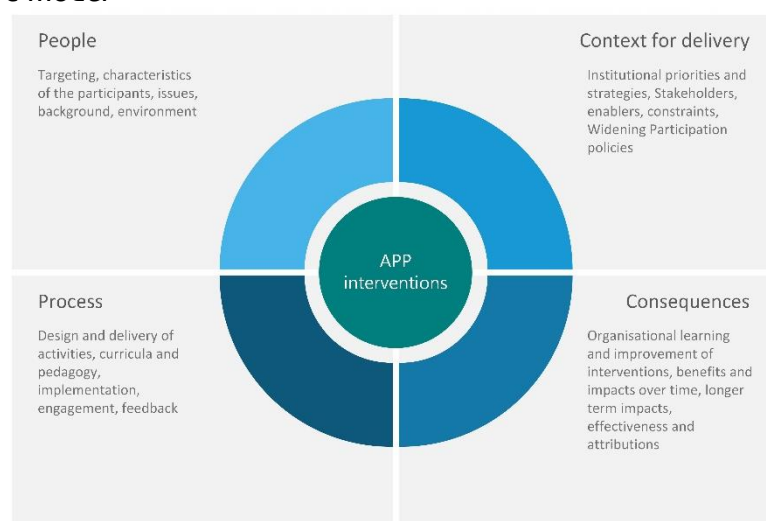# PEOPLE-PROCESS-CONTEXT-CONSEQUENCES MODEL

Introduction

Quality and impact in higher education access, participation and success requires assessment of how far strategies are meeting the needs and the effectiveness of the operational processes involved, as well as the outcomes. Policy makers at all levels are interested in widening participation progress and effectiveness. Future funding may depend on clear, measurable data showing the benefits and outcomes for students, but there is also a need to ensure that the sector learns from interventions and this requires evaluation information that is capable of informing future programme design and implementation strategies. Understanding impact is important for decision-making on investments, but meaningful and utilisation-focused approaches to evaluation are also needed in order to understand why and how access and participation work generates impact, and to respond to the needs of the stakeholders who use and learn from evaluation to improve what is delivered.

Aims of the p-p-c-c model

The NERUPI approach to evaluation is aiming to be practitioner-informed, practical and utilisation-focused. The p-p-c-c model (standing for people-process-context-consequences) is based on a critical realist approach and focused on collecting and assessing evaluation data and evidence on these four key dimensions of widening participation work, and the interactions between them. The model aims to provide a comprehensive picture to inform decision making related to interventions and support continual improvement, as shown in Figure 1. The approach draws on realist and theory-oriented evaluation thinking which sees context and participants as inseparable elements embedded in programmes and fundamental to the results. As the aim of access, participation and success initiatives is to address social inequalities exploring and agreeing which objectives and factors are within scope of a programme and what is outside in the surrounding context can be an illuminating exercise.
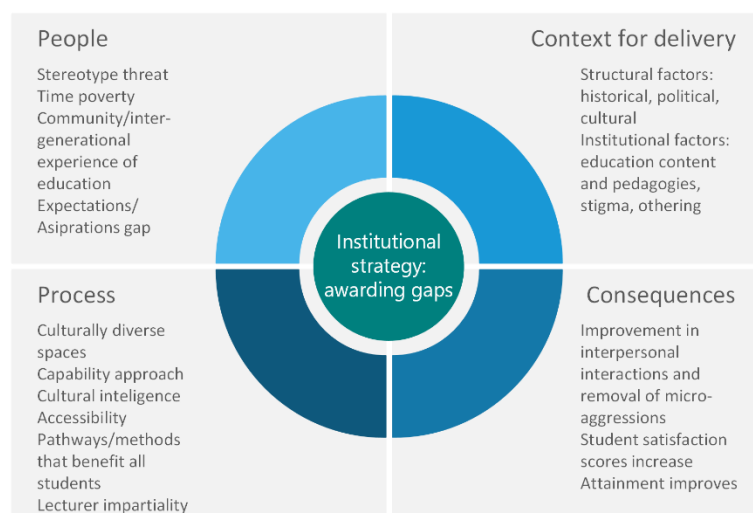
Figure 1: The p-p-c-c model

The model aims to be formative as well as summative, unlike impact evaluation approaches which focus on the retrospective assessment of whether objectives have been met, and seek to attribute the results to the action, often through an experimental approach. The model can help to

systematically guide both evaluators and stakeholders (as part of a praxis team) in posing relevant questions and conducting assessments before, during and at the end of a programme. The model is designed to support 'learning by doing' in the context of emergent and dynamic projects and programmes and is seeking improvement as well as attribution.

