

Staff Guide to Using Evidence

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FOREWORD AND OVERVIEW

Foreword

The Guide to Using Evidence is one of a suite of upskilling resources developed as part of the Evidence for Enhancement Theme (2017–20).

The Evidence for Enhancement Theme (2017–20) is positioned to assist staff and students across Scotland's higher education institutions as they respond to the rapid growth in the availability of, and demand for, data and evidence. The Theme has helped individuals and institutions reflect on how they are engaging with this swell of data and evidence, on important gaps and inconsistencies to be addressed, and on where new data-driven approaches to enhancing learning, teaching and the student experience might be developed.

In the foreword of the [first student-specific edition](#) (August 2019) of the Guide, the words of Daniel (2015) and Williams (2018) continue to resonate across the higher education sector.

We are, all of us, living and working 'in an age of abundant data' (Daniel, 2015, p917). This abundance is profoundly reshaping policy and practice across higher education, from the growth of learning analytics to the proliferation of student voice initiatives to emergence of the 'sticky campus', and much else besides. Data, or more accurately, the ability to engage critically with and generate evidence from it, is the price of entry into the debates and decision-making mechanisms driving (or resisting) change within institutions and across the sector. What we have seen in recent years is a 'datafication of higher education' (Williams, 2018, p4).

The original Guide was designed to support and encourage students and students' association and union staff to actively engage with data and evidence. It is cited by the [Office for Students](#).

Staff engagement with data and evidence is the focus of this second edition of the Guide to Using Evidence. Academic, professional support services staff and senior managers are at the forefront of using evidence and data. From changing learning and teaching practice in response to student feedback to developing new institutional strategies, data and evidence underpin all aspects of the student experience.

The structure and format of the first edition have been retained in this Guide so that concepts and terminology will be familiar to those who have already made use of the first edition. The case studies link to, and draw upon, a number of other Theme resources.

This Guide serves as a resource to help fulfil a key Theme aspiration, to increase staff confidence and empower staff using evidence and data to effect change.

Clare Parks, QAA Scotland, March 2020

Why is this Guide necessary?

Higher education is currently gripped by an ‘ethos of measurement’ (Spence 2019) which is directing institutional activity and guiding policy and practice both locally and across the sector. This is primarily driven by market forces, competition and the metrification of student supply and demand (Creative Arts Cluster, 2018), which positions the evidencing of impact on student experiences as critical. Running parallel to this there has also been an increase in attention to the ways that data and evidence can be harnessed for the enhancement of learning, teaching and student support through institutional and collaborative initiatives, such as the current [Evidence for Enhancement Theme](#). As such, those working or studying within higher education institutions are now exposed to continuous waves of data and evidence and have access at the click of a mouse to a plethora of reports and dashboards showing and analysing this in myriad ways.

The phrase ‘evidence of impact’ is now well-known beyond the realms of scholarly research, and this is not necessarily a bad thing. Beyond consumerism, there are fundamental moral and ethical motivations for understanding what works well and what doesn’t, and importantly, how to make evidenced-informed decisions for positive change. However, the dominance of numerical measurement data (which is too often read in isolation from other kinds of evidence and interpreted in overly simplistic ways) within the sector has now spread beyond high level institutional comparisons and has infiltrated almost all areas of higher education. Evidence of impact must consider the variety of data sources that are available and can be used in relation to areas under investigation.

The development of a robust and credible approach to research and evaluation ensures that data and evidence are the foundation of transformational change. This could include: providing an evidence informed rationale for new and continuing institutional activities and interventions; building evaluation of clearly defined objectives into all activities/interventions at the point of design; adequately resourcing and planning all research and evaluation activity, including obtaining ethical approval; ensuring that pathways for the dissemination of findings are clear so that contextual learning of ‘what works’ is an outcome and can influence change. This Guide provides an introductory overview of the scale and scope of data and evidence used in higher education. It aims to build confidence with methodologies and approaches that stem from the social sciences and education and are specifically applied to this context.

Who is this Guide for?

This Guide is written for staff involved in processes such as:

- evidence building for **institutional impact**, leading to the refinement of a process for greater success
- analysing **strategically relevant data sets** (for example, differential student outcomes, retention and progression targets) and providing **evidence of the impact of activity**, whilst positioning ethical principles and practices
- improving the content and scope of **internal quality enhancement** processes (for example, Module Review/Departmental Review) leading to improved teaching and learning/student satisfaction
- improving the content and scope of **external quality assurance processes** (for example, institutional and subject TEF narratives) leading to **improved national recognition** of teaching excellence
- introducing **evidence-informed critical pedagogical approaches that recognise heterogeneity** of the student population and organisational culture
- evidence building for **personal impact** (for example, performance reviews, reward and recognition schemes and career progression).

Additionally, this Guide will be useful to staff who:

- have a leadership role in teaching and learning, for example, Programme Leader, Module Leader, Course Leader
- are designing and delivering institutional projects linked to practice or strategy
- are new to higher education and are embarking on a programme of induction.

There are also developmental outcomes for staff.

How should this Guide be used?

- use of the Guide can be evidence of continuing professional development
- learning from the Guide can help build data and evidence confidence
- application of the content can develop criticality and strategies for influence

This Guide is designed in a series of eight sections which can be used individually or as a whole dependent on previous knowledge and skills. Section 1 (Introduction) can be used as route map to help navigate this content.

Each section includes content, activities and case studies to help develop your learning and encourage you to think critically about the content and its application. The aims of each section, along with the techniques to extend and apply your learning are outlined at the beginning of each section. A summary of each section called Evidence Essentials is provided towards the end.

There is an accompanying appendix with a glossary that explains the key terms that are highlighted in bold throughout the Guide. You will also find references and further resources, quiz answers and a 'Case Studies Revisited' section, which provide additional support.

Section 8 summarises key aspects of the Guide and will make the most sense when accessed after all other sections have been considered. This Guide could be used in staff CPD/ training sessions, such as inductions to the institution or new roles which require data and evidence use. It could also be a resource used within a PGCERT Teaching and Learning.





References and Further Reading

Daniel, B (2015) Big Data and analytics in higher education: Opportunities and challenges, *British Journal of Educational Technology* 46 (5): pp 904-920

Office for Students (2020) Student engagement and consultation, www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/evaluation-and-effective-practice/student-engagement-and-consultation/engaging-students-in-access-and-participation-work

Williamson, B (2018) The Hidden architecture of higher education building a big data infrastructure for the 'smarter university', *International Journal of Educational Technology in Higher Education* 15 (12): pp 1-26

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SECTION 1: INTRODUCTION TO EVIDENCE

By the end of this section you will be able to:



Define and apply data and evidence to various contexts within higher education.



Extend your learning, access the Digital Glossary in the Appendix to continue to define and apply key terms.



Apply your learning, review the case studies throughout the rest of this Guide to help you consider 'real life' examples associated with the content of this section and others.

What is data and evidence in higher education?

The first four sections of this Guide will ask you to think critically about how you are using/intend to use data and evidence in higher education.

Section 1 provides an overview of the content of the Guide and an introduction to key terms which are explained using short videos. Use this section to plan your use of the Guide.

Section 2 provides an overview of how and why evidence might be used by staff in higher education. A short activity will ask you to think about the different ways evidence is used in your institution/role. A case study with reflective questions is included which can be discussed individually or in small groups.

Section 3 provides an overview of the types of data that could inform your decision making. This includes the strengths and limitations of quantitative and qualitative data and challenges you to think about which evidence is dominant and which evidence is overlooked in your context. A case study with reflective questions is included which can be discussed individually or in small groups.

Section 4 will ask you to think critically about the evidence you use and how it is collected. This section will guide you through the questions you should ask at the beginning of a project and those you should reflect on continuously. This includes ethical questions and considerations of methodological quality. A case study with reflective questions is included, which can be discussed individually or in small groups.

This Guide then outlines the variety of data sources in higher education that can be analysed to help you explore a topic area or identified problem.

Section 5 provides detail of existing data sources that you may want to access and where to find them. This is introduced as [secondary data analysis](#). There is a typology that can be used to collate your sources and another case study with reflective questions that can be discussed individually or in small groups.

Section 6 discusses how you can choose the best method and design your own data collection tools using a suitable methodology. This is introduced as [primary data collection](#) and starts by outlining a process for rationalising research questions. The survey and focus group method are discussed in detail and incentives for data collection are debated. A case study with reflective questions is included, which can be discussed individually or in small groups.

Section 7 is designed to support you with the communication of your evidence and contains checklists and reflective questions to ask yourself in 'evidencing the evidence'. This section includes practical techniques such as action planning and scenario modelling to ensure that evidence is used effectively. The Critical Checklist for Using Evidence Effectively should be completed after engaging with Sections 1–6. To consolidate learning in this section, a further case study with reflective questions is included, to be critiqued individually or in small groups.

Section 8 - the final section - focuses on impact and ongoing action and is designed to summarise and utilise all the content and learning from the previous seven sections. In contrast to other sections, this starts with a case study of success, in which things go well to help identify important points in the process. This includes leadership skills and building effective relationships. It is highly recommended that all previous sections are completed before engaging with this section.

What is data?

Data is information collected for a specific purpose, including [research](#) and [evaluation](#).

A[method](#) is required to generate data.

These methods produce [quantitative](#) (numbers) or [qualitative](#) data (words/visuals).

A[nalysis](#) is necessary to make sense of data or data only exists as numbers or words/visuals.

What is evidence?



Evidence brings together the analysis of your chosen data to answer a specific question. More than one source of data can be analysed to produce evidence. [Triangulating](#) data can provide a more robust evidence base and can strengthen any conclusions you are making. This would include identifying any data gaps or outliers in the evidence.



1.1 Evidence Essentials One

Collating evidence is not always a logical or linear process. Data sources may not neatly corroborate and may even contrast each other. To make sense of your data landscape, spend some time reflecting on the process and the outcome. Evidence can include notes of unintended outcomes of the research/evaluation and personal reflections of the researcher(s). Once a conclusion has been reached, it is also important to state any limitations in the evidence base.



References and Further Reading

Creative Arts Cluster (2018) (Collaborative authorship: Gunn, V, Mackay, J, Schrag, A, O'Neill, S, Bennett, S, Miller Judd, P, Kanhye, R, Campbell, A and Sexon, S) Scoping the Creative Arts Territory in the Scottish Context: Teaching Enhancements, Evidence Development, and the Interconnections with the Cultural Ecology of Scotland. Glasgow: QAA Scotland

Spence, C W (2019). 'Judgement' versus 'metrics' in higher education management. Higher Education, May 2019, 77(5): pp 761–775

Trowler, V, Trowler, P and Saunders, M (2018) Responding to Student Voice: Insights into international practice. Glasgow: QAA Scotland

SECTION 2: USING EVIDENCE IN HIGHER EDUCATION

By the end of this section you will be able to:



outline the ways evidence can be used within an institution.



Extend your learning, begin to explore these functions within your own institution.



Apply your learning, review the case study to help you consider a 'real life' example associated to the content of this section.

Why use evidence?

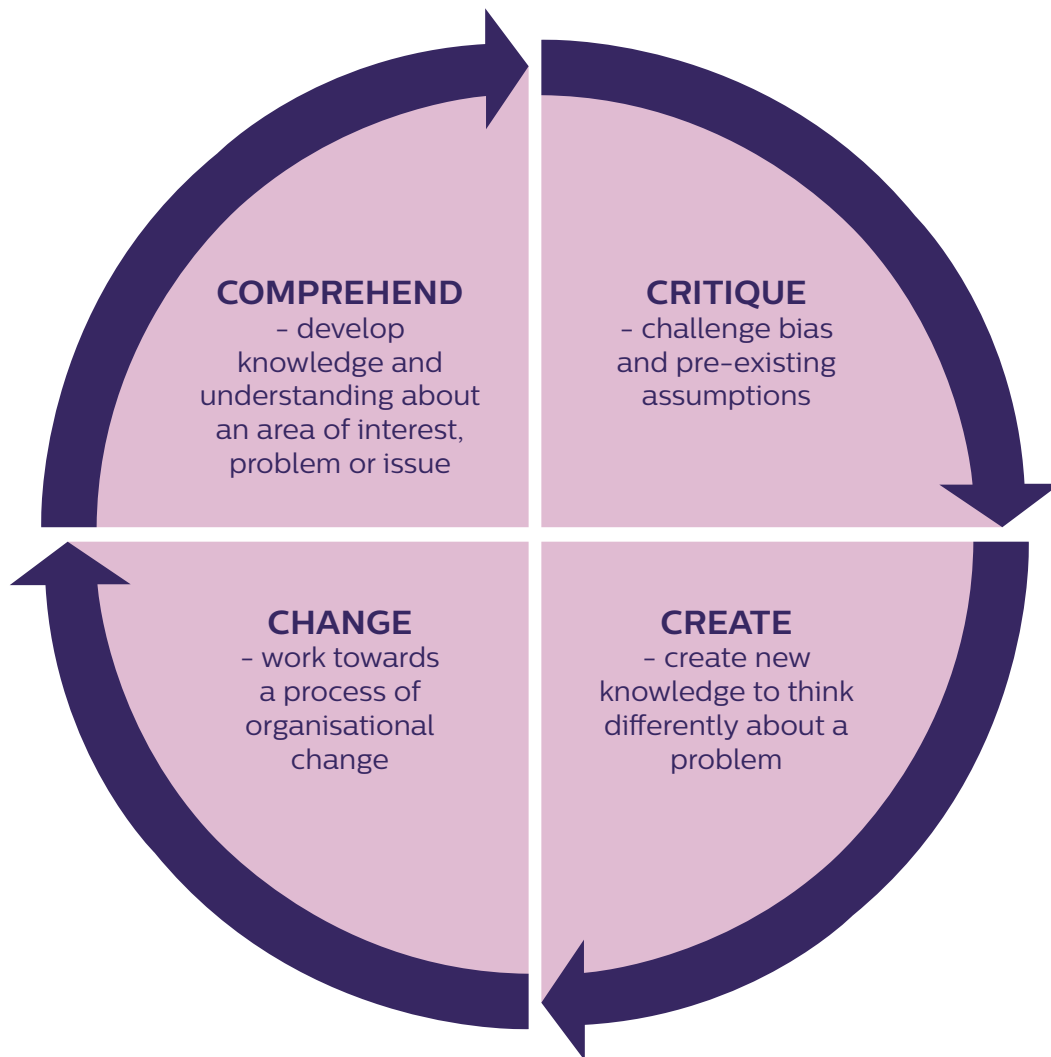
We use evidence every day to inform our thinking and to help us make decisions - consider the [data](#) gathered from customer photographs from restaurant visits, film critics' reviews and social media hashtags bringing together the views of so many on the latest television series.



We analyse these data sources and make judgements about those we value and those we might discount. We consider the views of others (your local school is judged to be outstanding, but your neighbour has sent their children elsewhere), and any limitations in the context/environment (your local school is judged to be outstanding, but it's too far to walk on foot). By doing this, we construct our [evidence base](#), form an opinion, and are able to make evidence-informed decisions.



Within a complex organisation, like a university, there will be many reasons why it is important to use evidence. Indeed, in many circumstances, you will be expected to engage with data and evidence. You could be engaging with data and evidence to:



CRITIQUE + CREATE = Research is defined as activity which seeks to contribute new insights to a body of knowledge. The research process would include the identification of a research problem and a research question and the selection of the most appropriate methodology to help answer it.

COMPREHEND + CHANGE = Evaluation is structured, planned, objective and goal focused. It gathers and analyses evidence to help make decisions about things. These decisions may be about interventions, activities and initiatives and provide recommendations for action.



2.1 Evidence Essentials Two

It is important not to assume that evidence gathered in one context using a specific methodology will apply directly to another. Try to move from evidenced-based decisions to evidence-informed decisions to account for your own environment and limits of proportionality (Parsons, 2017).

Proportionality realistically balances best practice against any limitations in time, resource and scalability.

When can evidence help you?

Here are a few examples of the ways evidence is used by staff within higher education (adapted from NESTA, ND, 13).

Can you add in examples from your own institution? The first row has been completed as an illustration.

Use of evidence by staff	Your example
To design more effective programmes/courses to deliver positive student outcomes	<p>Evidence: qualitative student feedback via the National Student Survey comments on negative experiences of transition to university</p> <p>Project: Student Transitions Map - bringing together sector resources relating to how students enter, move through, and leave university.</p> <p>https://www.enhancementthemes.ac.uk/en/completed-enhancement-themes/student-transitions/transitions-map</p>
To provide a rationale for an institutional research and evaluation/strategic enhancement project	
To develop, maintain or review institutional structures, processes, strategies and policies	
To show an assessment of need within a business case for additional functional resources	
To provide indicators of success and impact (internal and external/regulatory)	
To commission or decommission an intervention or initiative based on need and/or value for money	
To contribute an opinion within formal or ad hoc academic committees and boards	
To develop a team or working group with a specific skill set to address an identified problem	
To complete annual performance reviews, and action career progression and rewards for success	



2.2 Case Study: Using Evidence in Higher Education

To apply your learning, review the case study below and answer the questions to help you consider a 'real life' example associated to the content of this section.

