setting and where and how the work will be monitored and reviewed.

Complete the exercise by considering roles and responsibilities, resources and timelines.

Activity 3: Developing outcome indicators and measures

With reference to the ‘brainstorm’ above, can you identify and provide details of actual outcome indicators and metrics? The table below is provided to help. The list of possible outcomes is for guidance only.

Affective (emotional)	Behavioural (personal)	Cognitive (academic)	Demographic (background)	Engagement (life cycle)
Happiness	Attitude	Curriculum	Age	Motivation
Enjoyment	Aspiration	Teaching	Gender	Attendance
Hope	Autonomy	Learning gain	Sexual orientation	Access
Relief	Commitment	Assessment	Disability	Participation
Boredom	Employability	Knowledge	Socio-economic	Health
Anxiety	Graduateness	acquisition	status	Wellbeing
Anger	Identity	Cognitive skills	POLAR	Recruitment
Hopelessness	Communication	Problem-solving	Care leaver	Induction
Frustration	skills	Peer assessment	Estranged	Retention
Fear	Collaborative skills		students	Progression
Shame	Practical skills		Gypsy, Roma,	Completion
Confidence	Friendships		Traveller	Placements
Belonging	Self-efficacy		Refugees	Work experience
			Military families	Culture

Notes:

- Begin by restating the purpose, intentions and scope of your work ...
- Outline in detail what you hope to see change as a result of your activities/interventions ...
- From within your purpose, intentions and scope, together with the change anticipated, identify and express one single goal or target more precisely as an outcome indicator ...
- Is your outcome indicator measurable in qualitative or quantitative terms? Are there other indicators or published standards available against which it can be directly compared? This may require some thought ...
- Repeat the activity for other goals or targets until complete ...

It can also be worth considering output indicators also. This can sometimes help clarify the differences between outputs and outcomes which are not always entirely obvious.

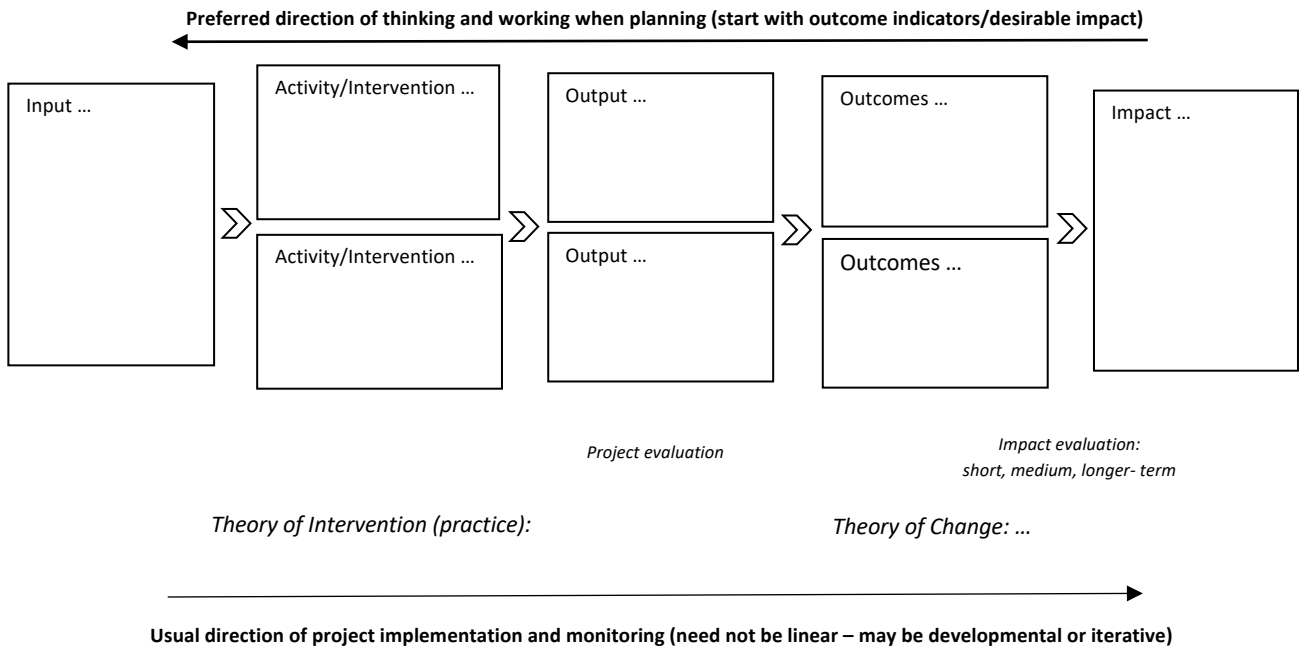
Activity 4: Simplifying the overall design

Having completed Activities 1-3, and with reference to the *Lincoln Impact Evaluation Framework (LIEF)* itself, begin to tidy up your ‘brainstorm’ and transfer it to the following project template. The template is for illustrative purposes only and will need to be considerably modified to accommodate your own work which will inevitably look more ‘layered’ or ‘nested’.

At this stage, it may become apparent that your initial thoughts and ideas are just too ambitious or the project too large. If this is the case, don’t be afraid to split these up into more manageable ‘chunks’ and prepare separate schematics for each one if necessary.

Complete the design using *LIEF* by fully incorporating your approach, methodology and methods and other operational details of the project.

Stated purpose, intentions or scope of project including research questions: ...



Contextual factors and assumptions including ethics: ...