A key aim of the p-p-c-c model is to ensure that the evaluation includes sufficient information to fully describe what happened. This is important for a number of reasons:

1. Including all dimensions enables a more dynamic approach to analysing evaluation evidence and making judgements about it to improve practice, for example, to find out why results happened in the way they did and to set about matching and adapting interventions to different evolving circumstances.

2. A complete picture of different programme aspects is important when it comes to thinking about requirements and conditions for how a successful programme could be replicated in the future or in other higher education providers' contexts. For example one can identify and then reproduce contextual and process features if it has been shown that will optimise the implementation of the intervention as intended.

3. When it comes to evaluating outcomes, the p-p-c-c model could support analysis of differences in trajectories and outcomes for different groups of people and the effect of different contextual influence (e.g. for example through the use of multi-group models which capture the results for the same/different groups in different contexts, or within the same context across groups and time).

Figure 1: An Example of p-p-c-c dimensions identified for exploration as part of an institutional strategy to address awarding gaps

People

Stereotype threat
Time poverty
Community/inter-generational experience of education
Expectations/Asiprations gap

Context for delivery

Structural factors: historical, political, cultural
Institutional factors: education content and pedagogies, stigma, othering

Institutional strategy: awarding gaps

Process

Culturally diverse spaces
Capability approach
Cultural inteligence
Accessibility
Pathways/methods that benefit all students
Lecturer impartiality

Consequences

Improvement in interpersonal interactions and removal of micro-aggressions
Student satisfaction scores increase
Attainment improves

Dimensions

The *people* dimension recognises the active role of groups and individuals in influencing their own capabilities and development, in relation to their previous experiences (ref habitus) and the diverse interactions they have with the educational environment. This dimension sees participants involved in access and participation activities as active agents in their own development, behaviour and

progression choices, while recognising that they have been shaped by their experience and influenced by others in the context in which they are living and studying. The people dimension encompasses factors in the 'bio-system' (ref Bronfenbrenner) (i.e. relevant characteristics specific to the individual, such as personal traits, skills, behaviour, motivation and personal/group preferences) and the 'micro-system' (i.e. the direct relationships with those in the immediate environment, such as teachers, students, family and support staff). Broader 'macros-system' aspects such as cultural norms, and societal influences that impact all individuals indirectly are also important to consider in understanding the societal factors that underpin positive engagement with education.

> *The implications of the people dimension for evaluation include understanding what's actually required, whether the programme is responding to the needs of the target group(s) and making sure the evaluation understands the factors which affect engagement and achievement of the programme goals (i.e. understanding why proposed access and participation activities are important and how they can make a difference to individuals and groups).*

The **process** dimension includes all the interactions that groups/individuals experience in relation to the widening participation interventions that are being put in place to support access, participation and success (i.e. what is being experienced (content and procedures), how is it being delivered (pedagogy), when and by whom. These process related interactions have a direct influence on the outcomes and impacts of the work (especially where they involve reciprocal and sustained interactions).

> *The implications of process for evaluation include assessing the relevance of the delivery methods chosen (curriculum, pedagogy, procedural factors) and the extent to which they are attuned to the needs and goals, and how effectively the methods are being implemented. (i.e. testing whether the activities are being carried out effectively in the way envisaged).*

The **context** dimension takes account of how situational and environmental factors influence widening participation projects and programmes. These include the interactions taking place in the 'mesosystem' (i.e. interactions between the key players, such as such as collaboration between teachers and parents, interactions between lecturers and students, peer group activities or community involvement), along with the 'exosystem' factors that indirectly influence the individual such as organisational factors (i.e. institutional structures, staffing practices, available resources, curriculum and assessment, cultural elements within institutions and various support systems) along with the external regulatory and financial aspects of the higher education sector which shape policies, inform funding and set standards across institutions. Macro contextual factors might also be included here if relevant - such as economic and labour market trends, government policies, political climates and funding patterns although these are likely to have been addressed at the Strategic Analysis stage.

> *The implications of the context dimension for evaluation is to understand the context in which the action is taking place, and how factors in the environment in which the programme is situated (organisational, social, political, economic, and so on) support or inhibit achievement of goals (i.e. understanding what contextual factors are supporting or inhibiting the widening participation activities and their success).*

The **consequences** dimension aims to capture the changes that take place as a result of the intervention. Those of most relevance are likely to be the short term benefits, medium term

outcomes and longer term impacts that have been identified for the target groups. Consequences encompass changes in perceptions, behaviour and outcomes (e.g. attainment and progression outcomes) over time but could also include changes that occur in the environment (e.g. partnerships and linkages, socio-economic structures). Consequences could last for differing durations and might have significant long-term, positive or negative, consequences for an individual's future experiences, self-efficacy, and motivation as well as their educational trajectories.