Reese and Harper, Module Leaders at Algorithm University

Reese and Harper deliver two L5 modules on a programme at Algorithm. They are relatively new academic appointments and have noticed that the assessment process for both modules is very similar. Several students have remarked that they are bored at having to do the same type of assessment in close proximity.

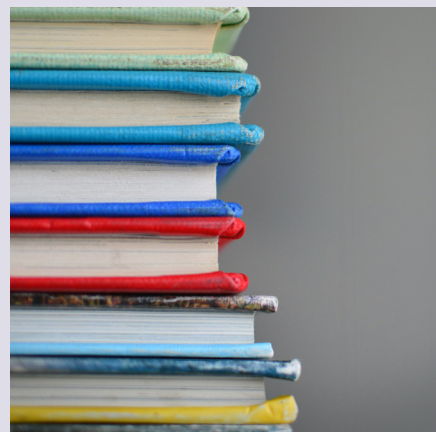
To address these concerns, the two staff members get together to design sufficiently differentiated assessments, drawn on their experiences elsewhere.

They discuss their ideas in class with students who appear to be very receptive to the proposed changes. They thank the students for their input and tell them that they will seek to make a change in time for the assessment phase. The students are delighted.

Full of enthusiasm, the two Module Leaders meet with the Programme Leader to discuss these ideas. The Leader is clearly irritated by their proposal, telling them both that they don't understand the traditions underpinning this programme and that, in any event, it is way too late to initiate changes for this academic year.

The Module Leaders leave the meeting feeling really deflated and these feelings are compounded when they go back to tell their students that they can't do anything about the assessment process in the foreseeable future. Understandably, the students are cross that the expected changes can't now occur.

Reese and Harper feel frustrated that they haven't been able to make the desired changes and, in addition, the relationship with both the Programme Leader and their respective students has been damaged. They wish they had never bothered!





Case Study Critique: Using Evidence in Higher Education

Consider the following questions and then see if you can reconstruct this case to have some improved outcomes for Reese and Harper. There is an alternative, refashioned version in Appendix A which provides one approach to providing an evidence-informed enhancement of this situation. Before accessing this alternative, see if you can do any better.

- What are your immediate thoughts about the case study situation? Why do Reese and Harper feel frustrated?
- How much knowledge did the two Module Leaders appear to have about the broader programme context in this interaction?
- Can you identify any pitfalls in their approach when discussing this matter with their students?
- What assumptions have you made about the meeting between Reese and Harper and the Programme Leader? What assumptions did Reese and Harper bring to the meeting?
- What evidence, if any, was used by the Module Leaders and Programme Leader to evaluate the proposed changes? Were any evidence sources used explicitly to aid understanding?
- How can Reese and Harper learn from the experience in order to examine ways of ensuring that further ideas are translated into effective action?

Notes



References and further Reading

JISC (2018) Code of Practice for Learning Analytics
www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics

NESTA (ND) Using Research Evidence: A Practice Guide, National Endowment for Science, Technology and the Arts
www.nesta.org.uk/toolkit/using-research-evidence-practice-guide

Office for Students (OfS) (2018) Mental health and wellbeing: a priority
www.officeforstudents.org.uk/news-blog-and-events/our-news-and-blog/mental-health-and-wellbeing-a-priority

Parsons, D (2017) Demystifying Evaluation, Bristol: Policy Press

QAA Scotland (2018/9) Optimising Existing Evidence: Webinar Series, QAA Scotland Enhancement Themes
www.enhancementthemes.ac.uk/en/current-enhancement-theme/optimising-existing-evidence/webinar-series

Sobe, N W (2018) Problematizing Comparison in a Post-Exploration Age: Big Data, Educational Knowledge, and the Art of Criss-Crossing
Comparative Education Review, 62 (3): pp325-343

Student Minds UK (2019) The University Mental Health Charter
www.studentminds.org.uk/charter.html

Universities UK (UUK) (2015) Student mental wellbeing in higher education: Good practice guide
www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2015/student-mental-wellbeing-in-he.pdf

Digital glossary for this section

[Data](#)

[Evidence Base](#)

[Proportionality](#)

SECTION 3: TYPES OF EVIDENCE IN HIGHER EDUCATION

By the end of this section you will be able to:



Describe the content of different types of evidence base.



Extend your learning, complete the data hierarchy pyramid by reflecting on types of data used in your own context, current/new role.



Apply your learning, review the case study to help you consider a 'real life' example associated to the content of this section.

What type of evidence base do you need?

The evidence base you require will depend on the question you want to answer, the way you want to answer it, how you want to present that answer, and the time and resources you have. There are benefits and challenges of choosing **quantitative** or **qualitative** data for your **evidence base**, which you should acknowledge before you start. You should also scope out your intended audience and assess whether any source of **data** is restricted within a given period.

Quantitative data

Quantitative data is expressed numerically and has been generated using a structured and rigid data collection method. This means that the focus of the questions and the units for analysis have been prescribed by the researcher (for example, closed questions in a survey) or an information management system (for example, official student records data). The aim of quantitative data is to quantify variability in a large **sample** and look for patterns, trends over time, **correlations** and sometimes **causality** and **generalisability** to a population through statistical analysis. If you use quantitative data, it might look like this:

Course	Overall satisfaction	1 year trend	4 year trend	2018 Rank & relative position	2017
Course A	99%	15%		22/73	4
Course B	97%	-4%		36/56	0
Course C	96%	18%		18/30	0
Course D	95%	11%		41/55	3
Course E	93%	8%		13/35	0
Course F	93%	2%		12/71	0
Course G	92%	6%		22/74	0
Course H	83%	5%		6/18	-1

If you have an evidence base that contains only quantitative data....

You should have evidence from a large number of subjects with numerical data that describes their characteristics, attitudes or behaviours, which you can analyse to address the aims of your inquiry. Using a range of techniques, you can clearly focus on relevant data. This data has been collected relatively quickly, even with limited resources. Before analysing the data you will likely have constructed an evidence-informed [hypothesis](#) and considered how this would be tested. The evidence used to construct the hypothesis did not include the data you are using to test it, minimising the risk of bias (such as [confirmation bias](#)) in your results.

You can analyse quantitative data in a variety of ways depending on the questions you are asking and the needs of your intended audience. You can present the data in visually appealing charts and graphs to highlight key messages. It is now common to present data in eye-catching and often very effective visualisations and infographics. You can also provide findings such as '83% of students on Course H were satisfied with their course in 2018, which was a 5% increase from the previous year'. Using this numerical data alone, you would be unable to provide any in-depth conclusions for why satisfaction had increased but remains below the institutional Key Performance Indicators (KPI) - that's why it's red - and declining against sector competitors. Without observing behaviour, you are also relying on students self-reporting satisfaction and, in this case, memory recall over a three-year period.

What other questions remain unanswered by this evidence? Make some initial notes here to reflect on at a later date.

Qualitative data

Qualitative data relies on the interpretation of words and visual information by the researcher. The data collection is more flexible and allows participants to add value to the data by directing the content. Qualitative data can be words (for example, from an interview, focus group or a written document) or visuals (for example, a photograph or artwork). Sample sizes are often small and a lack of generalisability is defensible. Rather, the intention is to create a rich interpretation of emotions and perceptions, often including reflections over a period of time. Your data might look like this:



Person A: I really hate the feedback grids we use in this module, with yellow highlighter all over them.

Person B: I agree, they're confusing and you can't really relate it to your own work. I never really know what the marker is looking for.

If you have an evidence base that contains only qualitative data...

It will normally take longer to collect and analyse this data, but you will gain a deeper understanding of the experiences of your participants and understand the challenges and opportunities they face. You have focused on enhancing the experience of a small group, rather than the entire student population, and you are clear to state the limitations of relating the findings to all students at the institution. If you have the time and resource you should analyse the data with another researcher who could provide additional interpretations to help build conclusions, noting that it may be difficult to find a consensus. You have also generated some findings which were unexpected. If you had conducted a survey, your closed questions would not have allowed this information to surface. You were able to present findings such as: 'The researcher noted that the majority of the focus group participants reacted much more negatively to the processes used to administer feedback, rather than the time taken to return it'.

What other questions remain unanswered by this evidence? Make some initial notes here to reflect on at a later date.

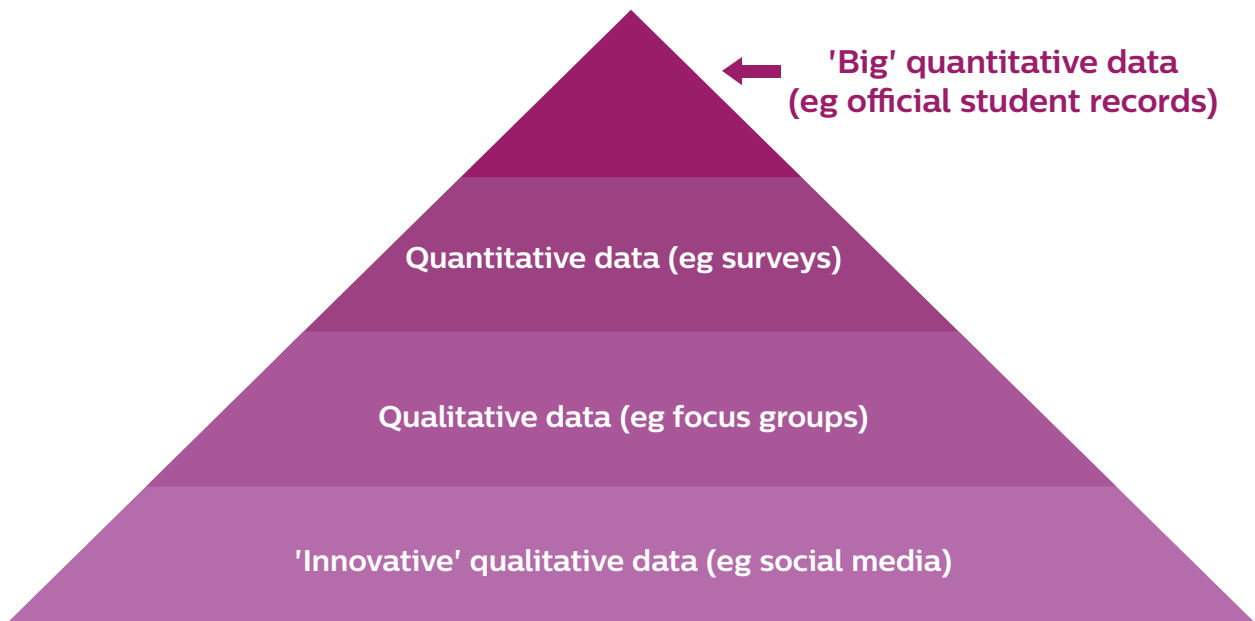
Analysing quantitative and qualitative survey data

The table below shows some of the key differences between qualitative and quantitative data by exploring how they compare when used in surveys.

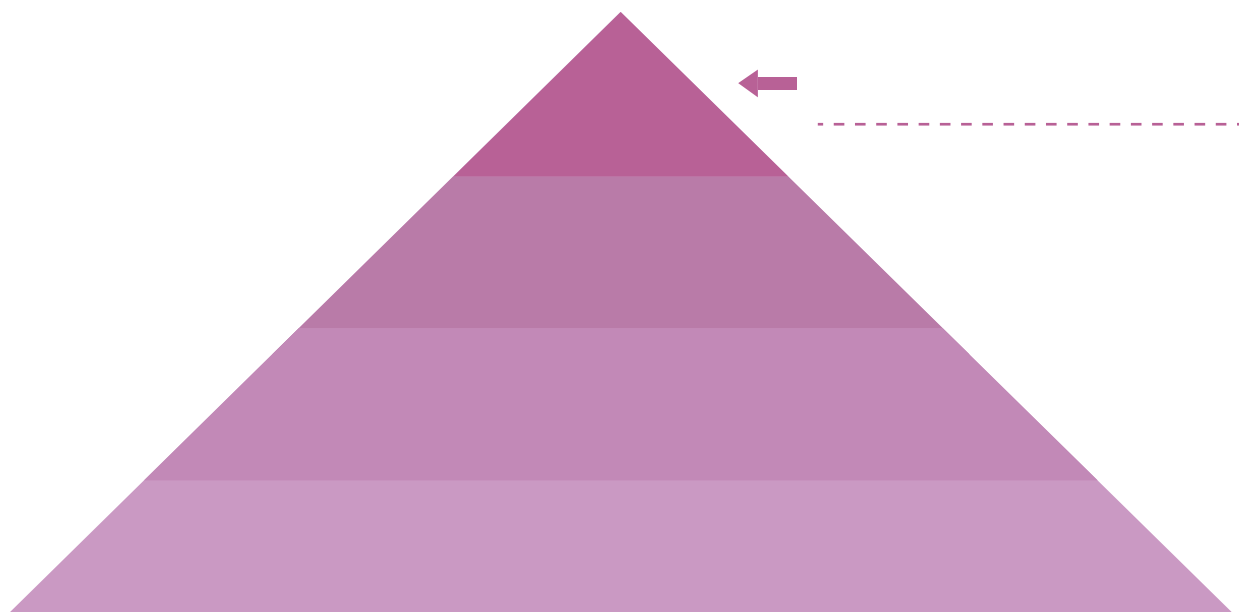
Quantitative Survey Data	Qualitative Survey Data
Can tell you what your respondents are doing	Can tell you why your respondents are doing it
Will ask questions that have pre-determined answers designed by the researcher (closed questions)	Will ask questions which allow the respondent to add their own comments (open questions)
Will have a limited number of possible answers	Can offer additional answers by adding comments via an 'Other' response option
Answers (variables) become units of measurement and are analysed numerically, for example, frequency counts, averages or measures of dispersion (range of lowest and highest numerical scores)	Answers are analysed by reading written comments from all respondents and grouping them into themes
Results for each variable can be presented in charts or tables or analysed together to show relationships between variables	Results can be described as key themes with quotes taken from respondents to help illustrate key points. Qualitative data can also be analysed quantitatively (content analysis - a frequency count of key words or phrases)
Findings can be biased by the way the researcher has designed the questions and possible answers	Findings can be biased during the interpretation of the written answers

Exploring the dominant data hierarchy for evidence-informed decision making in higher education

Often resources are focused on the observable and 'easy to measure'. Quantitative data is sometimes viewed as evidence of the 'truth' and given greater weight than other forms of data. You may hear comments about 'hard' (quantitative) and 'soft' (qualitative) evidence within your institution. Often in higher education policy making and planning, large scale quantitative data sits at the top of the data hierarchy. This infographic provides more information so you are able to challenge - see ['data fallacies'](#) for more information. Now consider the diagram below and whether you have experienced this in your role.



What types of data dominate in your context?
Can you create your own hierarchy that you can then aim to disrupt?



What evidence is often overlooked?

There are a wide range of possible sources of evidence available to you, and, as the previous exercise shows, many of these sources are easily overlooked. The table below shows some types of evidence that are often overlooked and some questions for you to think about.

