Contribution Analysis case study: Evaluation of the Higher Education Tutorial Supervisor role

December 2023

Lisa Collyer
Alex Guy
Simon Rhodes

Funded by the Centre for Transforming Access and Student Outcomes in Higher Education (TASO)

Case Study

This Contribution Analysis was conducted as part of a TASO programme to pilot the use of a series of small *n* methodologies within widening participation (WP). The nature of the Contribution Analysis approach means that there is no single 'correct' way of applying this methodology. The example presented here should be considered as illustrative of the approach rather than as a definitive model.

Methodological Guidance

Impact Evaluation with Small Cohorts: Methodological Guidance (pp.43–48)

Methodology Steps Mayne, J. (2008). *Contribution Analysis: An approach to exploring cause and effect. Brief 16, Institutional Learning and Change (ILAC) Initiative* Available at https://nonprofitbuilder.org/storage/377/Contribution-analysis-An-approach-to-exploring-cause-and-effect-ILAC.pdf (Open Access)

Contribution Analysis case study: Evaluation of the role of a Higher Education Tutorial Supervisor
Programme overview
Programme Context City College Norwich is a provider of HE in FE. It is one of the largest FE colleges in England with a student population of over 11,000. The Higher Education Tutorial Supervisor programme (HETS) is designed to address academic and continuation outcome gaps between students with and without learning difficulties and disabilities (LDD). The core programme is delivered by a dedicated Higher Education Tutorial Supervisor (HETS). With relatively small HE in FE provision, the number of student participants in the programme is sufficiently small to be supported by a single HETS role. The HETS is responsible for delivering several key strands: *Student focused*

- Raising awareness amongst students of the LDD support available.
- Identifying undisclosed (at the point of entry) student support needs through a survey.
- Holding 1:1 tutorials with students with a self-declared LDD to identify any support needs/areas of concern.
- Signposting students to additional services (e.g. wellbeing support provided within the College and by external bodies).
- Supporting students to apply for additional financial support through the HE Hardship Fund.
- Supporting students to apply for academic support (e.g. via Extenuating Circumstances and Special Allowances / Reasonable Adjustment policies).

Staff focused

- Raising awareness amongst staff of the support available so they can refer and signpost students when required.

Organisational

- Organise Study Skills workshops where appropriate to support academic performance.
- Work with support teams and students to ensure the effectiveness of policies.

Reason for Selecting a Contribution Analysis Methodology

The introduction of the HETS role correlated with the closing of continuation and academic outcome gaps between students with and without LDDs. Contribution analysis was considered an effective way of understanding the specific contribution of the HETS role in the context of other potential causal interventions. It was also seen as a way of gathering data about student perspectives on and experiences of the HETS role.

Evaluation Context

The evaluation process was designed to answer three key research questions:

What contribution, if any, has the HE Tutorial Supervisor made to module and degree outcomes in students with self-declared LDD?
What contribution, if any, has the HE Tutorial Supervisor had on continuation in students with self-declared LDD?
What contribution, if any, has the HE Tutorial Supervisor had on wellbeing in students with self-declared LDD?

The project team considered that evaluation outcomes could be used to encourage decision-makers in college-based higher education, and potentially the wider HE sector, to consider this type of intervention to support students with LLDs.

Step 1: set out the attribution problem to be addressed

The first step in the process is to define the 'attribution problem' to consider what aspects or components of the programme might be attributed to (understood to contribute to or cause) its outcomes.

The college's historical data revealed a -10% continuation and -6% attainment gap between students with self-declared LDD and their peers. The introduction of the HETS role had seen these gaps close. The project team considered there were also likely to have been other factors (such as library services support, support from personal tutors, lecturers and external tuition or wellbeing services) that made a causal contribution to this outcome. A contribution analysis approach was adopted to explore the extent of the HETS role contribution to these outcomes.

Step 2: develop the Theory of Change and identify associated risks

The next stage in the process involves working through and developing a Theory of Change to map how the programme is assumed to deliver its outcomes.

The programme was underpinned by an initial logic model which outlined the current situation, aims and expected outcomes (CCN local evaluation report, p. 24). The project team did not consider this to be sufficiently detailed to support the contribution analysis process and developed a more detailed Theory of Change.

The process of developing a Theory of Change was iterative and informed by an ongoing literature review, which focused on the impact of academic and other forms of support for students with LDDs.

The outcome of this process was a 'results chain' that linked the different programme components to intended outcomes. Because there were assumed to be a range of external causal mechanisms acting alongside the HETS role, two results chains were developed, one which focused on the HETS role (pp.32-33) and the other to map these external causal factors (such as external wellbeing services) (pp.36-37).

Step 3: gather existing evidence on the Theory of Change

This stage in the process is designed to generate research outcomes to support and evidence the assumptions made in the Theory of Change.

Some of the evidence was gathered via the same literature review that informed the Theory of Change, but the team also conducted a range of research activities to evidence the causal mechanisms detailed in the Theory of Change. These included:

- 9 x semi-structured interviews with HE students with LDD.