The implications of this dimension for evaluation are to assess the outcomes and impacts (intended and unintended), and the merits/importance of these. (i.e. to assess whether the project or programme is succeeding or not in relation to the improvements it set out to achieve).

Table 1: Framework dimensions and aims

Dimension	Aims	Example Questions
People	Assess what's required, whether the programme is responding to the needs of the participants and aims of the intervention ensuring that evaluation understands the factors which affect engagement and achievement of the programme goals.	Why is the programme important and how can it make a difference?
Process	Assess the appropriateness of the delivery methods chosen (curriculum, pedagogy, procedural factors) and the extent to which they are attuned to the needs and goals, and how effectively the methods are being implemented.	Is the project being carried out appropriately?
Context	Assess the context in which the action is taking place, and how achievement of the goals is affected by factors in the environment in which the programme is situated (organisational, social, political, economic, and so on)	What factors are impacting the programme?
Consequences	Assess the outcomes and impacts (intended and un-intended), and the merits/importance of these.	What changes can be identified?

Evaluation Methods

The p-p-c-c dimensions of a strategy or programme are highly relevant through-out an evaluation, as shown in Table 2. The selection of methods is perhaps the most difficult part. Different methods can be used to take account of these aspects as part of the evaluation design as appropriate to the stage and situation (as shown in Table 2). The main criteria should be:

- Comprehensiveness (i.e. enough data to ensure findings are reliable);
- Abductive reasoning (i.e. sufficient insight to be able to develop hypotheses) and
- Confirmation (i.e. being able to confirm the hypothesis through observations in the data). In practice this means using quantitative methods to give you breath of data across your population (e.g. to establish characteristics, variables and patterns) and qualitative data to give you in-depth intersubjective insights into the process by which the results are achieved.

The approach is probably more suited to intensive studies, with a discrete group and limited number of participants, to make it easier to systematically analyse the interplay between the contextual factors and individual agency of the participants. However, it also works with larger samples and is suited to comparative studies (i.e. making comparisons across different cohorts, delivery contexts, or time periods).

Table 2: People-process-context-consequences (p-p-c-c) aspects at different phases of evaluation

	Evaluation Groundwork phase	Evaluation Design phase	Evaluation Implementation phase	Evaluation Use phase	Examples of methods
People	Once the broad area for activity has been agreed identify participants' needs and circumstances consider the extent to which the programme and the activities engage and target participants.	Take account of people factors and understand what's important to the participants	Capture evidence that provides participants with a strong voice in evaluating experiences. Capture (or control for) the effect of personal factors and circumstances on engagement, participation and results.	Formatively and summatively assess whether the programme met the target and the needs	Data analysis, literature reviews, surveys, interviews, feedback, student voice
Process	Understand and assess project strategies (curriculum, pedagogy) and procedural strategies designed to meet goals and objectives[1]	Identify how effectiveness of delivery of activities should be monitored and assessed	Monitor project's process and potential procedural barriers and identify needs for project adjustments.	Formatively and summatively assess whether the programme was delivered appropriately and effectively in a way which maximised the results.	Monitoring, observation, interviews, questionnaire, surveys rating scales, record analysis, case studies, focus groups, self-reflection, reflective logs
Context	Assess the setting for the programme and what's needed to make it work (inputs, resources, linkages, relationships)	Specify what and how the inputs and contextual factors will be analysed and judged.	Capture organisation, stakeholder and community arrangements. Capture the effect of external context on engagement, participation and results.	Identify programme, stakeholder and community aspects which support or inhibit success. Identify implications for future interventions	Data analysis. stakeholder analysis, participant and stakeholder feedback, organisations and systems analysis
Consequences	Identify the intended learning goals, benefits, outcomes and impacts	Specify how intended outcomes will be analysed and judged.	Measure whether specified results are being met, and any unintended consequences	Interpret, and judge project outcomes, and interpret their merit, worth/significance and probity.	Post-programme quantitative assessments of outcomes and impact, Behavioural measures (tracking data and follow-up) and self-reported measures (surveys, interviews, logs/diaries, focus groups, creative methods, case studies), stakeholder feedback, formal assessment measures

[1] These will depend on the programme. For example a programme involving delivery of attainment raising workshops would need to consider the curriculum, plus pedagogic approaches that are engaging, inclusive and offer challenge, and with consideration of other desirables such as reflection activities, understanding of diversity, mutual respect amongst participants. The procedural issues would include procedures for working with schools, target participants, collecting data etc. Factors such as duration and intensity would also be relevant.