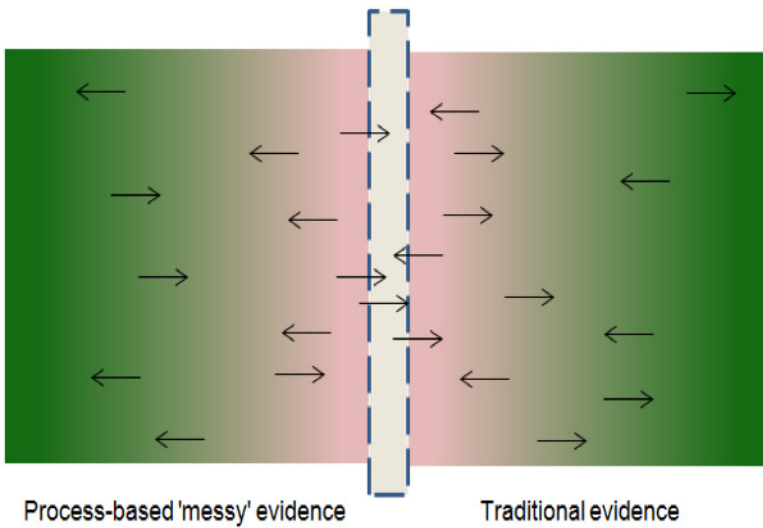
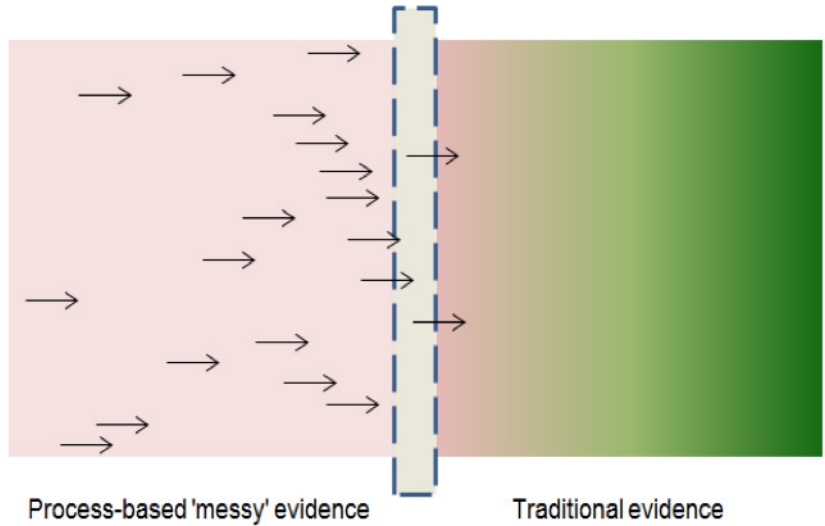
Evidence	Challenge questions
Innovative	What's written on your toilet walls and on social media? How could you make use of this feedback?
Anecdotal 'in the moment' reflections	How do you capture the end of lecture conversations?
Documentary sources	Can you systematically analyse meeting minutes, strategy documents and external examiner reports? Where is this data stored? How would you access this?
Evidence collected for a different purpose	Can you find out what had been done before and whether there is permission to share? Do you have a repository for reports, papers and data?
Evidence of failure	Lack of success is often underreported, but what are the lessons learned?
Unintended outcomes and researcher reflections	What else happened as a result of this research/evaluation?
Process based	Are you only interested in the outcome, what about how you got there?

Evidence osmosis

A more productive way of considering types of evidence might be to imagine how we can use what have often been viewed as less traditional approaches in gathering evidence. Take a look at the following diagrams. You will see how closed thinking in 'The Norm' below limits how organisations can change for the better if resistant to new forms of evidence and ideas, i.e. only a few ideas get through, if any. Contrast that with 'The Future?' diagram in which more open-mindedness about what counts as evidence shows how valuing lots of approaches can lead to useful change.

The Norm

- Limited routes for 'messy' evidence
- Minimal absorption into traditional approaches and practices
- No permeability of the traditional within process-based forms of evidence
- Minimal changes to saturation density, i.e. nothing changes



The Future?

- Fusion of process-based and traditional evidence approaches
- Possible absorption and valuing of lots of approaches
- Fully permeable
- Equalising of saturation density resulting in much learning and progress.





3.1 Evidence Essentials Three

It is important to assess the appropriateness of each data source and challenge yourself to be innovative where possible – this is how evidence becomes inclusive of all voices and less likely to keep some voices hidden and silent. It is also essential that you triangulate data sources where possible so that the limitations of one can be addressed by the strengths of another. Also consider different types of triangulation which can strengthen your evidence base – think about the data, methods, theories and researchers.



3.2 Case Study: Types of Evidence

To apply your learning, review the case study below and answer the questions to help you consider a ‘real life’ example associated to the content of this section.

Blair - Head of Department, University of Enlightenment

Within the University of Enlightenment, all Departments undergo a Quarterly Business Evaluation (QBE) of their performance. This is undertaken by a QBE panel, comprising members of the Senior Leadership Team of the University.

In Blair’s meeting, there is particular emphasis on a specific downturn in student retention in one area of the Department’s portfolio. This is highlighted by metrics presented by the Planning and Intelligence team.

The ethos of Enlightenment University is of being data-driven, so considerable attention is given to further statistical modelling and a pessimistic trajectory analysis is presented back to Blair by Planning and Intelligence concerning the financial implications of the declining retention rate.

The Senior Team leave Blair in no doubt that they are unhappy with this facet of the Department’s performance.

Blair tries to provide an explanatory narrative as the area concerned has had considerable churn due to a perfect storm of events occurring – staff illness, new curriculum, amended tariff entry structure – which have all influenced the retention rates in this area.

Given the context in which the University operates, the QBE panel give relatively short shrift to these explanations, indicating that the absence of discernible metrics make these reasons highly speculative.

Blair leaves the meeting as a very worried Head of Department and feels very disempowered by the perceived lack of ability of the QBE panel to understand subtler factors affecting performance.





**Case Study
Critique:
Using
Evidence in
Higher
Education**

Consider the following questions and then see if you can reconstruct this case to have some improved outcomes for Blair. There is an alternative, refashioned version in Appendix A which provides one approach to providing an evidence-informed enhancement of this situation. Before accessing this alternative, see if you can do any better.

- What are your immediate thoughts about the case study situation? Why does Blair feel disempowered?
- Can you identify further steps Blair could have taken to prepare for this meeting more effectively?
- Could Blair have evidenced the explanatory narrative in a different manner?
- How can Blair proactively influence the QBE process at University of Enlightenment in a constructive manner?
- What can Blair learn from the experience in order to examine ways of ensuring that the next QBE for the Department is more positive?

Notes



References and Further Reading

Bransby, T (2018) Data Fallacies to Avoid: An Illustrated Collection of Mistakes People Often Make When Analyzing Data, Data Science Central www.datasciencecentral.com/profiles/blogs/data-fallacies-to-avoid-an-illustrated-collection-of-mistakes

Heron, E (2019) Friendship as method: reflections on a new approach to understanding student experiences in higher education, Journal of Further and Higher Education, published online January 2019

QAA Scotland (2018/9) Optimising Existing Evidence: Webinar Series, QAA Scotland Enhancement Themes www.enhancementthemes.ac.uk/en/current-enhancement-theme/optimising-existing-evidence/webinar-series

sparqs (2015) Recognition and accreditation of academic reps: Practices and challenges across Scotland's colleges and universities www.sparqs.ac.uk/ch/Accreditation%20and%20Recognition%20Guidance.pdf

sparqs, Education Scotland, The Higher Education Academy Scotland, NUS Scotland, Quality Assurance Agency Scotland, Scotland's Colleges, Scottish Funding Council, Universities Scotland (2012) A Student Engagement Framework for Scotland www.sparqs.ac.uk/upfiles/SEFScotland.pdf

Digital glossary for this section

[Causality](#)

[Confirmation Bias](#)

[Correlation](#)

[Data](#)

[Evidence Base](#)

[Generalisability](#)

[Hypothesis](#)

[Quantitative](#)

[Qualitative](#)

[Questions](#)

[Sample](#)

SECTION 4: THINKING CRITICALLY ABOUT EVIDENCE IN HIGHER EDUCATION

By the end of this section you will be able to:



Ask critical questions of your evidence base.



Extend your learning, complete an information sheet which clearly and concisely outlines the scope of your project.



Apply your learning, review the case study to help you consider a 'real life' example associated to the content of this section.

How critical are you?

If you can, take some time to think about your own **critical thinking** before you apply this to your evidence base. Explore the 10 statements below which argue a particular position. Do these sentences make sense? Please discuss - which are true, false or contested? You can find possible answers and a critical rationale explaining the reasons for those answers at the end of this section. Have a go first!

Statement	True	False	Don't know
1. Lecturers eat fruit. Vegetarians also eat fruit. All lecturers are therefore vegetarian.			
2. I know that I can give 110% to this assessment task.			
3. This course contains some small-scale exams but really it is virtually exam-free.			
4. All Students' Association hoodies are grey until you see a red one.			
5. In a previous life, I would have taught law.			
6. All students want to be satisfied. When they are dissatisfied it is because they have either a) not understood what really makes them satisfied or b) they are just unwilling to look at situations positively.			
7. Charging students fees for higher education is morally unacceptable as a recent poll shows that 54% of the UK population thinks so.			
8. Dr Know-All is a Nobel prize-winning scientist who insists that learning quantum mechanics is not that difficult if students' learning is scaffolded appropriately. That's easy for her to say as she is obviously gifted, so you should pay no attention to her ideas.			
9. An unemployed careers advisor gave me advice on how to help students to get a job. As if I am going to take any notice of their opinion!			
10. Always telling the truth with your work colleagues is the right thing to do as people have a right to total honesty.			

What critical questions should you ask of evidence?



The following content and resources might help you to answer some of these questions.

Ethical dilemmas

It is important to ask ethical questions of your proposed project at the beginning of the process. This applies to projects which are accessing secondary sources or **collecting primary data**.

If you are collecting primary data with **research participants** you will need a clear information sheet and a consent form that can be signed and returned. Writing an information sheet is a good way of rephrasing and simplifying your ideas for a more general audience.

If you are using data collected by others you should attempt to find out how ethical practice was ensured during data collection. You can use the following templates to guide you:

What should you be asking yourself?	What should you have in your information sheet?	
<p>Have research participants provided informed consent to have their data analysed for this purpose?</p>	What's this about?	We would like to work with you to ...
	What will happen?	We will ask you to ...
	How long will it take?	Data collection will take ...
	Consent	If you agree to these conditions, please complete and return the attached consent form.
<p>Do research participants understand the rationale and process involved, including how their data will be used and the boundaries of confidentiality and anonymity?</p> <p>Have you provided research participants with a time bound right to withdraw?</p>	Your rights	<p>You do not have to discuss anything that you feel uncomfortable with. You will remain anonymous/your data will be anonymised by...</p> <p>You do not have to take part in this project, the process is entirely voluntary, and you can withdraw from it within [add time limit] of data collection without giving us an explanation.</p>
<p>Are you GDPR compliant in relation to privacy and data storage?</p>		<p>In line with new Guidelines for Data Protection Regulation, this research adheres to the Privacy Notice to Research Participants which can be accessed [insert link].</p>
<p>Have you fully considered and mitigated for any possible harm that could arise from participation in this research?</p>	Risks?	<p>You may find discussing some of your experiences upsetting, and if you wish to withdraw from the data collection you can do so at any point without giving a reason why. Staff will be able to signpost you onto necessary support services, or access the links below [insert link].</p>
<p>Are you offering any incentives for participation?</p>	Benefits?	<p>In return for your participation we will be offering...</p>
<p>How can participants contact the research team for queries and concerns?</p>	For further information	<p>For further information or to ask any questions regarding this project please contact [insert name and contact details].</p>
<p>How are participants ensured of ethical scrutiny?</p>		<p>All university research is reviewed to ensure that participants are treated appropriately and their rights respected. This study was approved by [insert committee], number [insert reference number]. Further information at [insert link]</p>

Draft Consent Form	Yes	No
1. I have read the Information Sheet for this study and have had details of the study explained to me.		
2. My questions about the study have been answered to my satisfaction and I understand that I may ask further questions at any point.		
3. I understand that I am free to withdraw from the study within the time limits outlined in the Information Sheet, without giving a reason for my withdrawal without any consequences.		
4. I wish to participate in the study under the conditions set out in the Information Sheet.		
5. I consent to my anonymised data/data anonymised once analysed [delete as appropriate] being used as follows: a) shared with _____ b) viewed by _____ c) used for _____		

Here is some useful further reading on ethics in higher education research:

Code of Practice for Learning Analytics - using student data as a basis for action/intervention
www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics

Ethical Guidelines for Educational Research

www.bera.ac.uk/researchers-resources/publications/ethical-guidelines-for-educational-research-2018

The Research Ethics Guidebook: A Guide for Social Scientists

www.ethicsguidebook.ac.uk

Institutional Research and Evaluation Typology - conditions for formal ethical approval

wonkhe.com/blogs/it-aint-what-we-do-its-the-way-that-we-do-it-researching-student-voices



Factors affecting the validity and reliability/trustworthiness and authenticity of evidence

It is important to ask ethical questions of your proposed project at the beginning. If you are collecting your own data, it is important to consider the factors that may affect your ability to report your findings with confidence. If you are using data collected by others, you will be unable to change the inherited design and your appraisal will determine whether the identified data becomes part of your evidence base.¹

1. Problem: The research instrument is not measuring what it was designed to measure as the questions are not aligned to the objectives of the project.

Example: Your aim was to find out about academic writing needs but the questionnaire is finding out what *attitudes respondents have to library services*.

Considerations: Develop an adequate evidence base to help design the instrument and if possible, test it via a [pilot study](#). Remember that these can be subjective judgements about definitions, constructs and measures; there is no 'right' approach only a 'defensible' approach which shows that action has been taken to mitigate risk. Sometimes a funder, sponsor or [gatekeeper](#) will ask for questions to be added to a questionnaire for other purposes. In these circumstances you will need to balance methodological rigour with the feasibility of the project's success. If the data is from a secondary source (not collected by you as researcher), consider whether it is appropriate to use.

2. Problem: The quality of the data gathered across five focus groups is variable.

Example: A research team of five student researchers each conducts a focus group with students on their course to discuss the use of their virtual learning environment. Some focus groups last 15 minutes and some last for 45 minutes.

Considerations: The physical setting, participant mood, interviewer mood, confidence, skills and presentation, group dynamics and incentives can all affect the reliability of data collection. To mitigate, pilot the data collection process with the research team, attempt to ensure some consistency, and keep reflective diaries which describe any factors affecting the set and setting which can be reported alongside your findings.

¹ Some of the following has been adapted from Kumar (2011: p182)

3. Problem: The researcher is unsure whether the data collected in an interview can be trusted.

Example: During a series of 10 interviews with Programme Leaders about the importance of work experience for students, one participant stood out as contradicting the collective view of the others.

Considerations: Not all data will lead you to the same conclusion. You could explore the reason for this difference of opinion in more detail (was it caused by the research process - see Problem 2 - or something else?). You may conclude that this participant is an outlier. You could also actively explore the trustworthiness of the data by reviewing and confirming the transcript with the respondent and triangulating the data with other sources.

Have you had an experience like this? What questions did you ask and what decision did you make?



4.1 Evidence Essentials Four

Critical thinking will develop alongside your confidence at navigating the data landscape. You will be required to make some tough decisions about what you can realistically achieve. You will need to scrutinise processes and defend your judgements. You will need to assess best practice and modify for your own context. Be open and honest in sharing what's worked and what hasn't. This will help those colleagues who begin this journey after you.

How critical are you? Some possible answers. What do you think?

Statement	True	False	Don't know
<p>1. Lecturers eat fruit. Vegetarians also eat fruit. All lecturers are therefore vegetarian.</p> <p>This is a spurious association. The wrong connection is made between two independent phenomena. Lecturers' dietary choices are not governed by those who are vegetarian.</p>		X	
<p>2. I know that I can give 110% to this assessment task.</p> <p>This is inaccurate logic. By its very definition, '100%' is a finite and absolute entity, therefore it cannot be extended. There is a possible argument for using an over-extended absolute (in this case 110%) which, although illogical, is being used euphemistically to exaggerate the point.</p>		X	
<p>3. This course contains some small-scale exams but really it is virtually exam-free.</p> <p>This is limited absolutism - it misses the point. The language used here doesn't help. If the course contains exams, it can't be 'exam free', virtually or otherwise.</p>		X	
<p>4. All Students' Association hoodies are grey until you see a red one.</p> <p>This is false empiricism. Just because you have observed something consistently within your own context, this doesn't mean that alternatives don't exist elsewhere which then make the statement invalid.</p>		X	
<p>5. In a previous life, I would have taught law.</p> <p>This is false hindsight. You can't know what would have happened retrospectively as all kinds of contexts might have affected decisions made at the time.</p>		X	
<p>6. All students want to be satisfied. When they are dissatisfied it is because they have either a) not understood what really makes them satisfied or b) they are just unwilling to look at situations positively.</p> <p>These are inaccurate assumptions and inferences. The problem here concerns the assumption that all students want to be satisfied. In this statement, 'satisfied' is treated as a unitary concept, i.e. one which has the same meaning for all, yet we have no idea whether this is the case beyond speculation. Therefore, the inference (a conclusion reached on the basis of evidence and reasoning) is also speculative and potentially inaccurate.</p>		X	
<p>7. Charging students fees for higher education is morally unacceptable as a recent poll shows that 54% of the UK population thinks so.</p> <p>This is an Ad Populum fallacy (meaning 'appeal to the people'). Using the idea of the greatest number agreeing in order to justify an opinion does not necessarily make the opinion more accurate.</p>		X	
<p>8. Dr Know-All is a Nobel prize-winning scientist who insists that learning quantum mechanics is not that difficult if students' learning is scaffolded appropriately. That's easy for her to say as she is obviously gifted, so you should pay no attention to her ideas.</p> <p>This is an Ad Hominem fallacy (meaning 'to the man' or personalising the argument). This way of thinking mixes up assumptions about evidence that are known (i.e. Dr Know-All is uncontestedly a Nobel prize holder) with evidence that is really opinion about the person dressed as 'fact' (i.e. personal qualities that Dr Know-All may, or may not, have).</p>		X	
<p>9. An unemployed careers advisor gave me advice on how to help students to get a job. As if I am going to take any notice of their opinion!</p> <p>This is a Tu Quoque fallacy (meaning 'you too' or turning the critique back against the proposer). Confusion displayed here about the personal status and context of an individual and their ability to be able to act in a professional capacity to offer appropriate advice.</p>		X	
<p>10. Always telling the truth with your work colleagues is the right thing to do as people have a right to total honesty.</p> <p>This is equivocation (ambiguous meaning(s) or specifically relating to misinterpretation of words). Mix up between rights conferred in law (eg human rights) and the right moral action to take, which in this case is really about meeting desirable behaviours and expectations.</p>		X	



4.2 Case Study: Thinking Critically about Evidence in Higher Education

To apply your learning, review the case study below and answer the questions to help you consider a 'real life' example associated to the content of this section.