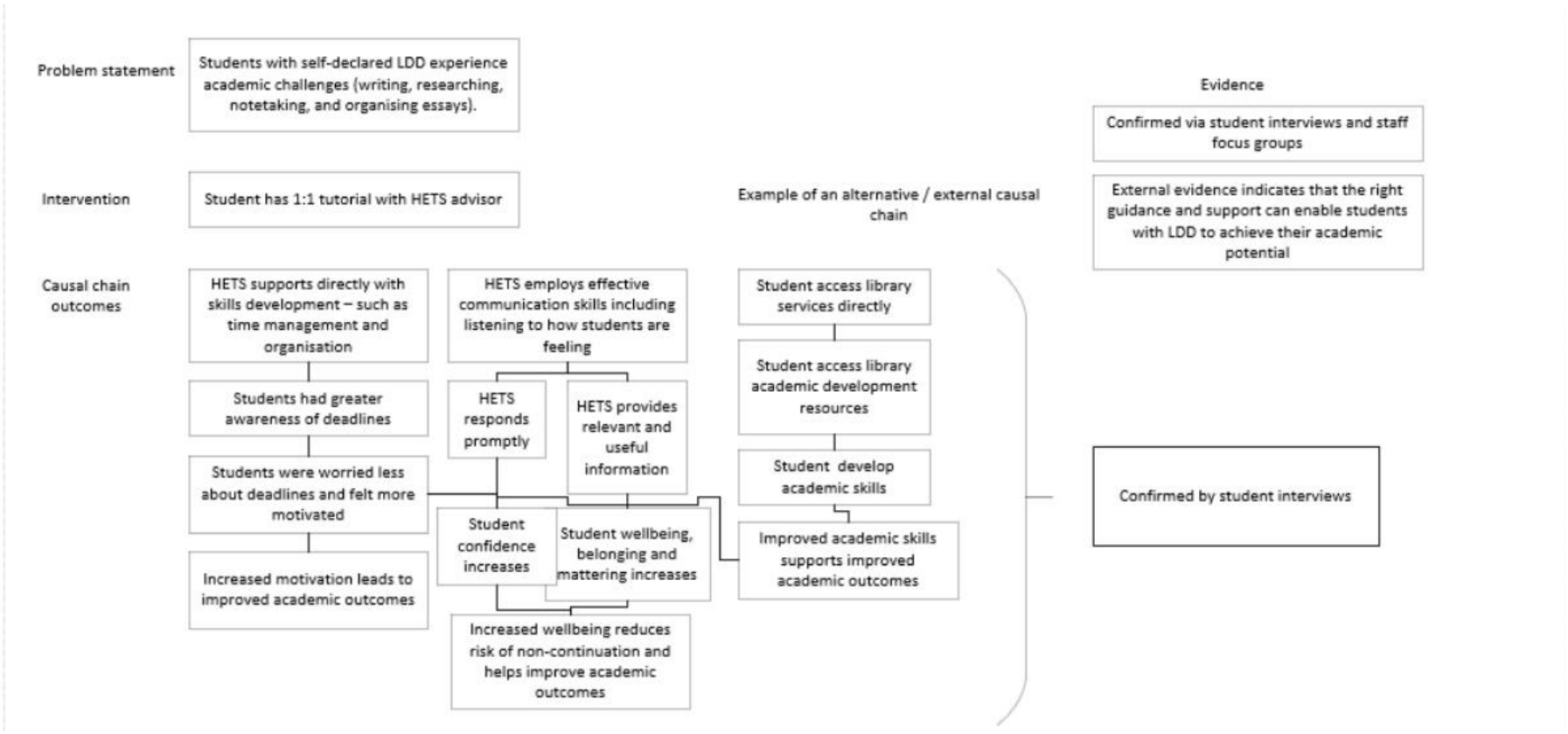
- 2 x staff focus groups. These involved college staff in a range of roles, including lecturers, personal tutors, tutorial supervisors, course leaders and a delivery manager.

This research triangulated relevant data and increased the team's understanding of and confidence in the causal pathways constructed in their Theory of Change. The student interviews, in particular, increased their understanding of the change mechanisms through which impacts were achieved. Both research strands also increased understanding of the other external contribution factors.

Step 4: assemble and assess the contribution story, and challenges to it

The Theory of Change, informed by the research outcomes in step 3 were mapped onto a 'contribution story' table, which describes each link in the causal chain, including the evidence for and against the impact of that link to the programme's outcomes.

The full report describes five causal chains, many of which are initiated by a student's participant in a 1-1 HETS tutorial. One of these causal chains is detailed below:



This causal chain maps the contribution claim that a 1-1 tutorial with the HETS supports students with:

- developing academic and study skills.
- improving confidence, which supports their continuation on the course.
- increased wellbeing, and
- improving their academic module outcomes.

Qualitative data gathered through interviews with student participants provided evidence that engaging with the HETS had helped them develop academic skills and improve their motivation. Student interviews provided evidence that other factors (including support from other tutors and accessing the library services) also contributed to programme outcomes. The team concluded that the 1-1 HETS tutorial makes a contribution to closing the attainment gap (between students with a self-declared LDD and their peers) by helping students with LDD to develop their academic and study skills.