Analysing the evidence

Working with evidence presents epistemic challenges (i.e. relating to the nature of knowledge and it's validation). Two different evaluators could make a case for different conclusions using the same evidence depending on their standpoint. The values on which analysis is based need to be identified from the start, this could mean a formal statement of bias or a conflict of interest, as well as through reflexive thinking. Since theory is usually the starting point, stating the reason why this theory was preferred over another is important, but also to take a critical stance. In a practical sense because the approach is based on mixed methods designs this could mean that the analysis phase brings together people with different skills and perspectives (and competency in both quantitative and qualitative methods).

Table 3: People-process-context-consequences (p-p-c-c) aspects at the analysis phase

People	Formatively and summatively assess whether the programme met the target and the needs
	This might include exploring issues related to the enablers or constraints to individual action and agency – so factors such as people's past experiences; values, beliefs, interests and agendas; sense of self (personal identity) need to be considered when thinking about why people act as they do, as well as the social situation they are operating in.
Process	Formatively and summatively assess whether the programme was delivered appropriately and effectively in a way which maximised the results.
	Finding a definition or typology of how the intervention works might be important (e.g. about learning, teaching and knowledge) because this can create a framework against which to interrogate how the structures might constrain or empower individuals in the context of the evaluation.
Context	Identify programme, stakeholder and community aspects which support or inhibit success. Identify implications for future interventions
	Context evaluation might assess how the situation affects what happens to either reproduce or change the pre-existing structures and relationships (which in turn influences peoples actions, behaviours (and agency)).
Consequences	Interpret, and judge project outcomes, and interpret their merit, worth/significance and probity.
	The consequences happen over time and are defined by the purposes and uses for the evaluation. The important thing is to establish the connection between the action and the observed effects in order to shed light on the programme theory.

In relation to outcome evaluations, the data collection methods and tools would seek to collect evidence to confirm/or repute the programme theory, whilst also allowing evaluation participants to construct their own meaning. The evaluation is likely to produce a lot of data in different forms (quantitative and qualitative). The analysis phase would involve looking for explanations (the causal mechanisms) by focusing on what the participants achieve (their agency, actions, behaviours) in the context in which they are operating (e.g. given the social structures and institutions).

The different data and evidence gathered as part of mixed methods evaluation design is used to gain a holistic understanding rather than as separate elements. The goal in the analysis phase is making inferences (that will constitute the findings). This requires holistic understanding and knowledge of the wider context and theories about how the intervention was meant to work. In the analysis

phase the focus is on uncovering a theoretical expression of the meaning of the evidence and identify the mechanisms that were involved in generating the (hopefully positive) results.

Therefore, a critical realist approach to analysis would pay attention to three 'levels':

1) the observations collected to show what happened (i.e. empirical data)
2) the 'below the surface' explanations (drawn out through qualitative research) and
3) the 'real' explanations (i.e. what can be inferred about what is really going on).

The analysis phase is likely to involve an iterative process of theorising starting with the data and moving back and forth between developing/testing theory and understanding the observations. A practical approach to gathering and interpreting data in order to generate causal explanations could be phased as follows:

1. Setting out the data and evidence
   Set out what is known about the situation (empirical observations).
2. Developing the narrative
   Create a set of narratives about the participants (could involve bringing information together from different sources).
3. Contextualising
   Identify the embodied institutional and social structures and relationships.
4. Identifying patterns
   Draw out how structures are experienced by participants (and how participants influence structures) and synthesise the patterns (by looking at what is known about each participant and their relationship with the structures) (abduction).
5. Making Inferences
   Make inferences which explain the underlying causal mechanisms (retroduction).
6. Checking
   Check the plausibility of the conclusions and consider between alternative explanations.

Conceptualising the data as a case study can be a useful approach when considering access and participation interventions (and reinforces that the intervention was bounded in terms of context/place and time).

Interpreting and using results

Within a praxis based approach, group reflection and discourse has an evaluative aspect —it asks members of the praxis team to weigh their experience — to judge whether the observed consequences (and issues) were desirable, given the context, and to suggest ways of, proceeding. The process of reflection as a praxis team allows for a more vivid picture of the situation, including opportunities and constraints on action to achieving the ultimate goals. The emphasis within evaluation on tracking long-term changes, whilst identifying short term capacity development, and thinking about the interactions and synergies between processes/measures and the context follows directly from the assumption that learning from action is the ultimate goal. The reporting should draw out the most plausible causal explanation (mechanism) – which means the one that best fits the evidence. Since the approach is improvement focused the idea behind identifying the mechanisms is then to address the underlying social realities and what needs to happen next (given the new information about 'enablers' or 'barriers' to change).