Ali - PVC Partnerships at Nudge University

Ali is the newly-appointed PVC at Nudge and is taking a proposal for a significant strategic partnership to Academic Board, after which it should progress to Court for final approval.

The proposal has already navigated the Partnerships Committee successfully and Ali doesn't foresee any obvious problems with the proposal going to Board.

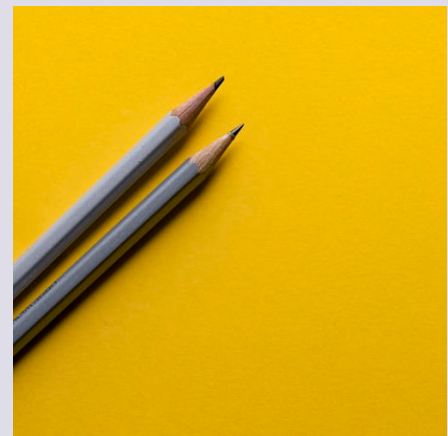
The paperwork is duly submitted in good time and Ali is surprised when invited to an urgent meeting to discuss the paper with the VC as Chair of the Board.

In the meeting, the VC explains that there are two potential problems with the proposal. The first concerns the reputation of the proposed partner as, although due diligence has been completed, the VC has heard anecdotally from a variety of sources that the partner organisation's Senior Team 'is a nightmare to work with'.

The second issue relates to the Chair of Court holding business interests which are in direct competition with the proposed partner organisation. The VC indicates that, whilst this should not be a problem which can't be resolved through normal governance processes, she would prefer it if Nudge avoided any potential damage to an already excellent relationship with Chair of Court.

She asks that Ali withdraws the paper and that these wider issues are resolved satisfactorily with agreement of all of Nudge's Executive Leadership Team, prior to the proposal going further at this stage.

Ali is completely bamboozled by the outcomes of this meeting and is really cross that the proposed partnership has been paused.





Case Study Critique: Using Evidence in Higher Education

Consider the following questions and then see if you can reconstruct this case to have some improved outcomes for Ali. There is an alternative, refashioned version in Appendix A which provides one approach to producing an evidence informed enhancement of this situation. Before accessing this alternative, see if you can do any better.

- What are your immediate thoughts about this case study? Why does Ali feel bamboozled?
- Can you identify any further steps Ali could have taken to prepare for this meeting more effectively?
- What further evidence does Ali need to consider before deciding if this proposal can still be pursued?
- How can Ali learn from the experience in order to become more effective as an evidence-informed PVC for Partnerships at Nudge?



References and Further Reading

JISC (2018) Code of Practice for Learning Analytics

www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics

Katsomitros, A (2017) Big data - disruptive, distracting or adding value? London: Leadership Foundation for Higher Education

Lumby, J (2015) In the wings and backstage: exploring the micropolitics of leadership in higher education London: Leadership Foundation for Higher Education

sparqs (ND) Supporting Students

www.sparqs.ac.uk/support-students.php

sparqs, Education Scotland, The Higher Education Academy Scotland, NUS Scotland, Quality Assurance Agency Scotland, Scotland's Colleges, Scottish Funding Council, Universities Scotland (2012) A Student Engagement Framework for Scotland

www.sparqs.ac.uk/upfiles/SEFScotland.pdf

Tan, E R, Murray, M R and Loughlin, E (2019) Who's asking? An alternative methodology for engaging students in evaluation exercises Student Engagement in Higher Education Journal 2(2): pp 29-46

Digital glossary for this section

[Anonymity](#)

[Gatekeeper](#)

[Pilot](#)

[Confidentiality](#)

[GDPR](#)

[Validity/Reliability](#)

[Critical thinking](#)

[Informed consent](#)

[Authenticity/Trustworthiness](#)

[Data](#)

[Research](#)

SECTION 5: EXISTING DATA SOURCES IN HIGHER EDUCATION

By the end of this section you will be able to:



Describe the sources of data which currently exist in higher education.



Extend your learning, complete the mapping activity of data sources which exist within your institution.

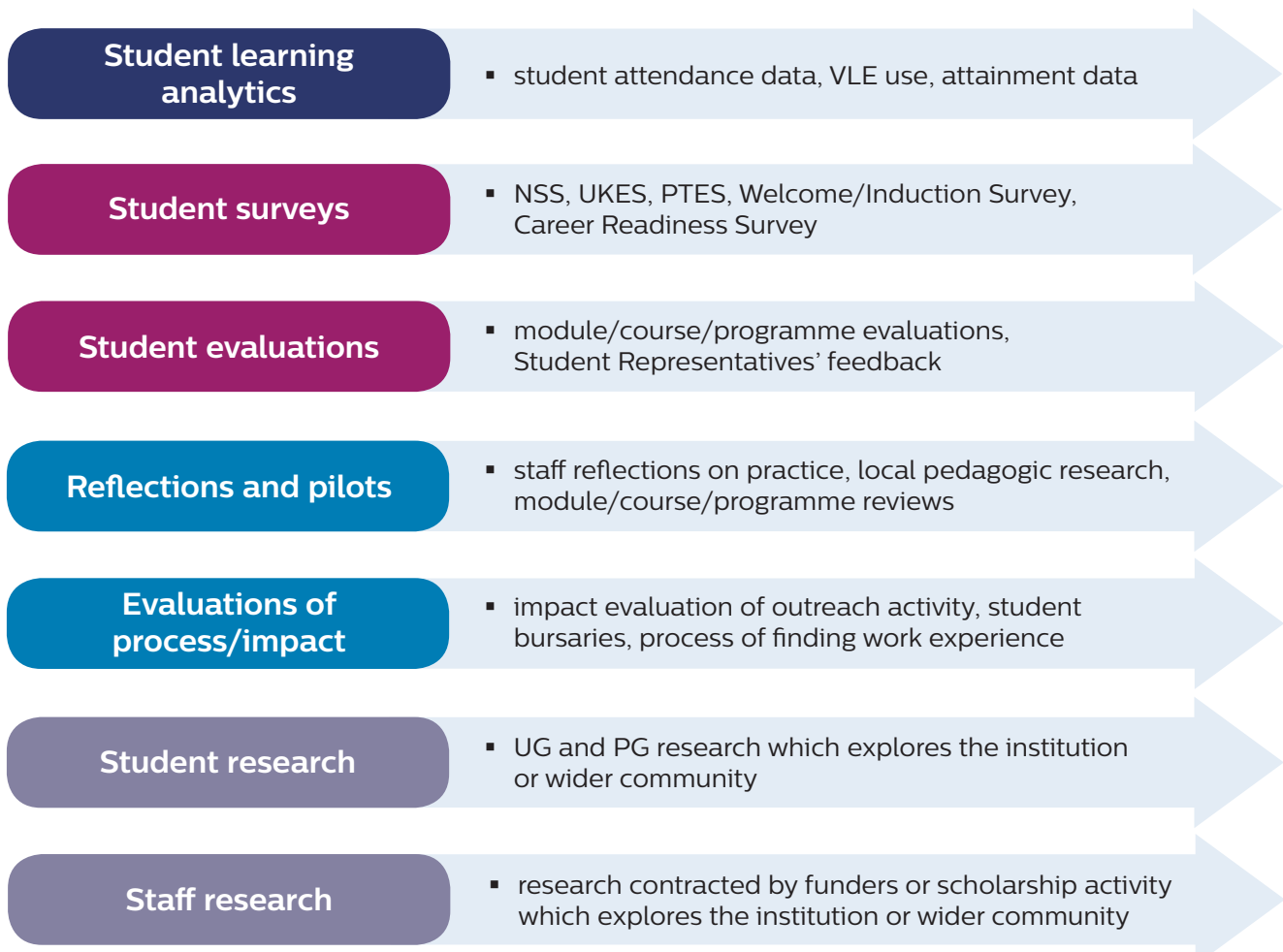


Apply your learning, review the case study to help you consider a 'real life' example associated to the content of this section.

Where can you find existing data?

Secondary data analysis allows researchers to use **data** which they have not collected themselves but will help answer their research question. It is useful to explore what secondary (existing) sources are available to you before you embark on any new **(primary) data collection**. This could save you time and resources, provide some insight into previous findings, add to your rationale for conducting your project, or provide sources which can eventually be **triangulated**.

The diagram below provides an overview of the type of **research** and **evaluation** that takes place within a higher education institution and examples of existing data sources that may exist (Austen 2018, 2019).



When you engage with evidence, you should always ask yourself these critical questions:

WHY? Why was the data collected? The reason may be different to your own line of inquiry and this may create bias that you will need to acknowledge.

WHO? Who collected and now stores the data? You will need to explore whether they have permissions to share this with you for your intended purpose.

HOW? How was the data collected? The methodology and the sample will create some parameters for the analysis that you will need to work within.

WHAT? What are the limitations of the data? You will need to assess the inherited limitations of the secondary data source AND the limitations of carrying out your secondary data analysis.

To find out more about some of these data sources, and how they could be used, have a look at:

Intangible assets	QAA Scotland resource by Robertson, Cleaver and Smart (2019) maps ' intangible assets ' - not forgetting the things that are important that cannot be easily measured.
Sector data	HESA (Higher Education Statistical Agency): publish data on all aspects of the UK higher education sector
	Office for Students : provide advice and guidance on Teaching Excellence Framework data
	Discover Uni : compares UK higher education course data
Student analytics	JISC : includes guidance and services to explore data collection and analysis
	QAA Scotland webinar by Bart Rientes : The Power of Learning Analytics to Unpack Learning and Teaching: A Critical Perspective
Student Survey Data	HE Data Landscape Tool : 13 individual data guides on key data sources, collections and applications
	QAA Scotland webinar by Alex Buckley : Making Sense of Surveys

It will take some time to find out what data already exists within institutions, so build this into your project planning. If you are planning a project, complete the typology below and map out the existing data sources in your area of interest.

If you are not yet working on a project, choose a topic of interest or work through the illustrative example below:

Research question:

Is the current academic timetable supporting a positive learning experience for students on Nursing courses?

Student learning analytics

Student surveys

- NSS Q16: “The timetable works efficiently for me” filter for BSC Nursing (Adult), BSC Nursing (Child)

Student evaluations

Reflections and pilots

Evaluations of process/impact

Student research

Staff research

Finding new secondary sources: thinking outside the (NSS) box

You should give some thought to where you might find useful evidence. Can you be creative, gather insightful data and save some time and resource?

To make the most of the range of evidence available to you, you will need to think outside of the (NSS) box.

Sometimes data and evidence already exists...but it's not called data, or it hasn't been analysed in a way that allows you to easily add to your evidence base, or it isn't what you (or colleagues) would usually engage with.

For example, **qualitative** comments from documentary sources (such as a recent course or programme review) will not have been collected for research purposes but can be rich secondary sources of data if you can find a way to gather and sort the information you need.

Always check you have permission for **analysis**. Section 4 discusses ethical considerations in more detail.

Consider the following examples and suggested further reading:



Data type	Such as...	Useful resources
Social media commentary	Student comments posted on Twitter or Instagram	Townsend L & Wallace, C University of Aberdeen: Social Media Research: A Guide to Ethics
Official documents	Minutes of meetings (eg staff/student committees led by Student Representatives, Students' Association forums) or external examiner reports	Coffey, A (2014) Analysing Documents in The SAGE Handbook of Qualitative Data Analysis
Student-led Teaching Award nominations	Student-led award nominations for teaching excellence or support	Lubicz-Nawrocka & Bunting (2019) Student perceptions of teaching excellence: an analysis of student-led teaching award nomination data, Teaching in Higher Education, 24:1, pp63-80 QAA Scotland. Feedback from Assessment project: Student-Led Teaching Award Nomination Data
Assessment	Using student assessment grades to show learning gain (impact)	Higher Education Pedagogies Journal, Learning Gain in Higher Education (2018, 3:1)

What other information could you access and use as data within your institution? (Make sure you ask yourself the 'Why? Who? How? What?' questions above for these new secondary sources of data.)

You may decide that your **analysis** of these secondary sources provides enough evidence for decision making...

But you may now realise that more data is required to explore an area in detail or to access voices within the populations which are not currently represented. Section 6 discusses collecting new data.



5.1 Evidence Essentials Five

There is a vast amount of data available that could help explore almost any area of higher education. Sometimes this data landscape can be overwhelming. Start any project with a set of clear aims and objectives and a question that you want to answer. Ask yourself 'What do I want to find out about this chosen area?' Then ask critical questions of your proposed data sources.



5.2 Case Study: Existing data sources

To apply your learning, review the case study below and answer the questions to help you consider a 'real life' example associated to the content of this section.

Madison - Business Planning Officer, University of Datadwelling

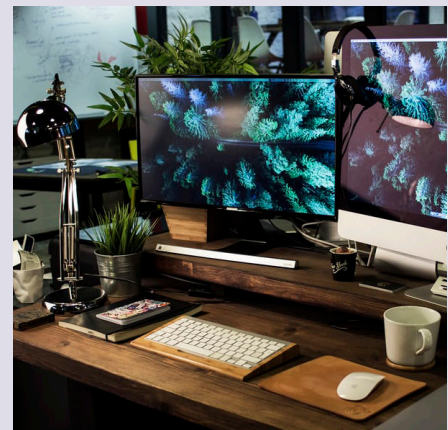
Madison has been identified as a key project worker to support data requirements underpinning the University of Datadwelling Business School review of the MA in Human Relations Management.

Principally, the School wants to move from a taught on-site delivery mode (which is struggling to recruit) to distance learning (DL) delivery in the space of an academic year. The rationale being that it will be much more financially viable to do so, especially as a corporate DL private provider is being brought in as part of a managed partnership approach.

The Project Team has already outlined key objectives relating to financial outcomes, staffing costs and marketing process. It is now turning its attention to student experience. The Dean and School Business Review Manager, both of whom are qualitative researchers by background, meet with Madison, who is briefed and given an outline of the following data processes which they expect the Business Planning Office to support, involving:

- Examining perceptions of existing students about moving to full DL delivery.
- Doing a comparative analysis with one other University, which they feel can be facilitated easily due to the Dean's previous employment links with the HEI concerned.
- Obtaining perceptions of the DL private provider students, to be collated as part of evaluation materials already gathered by the provider.

Madison is uncomfortable with this approach for several reasons but feels wary of making suggestions for improving the proposed data collection processes. The meeting closes with agreement that Madison will coordinate the evidence-gathering process as outlined. The misgivings remain unexplored.





Case Study Using Evidence in Higher Education

Consider the following questions and then see if you can reconstruct this case to have some improved outcomes for Madison. There is an alternative, refashioned version in Appendix A which provides one approach to producing an evidence informed enhancement of this situation. Before accessing this alternative, see if you can do any better.

- What are your immediate thoughts about the case study situation? Why does Madison feel uncomfortable with the suggested approach?
- Can you identify any further steps Madison could have taken to prepare for this meeting more effectively?
- What existing data sources could Madison have brought to the meeting in order to influence the Dean and Business Review Manager?
- How can Madison learn from this experience and what are the pressing actions that need to be given urgent attention?

Notes



References and Further Reading

Austen, L (2019) Using Evidence for Enhancement

https://blogs.shu.ac.uk/steer/2019/01/16/using-evidence-for-enhancement/?doing_wp_cron=1556880565.4775419235229492187500#

Austen, L (2018) 'It ain't what we do, it's the way that we do it'
– researching student voices, WonkHE, 27 Feb 2018

<http://wonkhe.com/blogs/it-aint-what-we-do-its-the-way-that-we-do-it-researching-student-voices/>

Coffey, A. Analysing Documents in Flick, U. (2014) The SAGE Handbook of Qualitative Data Analysis (online),

<https://methods.sagepub.com/book/the-sage-handbook-of-qualitative-data-analysis/n25.xml>

Jones-Devitt, S and LeBihan, J (2018) Use and abuse of the student voice: leaders' responsibilities for making positive use of student evaluations of teaching in Higher Education York: AdvanceHE.