Step 5: seek out additional evidence

Contribution analysis includes an iterative stage of evidence gathering to help strengthen confidence in the constructed causal chains and conclusions reached.

To strengthen the reliability of findings, and to develop further knowledge about the activities the team analysed additional datasets including:

- qualitative data from the college's Virtual Learning Environment (Blackboard).
- records of staff supportive dialogue with students on their online individual learning plans.
- quantitative data on attendance and module attainment of students with LDD.

This evidence helped to strengthen understandings of the alternative / external causal chain by indicating where students with LDDs had engaged with additional support services outside of their interaction with the HETS.

Step 6: revise and strengthen the contribution story

This stage of contribution analysis often involves a review of the draft contribution story and associated causal chains. This can involve a range of stakeholder groups (sometimes including an external evaluation expert) as part of an open and critical discussion. This process can help challenge and strengthen key elements of the causal chains.

The time frame of the pilot prevented a full iterative testing of the causal chains. Instead, the evaluation team assessed the links in their contribution story against the four conditions that Befani and Mayne (2014) propose are necessary to infer causality in contribution analysis:

- Plausibility – the Theory of Change is sound, informed by existing research and literature and supported by key stakeholders.
- Fidelity – the programme was implemented as described in the Theory of Change.
- Verification of the Theory of Change – elements of the Theory of Change are verified by programme outcomes and causal assumptions held.
- Other influencing factors are considered and assessed and either make little contribution or are incorporated into the Theory of Change.

The programme passed all of the tests, with the exception of the claim that the programme has made a significant contribution to students' final degree outcomes. Although there was some evidence from the additional datasets and staff focus group, the timing of the project prevented this being confirmed with students. (A full table of condition outcomes is available in the CCN local evaluation report, p.38).

The team also borrowed a series of hypothesis tests from the closely associated process tracing methodology. These test the extent to which causal mechanisms can be associated with programme outcomes and impacts.

The hypothesised role of the HETS in contributing to increased wellbeing and improved academic student outcomes was assessed as having passed the 'hoop test'. In this case, the test confirms that although the hypothesis could not be definitively proved, the test strengthens casual assumptions. The next level of the test is a 'smoking gun test', which can significantly strengthen but does not definitely prove a causal relationship. This was also passed, leading to the conclusion that the programme made a clear and necessary contribution to intended outcomes, even if there was not sufficient evidence to identify it as the sole necessary factor. Indeed, the research and evaluation data collected indicate that other factors external to the programme also make a significant contribution to outcomes.

Evaluation outcomes

The contribution analysis process generated strong evidence in support of the programme's contribution to intended outcomes from interviews with key stakeholders and a review of academic literature. It also produced strong evidence that the personal and individualised support that students received from the HETS led to a decrease in their anxiety and an increase in their knowledge, self-efficacy, confidence, motivation and sense of belonging.

The evaluation process also helped to identify additional contributory factors within the HETS intervention. These included the establishment of a positive relationship between the student and HETS, and for the HETS to have strong communication skills and be accessible and responsive to individual student's needs and requirements.

Team reflections on using Contribution Analysis methodology

In their report, the project team reflected on their use of contribution analysis, concluding:

- Clear guidance and effective step-by-step instructions about conducting contribution analysis are available and accessible.
- The methodological process, the iterative process of testing and retesting the Theory of Change and multiple data collection phases are time-consuming.
- The process also requires specific staff skills, particularly when it comes to analysing the data. Specific research and evaluation skills are required to develop an effective Theory of Change and to undertake quantitative and qualitative data collection and analysis to evidence intervention contribution factors.

- A comprehensive literature review is required to develop a detailed and meaningful Theory of Change at the outset of the project.

The team suggested that the benefits of contribution analysis were that:

- by involving a range of key stakeholders, contribution analysis produces well-informed, evidence-based evaluation outcomes.
- CA encourages evaluators to consider other factors or processes that might have contributed to desired outcomes.

They also felt there were some limitations of contribution analysis:

- The qualitative mode of evidence gathering focused on the subjective experiences of stakeholders. This potentially limited opportunities to quantify the contributions that an intervention has made to desired outcomes.

Pilot Team Conclusions

The team concluded that contribution analysis provided a useful framework and process for evaluating the impact of a programme or intervention with small numbers of participants.

Through using CA, the evaluation team have developed insight into the contributions made by specific activities within the HETS programme and which have the most meaningful impact. They also have in much more developed understanding of the complex interplay of external factors that also contribute to these intended outcomes.

Reference List

Befani, B. and Mayne, J. (2014) 'Process tracing and contribution analysis: a combined approach to generative causal inference for impact evaluation', *IDS Bulletin*, 45(6), pp.17-36.

Ton, G., Vellema, S. and Ge, L. (2014) 'The triviality of measuring ultimate outcomes: acknowledging the span of direct influence', *IDS Bulletin*, 45(6), pp.37-48.