References and Further Reading

Langan, A M and Harris, W E (2019) National student survey metrics: where is the room for improvement? Higher Education (Online April 2019)

Lubicz-Nawrocka, T and Bunting, K (2019) Student perceptions of teaching excellence: an analysis of student-led teaching award nomination data, Teaching in Higher Education, 24:1, pp 63-80
www.tandfonline.com/doi/abs/10.1080/13562517.2018.1461620

O'Donovan, B, Price, M and Rust, C (2004) Know what I mean? Enhancing student understanding of assessment standards and criteria Teaching in Higher Education, 9(3): pp 325-335

QAA Scotland (2018) What does Student-Led Teaching Award nomination data tell us about student perceptions of 'good' feedback?
www.qaa.ac.uk/scotland/focus-on/feedback-from-assessment

Robertson, A, Cleaver, E, & Smart, F (2019). Beyond the metrics: identifying, evidencing and enhancing the less tangible assets of higher education
www.enhancementthemes.ac.uk/docs/ethemes/evidence-for-enhancement/beyond-the-metrics-identifying-evidencing-and-enhancing-the-less-tangible-assets-of-higher-education.pdf

Townsend L and Wallace, C (2016) University of Aberdeen: Social Media Research: A Guide to Ethics
www.gla.ac.uk/media/media_487729_en.pdf

Various (2018) Special edition of the Higher Education Pedagogies Journal, Learning Gain in Higher Education (2018, 3:1)
www.tandfonline.com/toc/rhep20/3/V1?nav=toCList

Digital glossary for this section

[Analysis](#)

[Primary data](#)

[Secondary data](#)

[Data](#)

[Qualitative](#)

[Triangulation](#)

[Evaluation](#)

[Research](#)

SECTION 6: COLLECTING DATA IN HIGHER EDUCATION

By the end of this section you will be able to:



Make decisions about the most appropriate data collection method for your project.



Extend your learning, explore what else could you do by doing your own research on alternatives to surveys and focus groups.

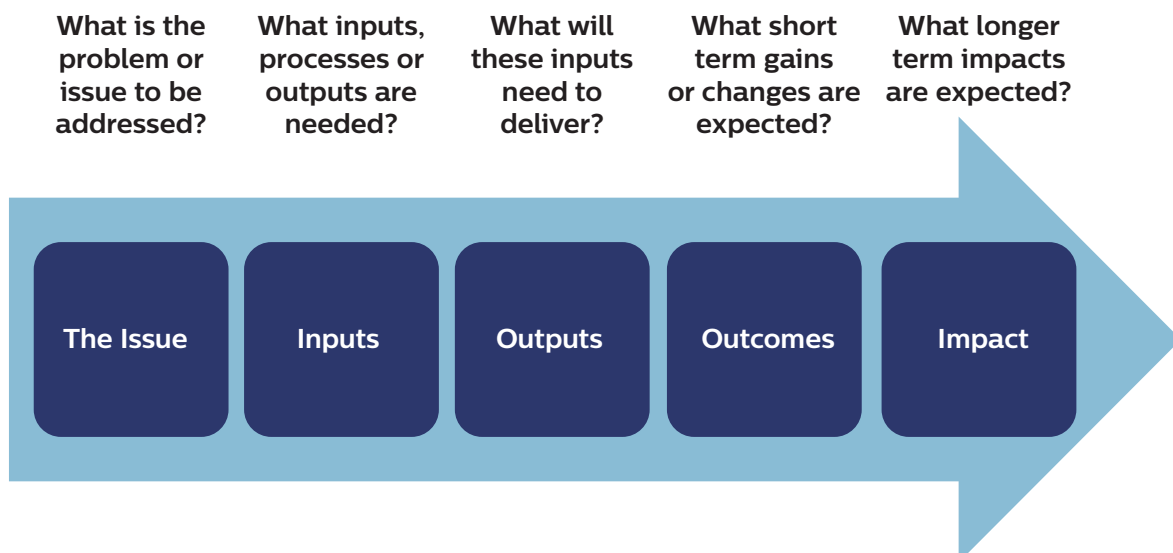


Apply your learning, review the case study to help you consider a 'real life' example associated to the content of this section.

Section 4 of this Guide discusses thinking critically about: rationale; research questions; governance; ethics; strategy and design. Section 5 introduces [secondary data analysis](#) which adopts the methodology and data collection used by others and covered data from a variety of secondary sources. This section focuses on designing new tools ([research instruments](#)) to collect and analyse new primary data for either research (new knowledge) or evaluation (decisions about process and impact).

The evaluation process

Any evaluation starts with a basic idea, issue or problem to be addressed or explored. You then decide what inputs (such as processes and resources) are required. Inputs need to be linked to delivering some outputs. These outputs can then be related to gains (or outcomes) that you anticipate occurring as a consequence. Finally, the longer-term sustainability (or impact) of the change is considered and consolidated, revised, scaled accordingly, as detailed in the 'logic chain' diagram below (adapted from The Magenta Book, 2011). This is the approach adapted by Liz Thomas and applied to [QAA Scotland Enhancement Theme activity](#). In order to evidence outcomes and impact, data will need to be collected using evaluation and research methods.



Evaluation resources

The [Scottish Framework for Fair Access](#) has produced a toolkit which aims to identify knowledge gaps, enhance evaluation and source the best available evidence relating to widening access. These resources are also transferable to a teaching and learning context.

The Office for Students has produced [guidance documents](#) for collecting evidence of impact. These relate to Outreach, Access and Participation and Financial Support and are based on work by the [Centre for Social Mobility](#). This is also complimented by [TASO](#), which has been created as a national body for supporting evidence and impact.

A checklist for working through robust practice, produced by Sheffield Hallam University, can be found here: [STEER Evaluation Checklist](#).

The TSEP [Student Engagement Evaluation Framework](#) (pp 32-34) written by Liz Thomas also provides a useful framework which can be applied to main areas of higher education.

The [Research Leader's Impact Toolkit](#) (AdvanceHE) resource covers 'evaluating', and includes useful indicators of success.

The research process



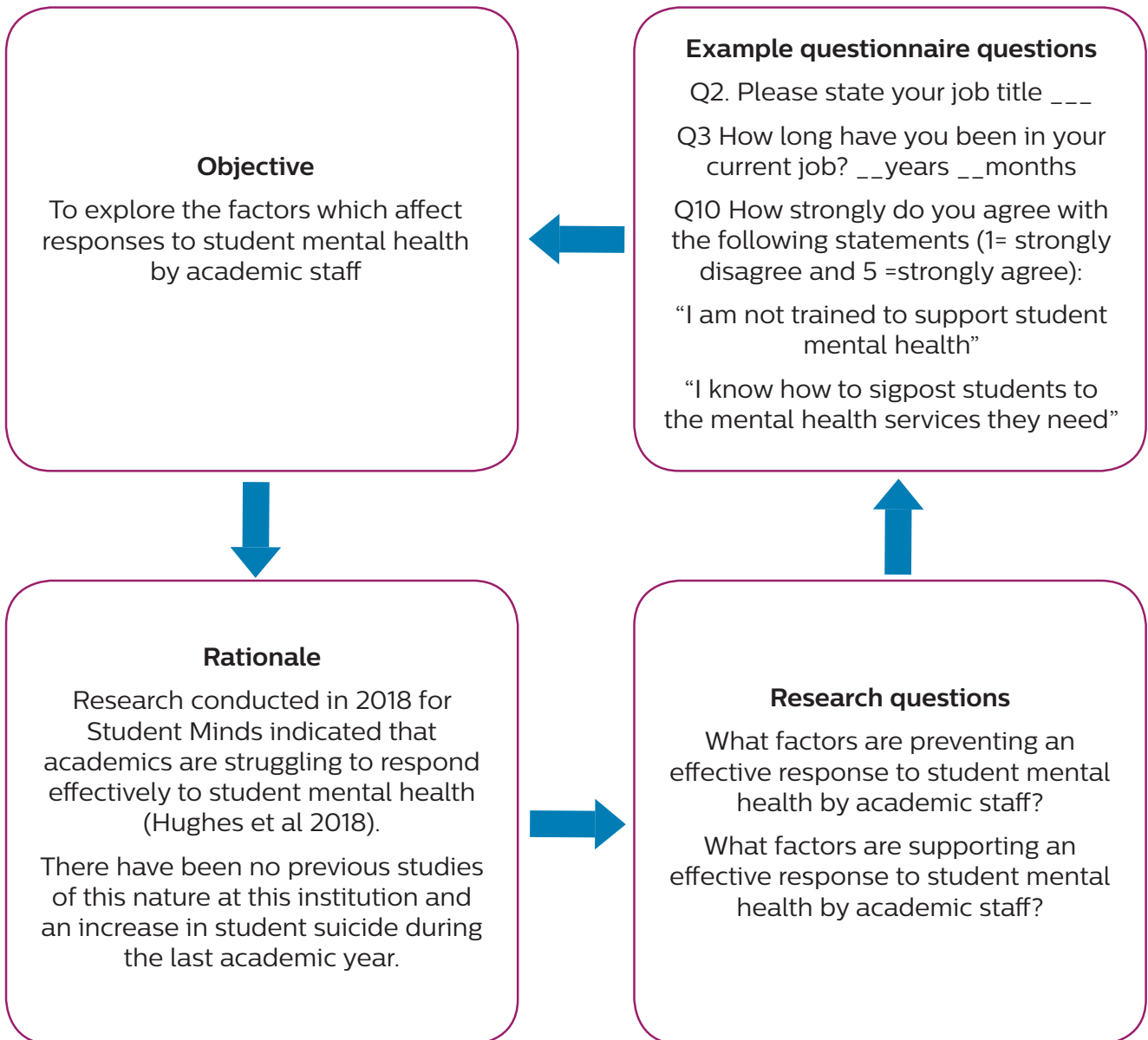
In Section 3 we suggest that data hierarchies exist in higher education. Some types of [data](#) carry more weight than others and are more likely to be used to inform decision making. As data is generated from a [method](#), it follows that certain methods are privileged over others and used more often. There are good reasons for using a method with known strengths.

The [Randomised Control Trial](#) is often viewed as a superior form of evaluation due to its underpinning empiricism and ability to evidence cause and effect using control groups. However, randomisation requirements may be impractical in 'real-life' contexts and the messiness of process and possible emergence of confounding variables may make this method unsuitable for measuring student experiences.

Size and reach within a cross section of the student population at a single point in time will mean that a survey method, using a questionnaire as the research instrument, will be a good choice. A survey can provide quantitative and qualitative data derived from [closed and open questions](#). Alternatively, focus groups can provide detailed qualitative data on a specific topic area. The researcher is able to analyse the spoken words and also reflect on social interactions, body language and group dynamics, and how any consensus is reached (or not).

Question mapping

It is important that any questions constructed by the researcher (for example, in a questionnaire or a focus group schedule) are based on a clear rationale AND linked to aims/objectives. This will create a logical process from analysis to [synthesis](#) once the data has been collected.



Five methods - what you should and shouldn't do

If you choose to do a survey with students or staff, then...

Survey Do	Survey Don't
Use simple language and question construction	Avoid asking ambiguous, leading or double-barrelled questions
Pilot your survey to see how long it takes to complete, and whether the questions make sense and are in a logical order	Optimum survey length is 13 minutes to complete. Don't include too many questions or questions that are too complicated to answer
Make the survey easy to access (including for mobile devices if online)	Access links to anonymity . Don't create a generalised/open link if you want to track respondents from existing data or send personalised reminders to encourage completion
Vary questions types to include open (qualitative data) and closed (quantitative data) questions	Remember to plan for how all questions will be analysed. Don't add questions without a clear rationale
Promote the survey via known contracts/trusted sources to increase your response rate	Survey fatigue is an important consideration. Don't plan a survey without understanding your sample and their involvement in other data collection

You could use a Survey Research Design Checklist when designing your student surveys, such as <https://blogs.shu.ac.uk/steer/files/2018/09/SRDC.pdf>

If you choose to do a focus group with students or staff, then...

Focus Group Do	Focus Group Don't
Create a comfortable and welcoming environment for the data collection	The role of the moderator is important. Don't underestimate the skill required to encourage participation and deal with uncomfortable situations such as disagreement
Use a focus group to explore views and opinions AND how the group interacts during the discussion	An audio transcript can provide evidence of spoken interactions. Don't ignore visual aspects such as participant body language when reacting to silences or dominant voices. Making reflective notes during or directly after the session will help
Make the data collection engaging. Consider an activity (making lists, ranking/rating, storytelling, and game playing) to help generate discussion	Testing your focus group activity in your research environment will allow you to develop your confidence as a moderator. Don't assume that a pilot is unnecessary, so build this time into your project plan
Limit the number of participants to fewer than 10. Be prepared to adapt your activity if you have fewer than expected so the session is still engaging	Focus groups may last longer than an interview with a single respondent because there are multiple voices in the discussion. Don't plan for any less than an hour in length
Be strategic about who you invite to your focus group. Do you want a group with similar or divergent views? How will you access them?	Trust is a crucial element of a successful focus group. Don't invite participants that will unsettle others and close down discussions. Consider any power dynamics and conflicts of interest

Plan your focus group carefully. Think through different ways of engaging your participants. There are some ideas for engaging focus groups at: <https://blogs.shu.ac.uk/steer/2019/05/01/thinking-pedagogically-about-qualitative-research-in-he/> Survey and focus groups are useful approaches, but what else could you do?

Other research methods that are well suited to research in higher education include:

Interviews



...qualitative data collected from discussions with individual participants using a schedule of questions. Participant responses are interpreted through analysis.

Observations



...direct eyewitness accounts of behaviour and activity as it happens. Researchers can either observe as a participant or a non-participant.

Documentary analysis



...qualitative comments from documentary sources will not have been collected for research purposes but can be rich secondary sources of data if you can find a way to gather and sort the information you need for analysis. Always check you have permission for analysis.

Action research



...links research with practice such that the researcher constructs a process of change for practitioners and collects data through interviews or observations.

Experimental research/evaluation



...creates controlled conditions or comparator groups such that cause and effect can be explored.

In depth case studies



...can gather evidence for causal, or at least associative, impact assessment concerning what works

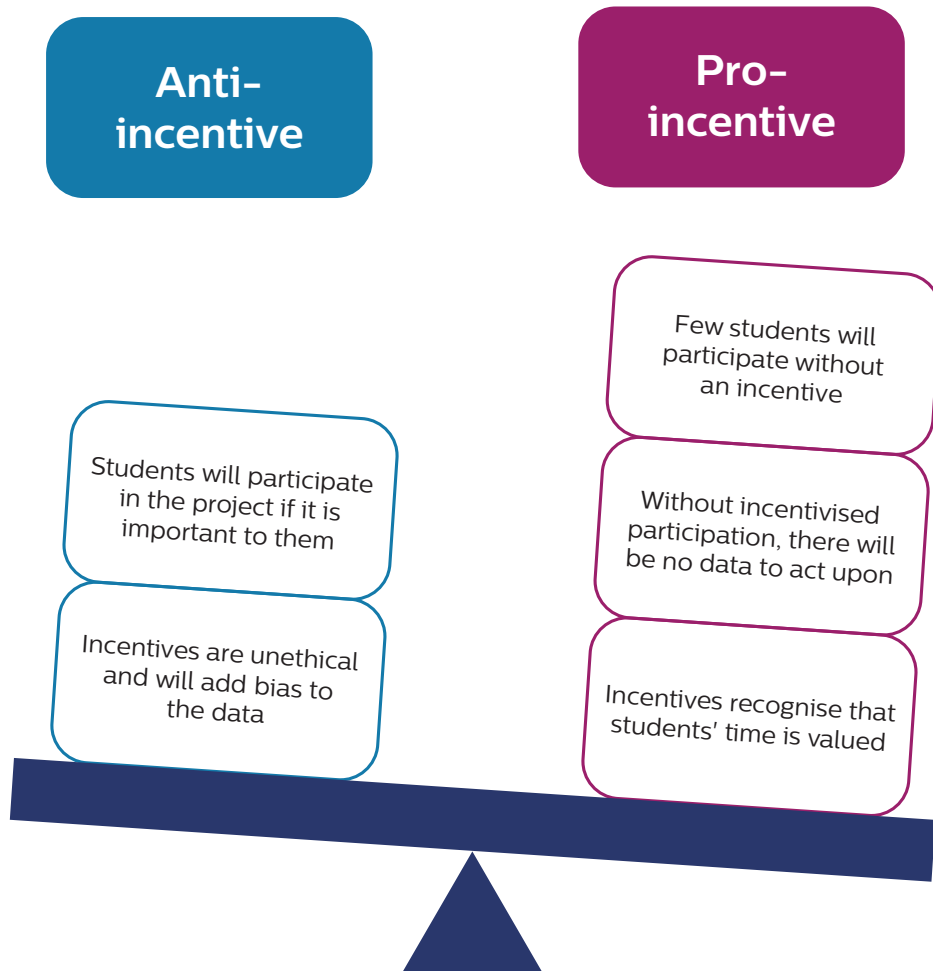
Longitudinal reviews



...such as via the use of Appreciative Inquiry (Cooperrider and Whitney, 2000) as a basis for initiating, examining and potentially attributing positive change over time.

Incentives

It is increasingly common for research in higher education to offer incentives to students, and sometimes staff, to encourage participation. There is a debate to be had, at the point of design, about the necessity for incentives which can include cash, gifts, vouchers, credit, lottery prize draws and charitable donations.



Choose what is the most appropriate for your data collection. Be honest about the use of incentives in any reporting, including your rationale and acknowledgement of any associated limitations. [Head \(2009\)](#) explores this in more detail and suggests that practical, methodological and ethical issues need to be considered before offering incentives, especially payment to research participants.



6.1 Evidence Essentials Six

A good grasp of how the data has been generated (either by yourself or others) will allow you to think critically about how it can be used within an evidence base. Adopting a mixed methods approach will allow for the strengths of one method to compensate for any limitations in another.



6.2 Case Study: Collecting data

To apply your learning, review the case study below and answer the questions to help you consider a 'real life' example associated to the content of this section.

Jules - Digital Services Manager at University of Enlightenment

The University of Enlightenment has a very good relationship with the local Students' Association and has been approached by a Students' Association Officer to address why the University has not yet introduced lecture capture across the institution.

This matter has been referred to Jules, as Digital Services Manager, who has been tasked with sourcing kit, appraising technical functionality and providing associated costs.

The Students' Association is pushing for a tight deadline for completion of this work as introducing lecture capture is identified as a key objective within their current local manifesto.

Jules contacts various suppliers, checks with the technical team, arranges some demonstrations and trials with the Digital Services Team and finally arrives at an options appraisal with key recommendations and an implementation plan appended. This is viewed by the Team as a thorough piece of work.

The report is sent to the PVC for Student Experience, Director of Learning and Teaching and CEO of the Students' Association as a precursor piece of evidence to inform their implementation meeting.

Jules receives an email communication from the PVC and Director of Learning and Teaching expressing dissatisfaction with the quality of the report and comments are made such as 'this is completely devoid of any pedagogic principles' and 'academic staff will not buy into this process as it is far too transactional'.

As a result, the work around lecture capture is further delayed and Jules also receives frustrated messages from the Students' Association CEO, who assumed that Enlightenment would go ahead with roll-out of lecture capture within the next teaching period. A sense of disillusionment prevails within the Digital Services Team.





Case Study Critique: Existing Evidence

Consider the following questions and then see if you can reconstruct this case to have some improved outcomes for Jules. There is an alternative, refashioned version in Appendix A which provides one approach to producing an evidence informed enhancement of this situation. Before accessing this alternative, see if you can do any better.

- What are your immediate thoughts about the case study situation? Why do Jules and the Digital Services Team end up feeling disillusioned?
- Can you identify further steps Jules could have taken to prepare this report more effectively?
- What should Jules now prioritise?
- How can Jules learn from this experience so that it does not get repeated at Enlightenment?

Notes



References and Further Reading

Atkinson, R and Flint, J (2001) Accessing Hidden and Hard-to-Reach Populations: Snowball Research Strategies, Social Research Update 33
<http://sru.soc.surrey.ac.uk/SRU33.html>

Banks, M (1995) Visual research methods, Social Research Update 11
<http://sru.soc.surrey.ac.uk/SRU11/SRU11.html>

Barter, C and Renold, E (1999) The Use of Vignettes in Qualitative Research, Social Research Update 25
<http://sru.soc.surrey.ac.uk/SRU25.html>

Whitney, D, & Cooperrider, D L (2000). The appreciative inquiry summit: An emerging methodology for whole system positive change. *OD PRACTITIONER*, 32(1), 13-26

Gorad, S (1999) Examining the paradox of achievement gaps, Social Research Update 26, available at <http://sru.soc.surrey.ac.uk/SRU26.html>

Kinney, P (2017) Walking Interviews, Social Research Update 67
<http://sru.soc.surrey.ac.uk/SRU67.pdf>

HM Treasury (2011) Magenta Book
<https://www.gov.uk/government/publications/the-magenta-book>

Salway, S, Allmark, P, Barley, R, Higginbottom, G, Gerrish, K and Ellison, G (2009) Researching ethnic inequalities, Social Research Update 58
<http://sru.soc.surrey.ac.uk/SRU58.pdf>

Scottish Government (2016) Race equality framework for Scotland 2016 to 2030, Edinburgh: The Scottish Government.

ScotCen Social Research that works for society website
www.scotcen.org.uk

Social Research Association (SRA) website
<http://the-sra.org.uk>

STEER (Student Engagement, Evaluation and Research) (2019) Digital Storytelling @ SHU
https://blogs.shu.ac.uk/steer/digital-storytelling-shu/?doing_wp_cron=1538925861.0197610855102539062500

TSEP (The Student Engagement Partnership) (2018) BME Students in Higher Education
<http://tsep.org.uk/wp-content/uploads/2018/04/BME-Students-in-Higher-Education.pdf>

UUK and NUS (2019) Black, Asian and Minority Ethnic Student Attainment at UK Universities: #ClosingTheGap
www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/bame-student-attainment-uk-universities-closing-the-gap.pdf

Victor, L (2008) Systematic Reviewing, Social Research Update 54
<http://sru.soc.surrey.ac.uk/SRU54.pdf>

Digital glossary for this section

[Analysis](#)

[Anonymity](#)

[Data](#)

[Method](#)

[Pilot](#)

[Questions](#)

[Research](#)

[Response Rate](#)

[Survey Fatigue](#)

[Synthesis](#)

[Randomised
Control Trial](#)

SECTION 7: EVIDENCE OF EVIDENCE USE: HOW DO YOU SHOW THAT YOU HAVE USED EVIDENCE IN YOUR DECISION-MAKING?

By the end of this section you will be able to:



Understand the importance of creating audit trails which demonstrate evidence-informed decision making in higher education.



Extend your learning, complete the Critical Checklist for Using Evidence Effectively activity at the end of this section, in relation to a planned intervention or activity.



Apply your learning, review the case study to help you consider a 'real life' example associated to the content of this section.

Analysis and synthesis

Think about how you know you are being sufficiently analytical.

One of the biggest problems when using any kind of **evidence** is moving from description to analysis to synthesis. Use the following exercise about levels of critique to sharpen your skills when analysing evidence.

Worked example:

Situation	Level of analysis
The cat sits on the mat	Purely descriptive - <i>states what can be seen</i>
The cat sits on the mat: we need to explore why it's sitting there	Description plus limited critical analysis - <i>what can be seen plus we begin to reason and question</i>
The cat sits on the mat: having weighed up all available evidence, we can demonstrate an understanding of why it might be there	Extension of critical analysis into synthesis - <i>what can be seen plus comprehensive reasoning of all available evidence</i>
The cat sits on the mat: we perceive that the existing evidence does not explain adequately why it's there. We need to devise further ways to help explain the significance of this situation	Synthesis moves towards more comprehensive critical evaluation; represents recognition of the limits of existing knowledge upon which to build new explanation(s) - <i>what can be seen plus an evidence-informed approach acknowledging we need to examine gaps and maybe gather new evidence?</i>

Task: identify ONE piece of evidence arising from a situation of your choosing and see if you can progress it in a similar way to the 'cat' above. Place the situations (or facts) in the left-hand columns in the diagram below and align with the corresponding levels of analysis in the right-hand columns. This can be very useful to complete when considering how to become more analytical.

Situation	Level of analysis
	Purely descriptive
	Description plus limited critical analysis
	Extension of critical analysis into synthesis
	Synthesis moves towards more comprehensive critical evaluation; represents recognition of the limits of existing knowledge upon which to build new explanation(s)

Reporting and dissemination

It is really important to be systematic and thoughtful about how evidence and findings are reported. Considering who you are trying to influence, and why, is crucial at the outset. A well thought out communications plan can provide a useful way to keep on track with when and how to report evidence and it also ensures that it will maximise influence. Ask yourself some critical questions about what you are going to do with evidence you find:

1. Have you got a communications and information-sharing (dissemination) plan before you start any form of inquiry?
2. How and when are you going to produce outputs? For example, will you be writing any interim findings, summaries, extended report?
3. Internal dissemination by project team? Such as University committees, internal conferences, internal media communications
4. How to launch findings? For example, you could do a 'soft launch' at the end of the project at the host institution, if appropriate. If any of the work is sponsored, your funder might want a 'harder' official launch before anything else occurs
5. Publication of output? Where will anything be hosted as there are lots of options here, including:
 - a relevant website
 - external and internal project members to promote via own networks
 - newsletters, blogs, email promotion and face-to face-meetings
 - social media sites such as Twitter, Instagram, Facebook
 - promotion to practitioners via any established organisational networks
 - promotion to senior leaders either directly or via their identified network
 - conference presentations by project team or individuals
 - open access to raw data to allow continued analysis of the topic area by other researchers or those gathering further evidence.
6. Check for any embargos or any other restrictions on publication and/or data sharing?

Action plans and activity logs

Action plans and activity logs can provide detailed outlines of tasks required to accomplish a goal and should be considered as useful evidence of process. There are lots of freely available planning templates that can be downloaded but the easiest way is to create your own based on the following SMART principles:

Be **S**pecific

Use **M**easurable processes

Set **A**ttainable targets

Have **R**elevant goals

Ensure **T**imescales are taken into account

Scenario modelling (forward thinking)

Scenario modelling (also known as scenario planning) is an evidence-informed process used to improve decision making when creating possible future directions. During the process, current driving forces and potential drivers of change are explored in depth and evidence is gathered to examine the strengths and challenges of each possible future.

Sayers (2010) constructed *A Guide to Scenario Planning in Higher Education* which provides lots of worked examples of how evidence can be used to construct forward-facing alternatives. She states:

'Scenario planning does not claim to predict the future in entirety, it does increase awareness of the external environment and broaden the range of possible futures which are under consideration (and what policies and strategies would be best in each case.)

In straightforward terms, it helps organisations to 'prepare for what we don't think is going to happen' (p 5).

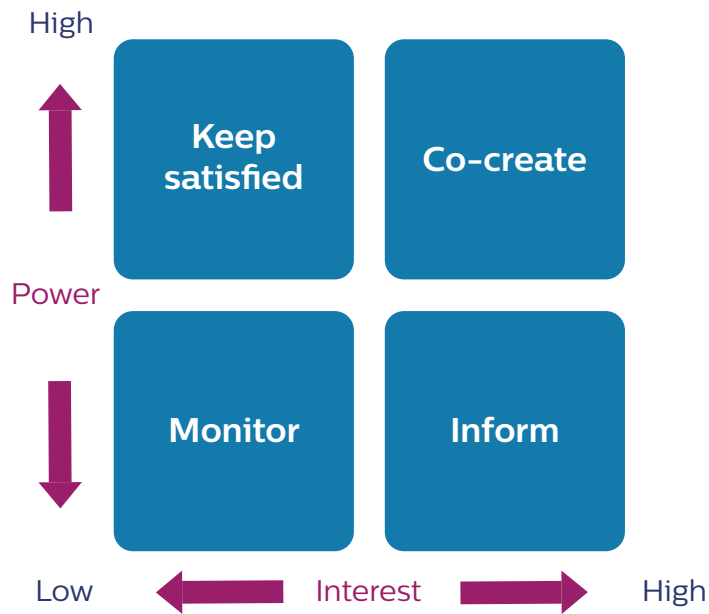
You might consider using and documenting scenario-modelling processes, as outlined above. They can provide a low-risk approach in helping to develop some evidence-informed alternative versions of possible futures within specific contexts. These can be revisited as very useful forms of contributory evidence when making decisions at a later point.



Stakeholder engagement

Stakeholders are individuals (or groups) who affect, or are affected by, a project or strategy. There are many ways to identify stakeholders you might want to include when using evidence to inform organisational change. Using a template to consider level of influence within any specific context, along with level of interest, can identify the right people to help in any evidence-informed process or initiative.

The following stakeholder analysis template can be used when planning any evidence-informed process:



This results in four obvious combinations:

- Stakeholders identified with *low power* and *low interest* should be *monitored*
- Stakeholders identified with *high interest* but *low power* should be *kept informed*
- Stakeholders identified with *high power* but *low interest* should be *kept satisfied*
- Stakeholders identified with *high power* and *high interest* should *become co-creators*.

‘Power’ in this context doesn’t necessarily relate to organisational hierarchy, it concerns those you consider have power in the particular area of change. For example, if you were collecting some form of student voice evidence around assessment then the President of the Students’ Association and the Director of Learning and Teaching might have more power than the Principal in this context.

Focused and differentiated recommendations

- When considering and/or auditing use of evidence, don’t forget to give some thought to how you feel the evidence should be used for change in a focused manner. A good way of doing this is to consider who you think might find the evidence of most use and how? Accessibility is often considered when planning how to disseminate findings, so things like executive summaries are used frequently to incorporate headline messages alongside consideration of methods of communication.
- Do also remember to provide focus alongside accessibility. For example, if you have some differentiated recommendations for practitioners, policymakers and students, then you can always draw attention to those audiences in any specific summary.

To summarise

- Do ensure that you consider how to audit your use of evidence throughout
- Don't assume that complex information is always easy to analyse
- Do produce a stakeholder plan so that you can be rigorous about engagement
- Do think about planning the focus of any dissemination of findings

The Critical Checklist for Using Evidence Effectively at the very end of this section will help you to cover all the obvious things concerning questions to ask yourself about using evidence, types of evidence, thinking critically, existing data and collecting data. If needed, revisit each section throughout this Guide and access the activities and case studies to ensure that you can answer the checklist questions confidently and competently.



7.1 Evidence Essentials Seven

It is important to know why you need to plan and audit how evidence is used to inform decision making (either by yourself or others). Doing so will allow you to justify your reasoning and any changes in direction. It also assists in the capture of unintended outcomes.



7.2

Case Study: Evidence of evidence use

To apply your learning, review the case study below and answer the questions to help you consider a 'real life' example associated to the content of this section.

Val - Programme Leader, Nudge University

As Programme Leader at Nudge, Val has developed a really good relationship with students at all levels and is known for being committed to authentic student engagement.

Recently, Val undertook a snapshot audit of how students are engaging on the current Programme and noticed that many of the students, who are part-time and mature learners, have not been using the University's designated virtual learning environment (VLE). Indeed, the tracking tool on the VLE demonstrated really poor uptake across all modules, at all levels, beyond using the system to submit work electronically.

Given this shock, Val called together members of the Programme Team who were equally perplexed. Collectively, they assessed whether the pedagogy underpinning engagement was of a sufficient standard across the modules. There was uniform agreement that opportunities to engage were of high quality.

The Team therefore deduced that there must be a skills deficit, given the nature of the student demographic.

Val and the Programme Team met with the Technology Enhanced Learning Unit (TELU) and together they fashioned a set of scaffolded skills-based optional activities to address this shortfall in active VLE engagement.

Sessions were scheduled over lunchtimes and also created online to maximise flexibility. Disappointingly, the face-to-face sessions were cancelled due to lack of interest and the online versions received minimal attention.

In light of this process, Val and the Team met up to consider this ongoing lack of engagement and to identify next steps. At the end of this meeting, they were still grappling with attributing reasons for both lack of VLE take up and what they perceived to be indifference from the students about the skills sessions.





Case Study Critique: Existing Evidence

Consider the following questions and then see if you can reconstruct this case to have some improved outcomes for Val. There is an alternative, refashioned version in Appendix A which provides one approach to producing an evidence informed enhancement of this situation. Before accessing this alternative, see if you can do any better.

- What are your immediate thoughts about the case study situation? Why do you think Val and the Programme Team end up feeling uncertain about what to do next?
- Are the assumptions made, about explaining lack of VLE engagement, valid considering the existing evidence?
- What further evidence, if any, should Val and the Team consider?
- How can Val learn from this experience so that the student experience isn't adversely affected in the longer term?



References and Further Reading

Bell, J and Waters, S (2018) Doing your research project: a guide for first-time researchers, London: Open University Press and McGraw Hill Education

Lock, D (2013) Project Management, Farnham: Gower Publishing Limited

Sayers, N (2010) A Guide to Scenario Planning in Higher Education, London: Leadership Foundation for Higher Education

Digital glossary for this section

[Data](#)

[Evidence](#)

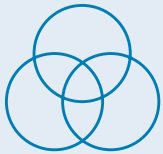
A CRITICAL CHECKLIST FOR USING EVIDENCE EFFECTIVELY

USING EVIDENCE



1. Have you considered why gathering evidence is useful?
2. Does the proposed approach to gathering evidence help you?
3. Why is it often important to gather more than one source of evidence?
4. Have you considered how you will evaluate the evidence you found?
5. What impact do you hope the evidence might have?

TYPES OF EVIDENCE



1. Which kind of evidence is most important to fulfil what you need to do?
2. Do you need to collect primary or secondary data, or both?
3. Is there a type of evidence that is valued most within your organisation?
4. What will you do if you can't find any useful evidence?
5. Are forms of evidence always clear cut?

THINKING CRITICALLY



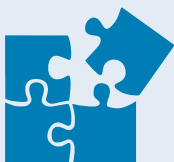
1. How do you know that you have critiqued or gathered the best available evidence?
2. Does the evidence presented have organisational or contextual significance?
3. What assumptions underpinned your research questions or inquiry?
4. How do you know that your assumptions were correct?
5. How will any learning from the evidence be put into practice?

EXISTING DATA



1. Why was this data collected in the first place?
2. Have you looked at the data quite critically rather than accepted it as a 'truth'?
3. Is there a shelf life for data and, if so, for how long?
4. Does data need to be accessible and when might restrictions be needed?
5. What are the limitations within single sources of data?

COLLECTING DATA



1. Do you need to collect data in order to answer a question?
2. Why is the process underpinning how data is collected so important?
3. Have you considered ethical issues fully before collecting any data?
4. Have you considered any impact on participants in addition to findings?
5. Have you considered how any unintended consequences will be reported?

SECTION 8: EVIDENCE AND IMPACT

By the end of this section you will be able to:



Identify the major constituents for effective use of evidence.



Extend your learning, explore some of the links and checklists provided.



Apply your learning throughout this Guide, review the successful case study to help you consider a 'real life' example associated to the content of this section and others.

Has your use of evidence had an impact?

This section pulls together all previous sections and ideally should be accessed when all other associated content has been completed. In contrast to other sections, this one starts with a case study in which things go really well. See if you can identify important points in the process and the actions that might have led to success.

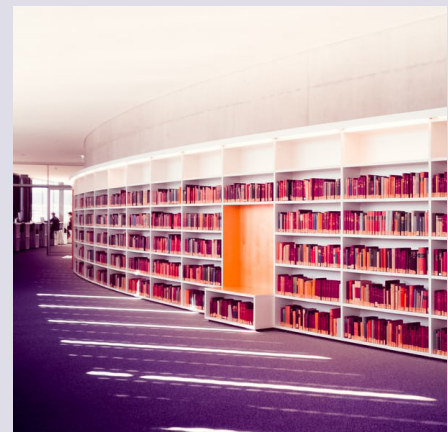


8.1 Case Study for success

Glenn - Associate Dean for Student Experience at Exquisite Evidence University

Exquisite Evidence University (EEU) is committed to 'producing tomorrow's students today'. This sentiment forms a central part of the EEU 10 Year Strategy. Glenn was seconded to the VC's Office to bring this strategy to life as an evidence-informed, owned process, which comprised:

Looking at critical success factors in the sector across all areas of University life, in order to scope wider aim(s) and objectives. This process identified exploring several domains: Our Students, Our Staff, Our Courses, Success Criteria for Our Students, Learning and Teaching, Research, Our Organisation. Glenn had already considered *Section 2: using evidence in Higher Education* within the [Guide to using evidence](#) and shared these starting points with key stakeholders within and beyond the University and Students' Association and established an oversight group made up of a diverse array of such stakeholders.



Glenn then worked with key strategic allies to create an evaluative methodology (see Parsons, 2017) based on ‘What Works’ principles in each of the seven domains listed above. Glenn had already published widely on this process and already had a recognised track record of quality outputs which instilled confidence. The What Works approach drew upon [an integrative review research process](#) which synthesised thought-leading evidence of good practice alongside local application to context. This integration formed the emerging evidence-base for strategic action at EEU. Glenn also sense-checked this process with the EEU Executive Group for strategic approval. Glenn had noted the need for using different *types of evidence* (see Section 3 of the [Guide to using evidence](#)).

To engage wider stakeholders and to encourage ownership, a series of open access workshops were held, in which sector-leading peer-assessed evidence was synthesised and, using an Appreciate Inquiry stance (which is noted for its effectiveness in helping achieve organisational change) participants were asked to envision whether this evidence of excellent practice could be used to fully realise the ‘local’ dreams of EEU. Glenn also drew upon the HE Data Landscape Resource to consider the evidence around different learning and engagement styles and designed a range of approaches in the workshops to maximise on effective participation.

In addition, Glenn employed a critical thinking cycle within the sessions (see *Section 4: thinking critically about evidence in Higher Education* of the [Guide to using evidence](#)), which enabled participants to a) assess the original evidence-base b) consider underpinning assumptions and challenge where necessary c) consider this triangulation of evidence in light of the accepted knowledge and wisdoms of EEU d) think about whether more evidence needed to be sought or considered e) develop a shared praxis perspective in which turning evidence into action is addressed.

Evidence emerging from these sessions was shared using a range of communication tools to maximise ongoing dialogue. To ensure effective coverage, Glenn had sought advice from both EEU and Students’ Association communication specialists. The focus upon What Works and how will this be captured longitudinally really energised participants and consequently a set of tangible outcomes and impact measures were identified as part of an evolving blueprint for action and continuous evaluation (see *Section 7: Evidence of evidence use* of the [Guide to using evidence](#)).

Glenn is now testing the underpinning evidence and assumptions with deliberately diverse target populations - especially those with less ‘voice’ - to see if it works for all EEU stakeholders (see Hartlep et al, 2017). The next steps in the process have already been identified across stakeholder groups and these have also been agreed by the oversight group. Key steps include:

- Developing a realistic and proportionate implementation process.
- Agreeing which of the seven domains should be given priority.
- Testing each of the seven domains with diverse populations and establishing communities of practice so that the work will be owned and progressed across the University.
- Offering career progression opportunities for staff and students who wish to lead specific strands of strategic enquiry.

Glenn is now mentoring several Principal Lecturers so that further capacity-building and succession planning is in place, given the longevity of the process. The wider University sector has been very interested in hearing about how the EEU process of integrative review has been used to inform strategy in a more inclusive manner. Accordingly, Glenn and the CEO of the Students’ Association are now acting in an advisory capacity with various regulatory bodies to create good practice guidance for robust evidence-informed strategy development.



Case Study Critique: Success

Consider the following questions to see if you can identify what things went well and why. It might be useful to cross reference with other elements of this Guide to help you work it out.

- Why is this case study 'successful'? What are your definitions for success concerning evidence (whether generated, critiqued or both)?
- What leadership skills has Glenn displayed?
- How has Glenn used partnership working effectively in order to influence outcomes and engagement?
- What additional skills, impact and abilities has Glenn used primarily?
- What unintended outcomes were reported in the case study?
- Are there any areas for improvement that you can identify?

Notes

Now you have had a go at addressing these questions, see if your responses align with the factors below.



Defining success

In purist terms, success might be viewed as whether initial aims and objectives of any [evidence-based](#) or [evidence-informed](#) initiative have been met. However, as noted in Section 4, initial assumptions underpinning aims and objectives should be revisited throughout as the original thinking can be inappropriate or misguided. A good way of ensuring that you gain a successful process and outcomes is to make sure that you use evidence to inform and challenge all stages of planning and review. Revisiting the ‘What Critical Questions Should You Ask of Evidence?’ checklist will help you to develop a clear but realistic view of what is achievable.

Leadership skills

This is probably the most consistently crucial factor for success. It is now widely recognised that the transformational leader model advocated many years ago by Burns (1978) is still really effective for achieving positive change. Such leaders or indeed leadership teams are characterised by:

- having a clear vision of what needs to change
- being able to enthuse and stimulate others
- encouraging meaningful participation
- developing excellent communication skills
- demonstrating loyalty and commitment to both tasks and to others
- having a sense of the bigger picture
- working with strong personal Integrity
- being able to inspire others.

In the case study, Glenn managed to display all these characteristics whilst working within stakeholder teams rather than as an individual. It might also be useful to revisit the ‘Existing Data Sources Case Study’ in which Madison needed to develop informal micro-leadership skills, as advocated by Lumby (2015) to recognise the impact of the everyday interaction in enhancing personal impact.

Partnership working and developing effective relationships

Within any complex organisation, there will be subtle cultural differences with how things are done, alongside the range of opinions that such diversity generates. In this case, Glenn used partnership working very effectively to: draw on expertise across the organisation to support the ‘what works’ approach; develop a sense of identity for the initiative and to cultivate ownership by bringing together a well-considered Stakeholder Group; use situated power of themselves and others to influence and drive change at the right levels; ensure that the maximum amount of resourcing and capacity-building were in place to enable every chance for success; enlist others who can implement change; help to maximise reach of findings and dissemination and push through recommendations. You may recall that one of the problems for Module Leaders Reese and Harper, their students and the Programme Leader within the Using Evidence in Higher Education Case Study concerned the lack of an effective relationship to discuss emerging evidence before it became problematic.

Personal skills, impact and abilities

In working collaboratively, Glenn clearly developed some skills and abilities that link to those expected of an effective leader.

Skills developed include: design and planning skills for using evidence effectively; insight into how to incorporate effective **evaluation** into the process at the outset; a range of leadership, influencing and communications skills; applying positive and inclusive change-management principles.

To capture personal development in more detail, Glenn could assess impact against the following checklist: 10 types of evidence to show impact and supporting data produced below by the Leadership Foundation for Higher Education (2017)

1. Evidence of difference	<p>Data to show your research has made a difference to beneficiaries or society such as:</p> <ul style="list-style-type: none"> ▪ Difference for beneficiaries, effects or outcomes ▪ Economic difference, cost savings, profit or gain ▪ Direct change in policy or policymaking ▪ Difference brought about in practice or the awareness, understanding or behaviour of practitioners ▪ Researcher or stakeholder knowledge and skills or research capacity ▪ Evidence of other types of impact
2. Evidence of scale	<p>Data to show your impact is on a significant or sizeable scale, for example:</p> <ul style="list-style-type: none"> ▪ A large number and/or range of beneficiaries ▪ Targeted highly significant impact that may be small in scale or have a precise impact on an important issue ▪ Data to show people benefit in a way that is important to them ▪ Defendable projections of future scale, eg based on new or emerging markets ▪ Data about regional, national or international reach ▪ Scale of interest in the research from stakeholders, research users or beneficiaries ▪ Large-scale altmetric data or impact tracking
3. Evidence of attribution	<p>Data that helps to elaborate the often intricate or multipart links between the research and the impact, for example:</p> <ul style="list-style-type: none"> ▪ Explaining collaborations and team contributions ▪ Documented accounts of interactions with research users ▪ Data about how knowledge exchange has occurred ▪ Evidence from research users about how they have applied or used the research
4. Evidence of quality	<p>Data to show that you have achieved impact through high quality research, such as:</p> <ul style="list-style-type: none"> ▪ Independent reviews of research quality ▪ Audit trail to show research questions are well considered, for example, you used a robust decision-making process to reach your hypothesis ▪ Data to show a robust research design eg tests or scores ▪ Data about institutional support structures

5. Evidence of partnership	<p>Data to show how partnerships contributed to impact, for example:</p> <ul style="list-style-type: none"> ▪ Data about collaborative research partnerships eg number of partners, contact hours or episodes of interaction ▪ Illustrative data about the nature of the collaborative research partnership ▪ Data about partnership with industry, public sector organisations or charities eg initiation, duration and growth of partnerships ▪ Data about the international reach of the partnerships, international member organisations or contributors
6. Evidence of engagement	<p>Data to show that engagement of stakeholders, research users or the public is integral to the research, for example:</p> <ul style="list-style-type: none"> ▪ Accounts of engagement events with professionals or practice communities ▪ Data to show knowledge exchange or knowledge transfer partnerships ▪ Data log of stakeholder engagement ▪ Data about research user testing or comments on the research design ▪ Data about the contributions of members of the public involved in the research
7. Evidence of experience	<p>Data to show that the individuals involved have a strong personal track record in their area of research, for example:</p> <ul style="list-style-type: none"> ▪ Grants and other research income recognised expertise ▪ Data about researcher impact skills, knowledge and competencies e. g. communication or implementation skills ▪ Data to show a track record of projects and funding ▪ Data on publications and dissemination work
8. Corroborative evidence	<p>Data from users of your research or beneficiaries to corroborate the impact you have had, for example:</p> <ul style="list-style-type: none"> ▪ Data from independent evaluation or self-evaluations of impact ▪ Data about the impact of participation or involvement on research users ▪ Reflexive accounts, eg a research impact diary or log ▪ Research user's own accounts of the impact of the research on them
9. Evidence of accessibility	<p>Data to show that you have made information about your research accessible, for example:</p> <ul style="list-style-type: none"> ▪ Publication figures and citation of the research by other researchers ▪ Data about knowledge brokers, knowledge transfer partnerships or secondments ▪ Data to show that the research has been disseminated to research users and has been taken up by them locally, nationally or internationally ▪ Numbers of attendees at public events or distribution of lay summaries ▪ Numbers of visitors to open access databases or data deposits to open access repositories ▪ Access figures for videos, infographics or visual material ▪ Viewer figures for television, radio, the press, or social media
10. Evidence of recognition	<p>Data to show that researchers and other audiences recognise and value your research, for example:</p> <ul style="list-style-type: none"> ▪ Extracts from independent reviews ▪ Quotes from feedback ▪ Formal awards or recognition of the importance of the research



8.2 Evidence Essentials Eight

Understanding what works and capturing success is crucial. You will need to identify appropriate leadership skills required of a team or individuals, develop effective partnership working, learn how to influence via advocates supporting you within complex organisations and develop capacity-building so that evidence can be used sustainably for future students. Developing robust impact processes will assist your own effectiveness alongside making the most of evidence-informed policy and practice.



References and Further Reading

Austen, L and Jones-Devitt, S (2019) Guide to using evidence, QAA Scotland
www.enhancementthemes.ac.uk/current-enhancement-theme/student-engagement-and-demographics/students-using-evidence

Burns, J M (1978) Leadership, New York: Harper and Row.

Hartlep, N D, Hensley, B O, Wells, K E, Jameson Brewer, T, Ball, D and McLaren, P (2017) Homophily in higher education: Historicizing the AERA member-to-fellow pipeline using theories of social reproduction and social networks, Policy Futures in Education, 0(0): 1–25

Jones-Devitt, S, Austen, L and Parkin, H J (2017) Integrative Reviewing: for exploring complex phenomena Social Research Update 66 (Spring 2017)
<http://sru.soc.surrey.ac.uk/SRU66.pdf>

Lumby, J (2015) In the wings and backstage: exploring the micropolitics of leadership in higher education, London: Leadership Foundation for Higher Education.

Office for Students (OfS) (2019) Standards of evidence and evaluating impact of outreach <https://www.officeforstudents.org.uk/publications/standards-of-evidence-and-evaluating-impact-of-outreach/>

Parsons, D (2017) Demystifying evaluation: practical approaches for researchers and users, Bristol: Policy Press

QAA Scotland (2019) Focus on Graduate Skills 2018–19
www.qaa.ac.uk/scotland/focus-on/graduate-skills

Digital glossary for this section

[Data](#)

[Evaluation](#)

[Evidence](#)

[Research](#)

Collating evidence is not always a logical or linear process. Data sources may not neatly corroborate and may even contrast each other. To make sense of your data landscape, spend some time reflecting on the process and the outcome. Evidence can include notes of unintended outcomes of the research/ evaluation and personal reflections of the researcher/s. Once a conclusion has been reached, it is also important to state any limitations in the evidence base.

Critical thinking will develop alongside your confidence at navigating the data landscape. You will be required to make some tough decisions about what you can realistically achieve. You will need to scrutinise processes and defend your judgements. You will need to assess best practice and modify for your own context. Be open and honest in sharing what has worked and what hasn't. This will help those colleagues who begin this journey after you.

A good grasp of how data has been generated (either by yourself or others) will allow you to think critically about how it can be used within an evidence base. Adopting a mixed methods approach will also allow for the strengths of one method to compensate for any limitations in another.

It is important not to assume that evidence gathered in one context using a specific methodology, will apply directly to another. Try to move from evidenced-based decisions to evidence-informed decisions to account for your own environment and limits of proportionality (Parsons, 2017). Proportionality realistically balances best practice against any limitations in time.



Evidence Essentials: A Summary

It is important to know why you need to plan and audit how evidence is used to inform decision-making (either by yourself or others). Doing so will allow you to justify your reasoning and any changes in direction. It also assists in the capture of unintended outcomes.

It is important to assess the appropriateness of each data source and challenge yourself to be innovative where possible. This is how evidence becomes inclusive of all voices and less likely to keep some voices hidden and silent. It is essential that you triangulate data sources where possible so that limitations of one can be addressed by strengths of another. Consider different types of triangulation which can strengthen your evidence base: data; methods; theory; researchers.

There is a vast amount of data available which could help explore almost any area of higher education. Sometimes this data landscape can be overwhelming. Start any project with a set of clear aims and objectives and a question that you want to answer. Ask yourself 'What do I want to find out about this chosen area'? Then ask critical questions of your proposed data sources.

Understanding what works and capturing success is crucial. You will need to identify appropriate leadership skills required of a team or individuals, develop effective partnership working, learn how to influence via advocates supporting you within complex organisations and develop capacity-building so that evidence can be used sustainably for future stakeholders. Developing robust impact processes will assist your own effectiveness alongside making the most of evidence-informed policy and practice.

APPENDIX A: CASE STUDIES REVISITED

In this section, you will find more positive responses to the case studies presented in earlier sections. Read through these carefully and compare and contrast with your own responses. Remember there are no totally right answers; only ideas for enhancement that will be heavily contextualised when applied in practice.



Case Study Critique: Using Evidence in Higher Education

Reese and Harper - Module Leaders at Algorithm University

See Section 2

Reese and Harper deliver two L5 modules on a programme at Algorithm. They are relatively new academic appointments and have noticed that students have commented that the assessment process for both modules are very similar. Several students have remarked that they are bored at having to do the same type of assessment in close proximity.

- To address these concerns, the two staff members get together with the Programme Team to discuss the students' perspectives concerning whether these are sufficiently differentiated assessments.

They discuss their ideas collectively and consider module reviews and module evaluations from the last two years across both modules, in which the assessments – minus a couple of semantic tweaks – have taken place. They find that there is nothing within the documentation suggesting boredom from previous module cohorts.

- Consequently, Reese and Harper, along with the Programme Leader, arrange to see the Student Reps informally to discuss their perspectives, especially in light of the evidence that things appear to have been fine within the last two iterations of these modules.

At the meeting, the Reps inform the staff that they have conducted a thorough discussion with other students on both modules, and it is clearly a minority view that the module assessments are too similar. They don't feel any action is needed but do say that they are pleased to be invited to discuss at this stage. They suggest it might be the way the language of assessment is used, rather than the content, that gives the appearance of similarity.

- The staff team accepts this feedback and the Programme Leader suggests revisiting the [QAA Code concerning effective assessment](#) which contains guidance and linked resources to ensure that the assessment descriptors are fit for purpose on these modules.

All leave the meeting quite satisfied that their respective views have been given thoughtful critique and that some useful evidence-informed decision-making and insights have been applied that can shape further development if needed.

- Outside of the meeting the Programme Leader draws the attention of Reese and Harper to *Use and Abuse of the Student Voice: Leaders' responsibilities for making positive use of student evaluations of teaching in higher education* (Jones-Devitt and LeBihan, 2018). This investigated the experience of academic staff as the subjects of student evaluations and the challenges this presents for academic leaders.

- Reese and Harper also explore funding for a larger evaluation of the assessment processes. This aligns with elements in the Guide to using evidence which introduced evaluation in Section 2 as structured, planned, objective and goal focused. It gathers and analyses evidence to help make decisions about things. These decisions may be about interventions, activities and initiatives and provide recommendations for action.

This process gave Reese and Harper some new insights into meaningful ways to treat single-source anecdotal evidence in gauging student satisfaction.



Case Study Critique: Using Evidence in Higher Education

Blair - Head of Department, at the University of Enlightenment

See Section 3

Within the University of Enlightenment, all Departments undergo a Quarterly Business Evaluation (QBE) of their performance. This is undertaken by a QBE panel, comprising members of the Senior Leadership Team of the University.

In preparation for QBE, Blair met with the Planning and Intelligence (P and I) team to discuss the Department's metrics. The P and I team highlighted a specific downturn in student retention in one area of the portfolio.

Blair knew there was a further explanatory narrative in the area concerned, as several factors had culminated in a perfect storm of events occurring, including staff illness, new curriculum, amended tariff entry structure; all of which possibly influenced the retention rates in this area.

- To get the P and I team to assist in the evidencing of Blair's suppositions, they did a follow-up planning session and Blair sourced a webinar to watch entitled *Data Delving: Engaging Staff in Student Experience Data* (QAA Scotland, 2018/9 - Optimising Existing Evidence: Webinar Series).

This stressed the need for all evidence-informed institutional processes to be:

- Open, accessible and intuitive
- Positive, supportive and empowering
- Collaborative, developmental and formative

As a consequence, the P and I team examined trends in and around longer term staff illness and impact within and external to the Department. The team also undertook a brief comparative analysis of a couple of subject areas that had amended the tariff entry points in a similar manner. Blair also secured a commitment to exploring qualitative measures for the impact of the new curriculum (eg those students who had experienced both during their studies).

- The process was so revelatory that the Head of P and I arranged further training for the team. This employed principles underpinning [Data Fallacies](#) work which demonstrated how evidence could be compiled in a more nuanced way, especially in future QBEs.

In Blair's case, this meant that, rather than being pessimistic, the Department could be cautiously confident about its future trajectory. It also implied that the retention downturn was wholly unavoidable due to wider strategic factors beyond the Department's control.

At the QBE, the range of presented evidence was well received, and Blair believed that this helped to construct a Departmental plan which was sensible and achievable. The P and I team was commended too for its efforts in providing a more considered explanatory narrative which aided strategic decision-making.

It also demonstrated the power of forward planning, using interesting reusable objects (in this case, the Webinar) as effective learning tools, and considering institutional data in a more sophisticated, triangulated manner for the benefit of all.



Case Study Critique: Using Evidence in Higher Education

Ali - PVC Partnerships at Nudge University

See Section 4

Ali is the newly-appointed PVC at Nudge and is taking a proposal for a significant strategic partnership to Academic Board, after which it should progress to Court for final approval. The proposal has already navigated the Partnerships Committee successfully - which occurred before Ali started working at Nudge - however, Ali has noticed that there has been scant scoping research undertaken, including examination of ethical issues, in addition to obvious commercial benefits undertaken within the due diligence process, and feels this is worthy of more scrutiny before the proposal goes to Academic Board.

- To address this, Ali accesses the updated [BERA Ethical Guidelines for Educational Research](#) guidance for additional scrutiny.

On perusal of the section 'Responsibilities to sponsors, clients and stakeholders in research,' Ali uncovers a myriad of potential problems. Ali notices that the CEO of the partner organisation has wider business interests that could be directly oppositional to business interests of the Chair of Court. In addition, an email is received from a member of academic staff at Nudge (who is an ex-employee of the proposed partner organisation) which implies that the partner organisation's Senior Team 'are a nightmare to work with'. Considering this emerging evidence, Ali convenes an urgent meeting with the Nudge VC to discuss

- In preparation, Ali revisits some of the immediate assumptions and draws on work analysing so-called '[wicked problems](#)' in universities.

These are types of issue that have no obviously linear solution and when attempting to solve (or 'tame' as commonly termed) highlight further complexities. The wicked problems literature (see Rittel and Webber, 1973) indicates that a fundamental task of any potential problem-solving is to consider whether a problem really is 'wicked' per se.

Ali now reconsiders the assumptions underpinning the problematising of the partnership in light of this framing when discussing with the VC.

It transpires that a) the potential conflict between Chair of Court and CEO of the partner organisation has already been considered informally and both parties are in negotiation of a further highly amicable alliance, coincidental to this proposal b) strict [University governance processes](#) would ameliorate this risk in any event c) although noting the anecdotal evidence from the ex-staff member, Ali discovers that all the 'nightmarish' senior leaders have indeed left the partner organisation.

In further discussion, Ali and the VC agree that the original assumptions have now been dissipated and that the proposal can proceed.

The VC thanks Ali for being thorough as, despite the outcome which confirms that the proposal should go ahead, it is always better to employ cautious scepticism when considering assumptions underpinning initial evidence. Ali takes the proposal forward feeling that it has a more robust evidence-informed basis for progression.



Case Study Critique: Using Evidence in Higher Education

Madison - Business Planning Officer at the University of Datadwelling

See Section 5

Madison has been identified as a key project worker to support data requirements underpinning the University of Datadwelling Business School review of the MA in Human Relations Management.

The School wants to move from a taught on-site delivery mode (which is struggling to recruit) to distance learning (DL) delivery in the space of an academic year. The rationale being that it will be much more financially viable to do so, especially as a corporate DL private provider is being brought in as part of a managed partnership approach. Key operational objectives have already been established. It is now turning its attention to student experience.

Madison is briefed by the Dean and School Business Review Manager and given an outline of the data processes they expect to complete, involving:

1. Examining perceptions of existing students about moving to full DL delivery.
2. Doing a comparative analysis with one other University, which they feel can be facilitated easily due to the Dean's previous employment links with the HEI concerned.
3. Obtaining perceptions of the DL private provider students, to be collated as part of evaluation materials already gathered by the provider.

Madison has already undertaken formal evaluation research training based on ROTUR principles (Parsons, 2017) and feels there are more productive ways to gather evidence to inform the Business School's strategic decision-making more robustly.

At the meeting Madison tactfully suggests:

- Applying for ethical approval to harness student data, including scrutiny of GDPR for data sharing across institutions and private providers.
- Undertaking a five-year literature analysis to determine effective DL infrastructures concerning staff development needs, level of resourcing, virtual learning environment functionality.
- Giving primacy to gathering data concerning views of students who have already experienced full DL delivery within Datadwelling. This would be in addition to gathering perceptions of existing Business School students.
- Gathering data concerning views of staff who have already designed and facilitated full DL delivery. This would be in addition to gathering perceptions of existing staff about moving to DL.
- Doing a trend analysis of a comparator group (based on similarity of cohort) and comparing various factors alongside the existing group, including retention and drop-out rates, attainment levels, student satisfactory ratings, career trajectories. (Using the Dean's previous University may be helpful but only if relatively comparable, rather than convenient.)
- Using the commercial DL provider evaluation materials cautiously, given their operating context.

The Dean and Business Review Manager are initially cautious about this approach as they are under pressure to get on with things quickly. Madison had already rehearsed this as a possible response with the Director of Business Planning and has prepared a compelling rationale.

Madison draws attention to work underpinning the [HE Data Landscape Resource](#) that Business and Planning already use, which can help to reduce mistakes at planning stage and beyond. All agree that poorly-informed decisions will be far more costly in terms of delivery and overall reputation and must be avoided.

- Because Madison has already influenced their own Director, prior to this meeting (see Lumby, 2015) it is agreed that the Business and Planning team can assist with designing and implementing process and impact evaluation once the programme commences delivery.

All parties are very pleased with this way forward and recognise the need for adopting wider [integrated thinking](#) processes. The meeting closes with agreement that Madison will coordinate a thorough evidence-gathering process to inform the work.

Madison is pleased with this result and reflects that rehearsed preparation, evidence-informed planning, and being able to influence leaders effectively has led to a positive outcome.



Case Study Critique: Using Evidence in Higher Education

Jules - Digital Services Manager at University of Enlightenment

See Section 6

The University of Enlightenment has been approached by a Students' Association Officer to address why the University has not yet introduced lecture capture across the institution. The officer has read the [Guide to using evidence](#) and presented their thoughts at Academic Board as part of the influencing process.

Jules, the Digital Services Manager, is expected to pick this up by sourcing kit, appraising technical functionality and providing associated costs.

As lecture capture is identified as a key objective within the Students' Association manifesto, it is pushing for a tight deadline for completion of this work with the University.

Jules does the sourcing thoroughly and would then normally produce an options appraisal with key recommendations and an implementation plan appended.

- However, Jules has accessed the [HE Data Landscape Resource](#), specifically the Student Engagement element and is also representing Enlightenment as part of the [Lecture Capture Enhancement Cluster](#) and understands that there are many issues which mediate the effectiveness of lecture capture and that its usefulness is highly contested.

Jules convenes a meeting with the PVC for Student Experience, Director of Learning and Teaching and CEO of the Students' Association as a precursor piece of stakeholder expectations management prior to going ahead with releasing an options appraisal and implementation plan.

At the meeting, the PVC and Director of Learning and Teaching share that they have heard anecdotally from key contacts in other universities that those which have gone ahead with commissioning lecture capture as a technical 'recording' process have come unstruck on several grounds, but primarily relating to 'lack of any pedagogic principles and purpose' (Dir. Of L and T). The PVC also shares a belief that if not handled correctly with appropriate staff development academic staff will not buy into this process as it is far too transactional.

A discussion ensues in which all parties share a more nuanced approach to debating what they consider to be an ambition to create reusable learning objects, not lecture capture, per se.

- The Director of Learning and Teaching highlights some work by Nordmann and McGeorge (2018) concerning benefits and disbenefits of lecture capture.

As a result, the work around lecture capture is paused whilst Jules finds more evidence about the longer term impact of going ahead with roll-out of lecture capture within the next teaching period..

- This includes the option of not doing lecture capture at all, in order to build in evaluation from the beginning of the activity implementation. (This draws upon guidance from OfS about [effective evaluation frameworks](#).)

The Students' Association CEO, who assumed that Enlightenment would comply fully, does at least now acknowledge that wider critical data needs to be collated before further collective decision-making can be made about the implementation of lecture capture, or otherwise.



Case Study Critique: Using Evidence in Higher Education

Val - Programme Leader at Nudge University

See Section 7

As Programme Leader at Nudge, Val has developed a really good relationship with students at all levels and is known for being committed to authentic student engagement.

Recently, Val undertook a snapshot audit of how students are engaging on the current programme and noticed that many of the students, who are part-time and mature learners, have not been using the University's designated virtual learning environment (VLE). Indeed, the tracking tool on the VLE demonstrated really poor uptake across all modules, at all levels, beyond using the system to submit work electronically.

Val called together members of the Programme Team who were equally perplexed. Collectively, they assessed whether the pedagogy underpinning engagement was of a sufficient standard across the modules. There was uniform agreement that opportunities to engage were of high quality.

Several members of the Team deduced that there must be a skills deficit, given the nature of the student demographic.

- However, one team member noted that they had seen relevant evidence that indicated how unhelpful it was to hold assumptions without exploring different student population requirements, especially those who are part-time and in work. This included a manifesto in which students alluded to the notion that: ‘lack of engagement in the Virtual Learning Environment indicates low interest. Many in-work students are technologically adept but choose to adopt more straightforward means of supporting each other.’
- Moreover, Val had noted the ‘Thinking critically about evidence in higher education’ section of the Guide to using evidence, which gave key pointers for challenging assumptions constructively.

This led to Val and the Programme Team examining more evidence to check out their assumptions and they found that using co-design principles would be pivotal in finding out what works rather than guessing. Discussion with existing students did confirm that they were using other mechanisms to engage that were ‘less clunky’ - it had nothing to do with any skills deficit.

In light of this revelatory process, Val and the Team met up to identify next steps. They all agreed that they needed to consider evidence and its ownership much more carefully.

- They followed key principles for building an evaluative mindset in which stakeholders played pivotal roles.

As a result of asking questions about the assumptions made about existing taken-for-granted evidence, the Team is now confidently fashioning a much more inclusive evaluation process that should yield effective insights for the future rather than operating by guesswork and speculation.

APPENDIX B: DIGITAL GLOSSARY TRANSCRIPTS

Analysis

Analysis is a process of sorting and organising data in a systematic way in order to make sense of it. The nature of the data, not the method, will prescribe the process of analysis.

Quantitative data analysis uses numbers as the unit of analysis. It usually involves the application of statistical reasoning to describe average responses, the spread of the data (dispersion), and patterns and relationships in the data.

For example, the relationship between gender and evaluations of teaching quality explored via evaluation questionnaires.

Qualitative data analysis involves preparing the data via transcription of audio or cataloguing of visual and applying an analytical process - usually coding component parts and collating similar codes into larger themes.

Secondary data analysis involves the analysis of data which already exists (called secondary sources) rather than generated by the researcher.

View this digital entry at: <https://youtu.be/Zqm-vcf9k8M>

Anonymity

Researchers should recognise the entitlement of both institutions and individual participants to privacy. Anonymity refers to the extent to which participants can be individually identified during and after data collection.

Remember to think about the anonymity of groups such as courses, or a whole institution. Guarantees of anonymity can increase likelihood to participate and share honest experiences and opinions.

Surveys can be completed anonymously by not asking for personal details and not tracking to personal records.

There are risks to anonymity when collecting descriptive data (such as job titles) and asking questions which provoke answers which are very specific to a person or group of people.

You cannot guarantee anonymity during an interview or a focus group, but you can anonymise the data - maybe using a pseudonym or fictionalising the participants - and instead discuss confidentiality.

View this digital entry at: <https://youtu.be/06DKA4gCX5Q>

Causality

Causality can be determined by using quantitative analysis. It refers to a causal relationship between two variables where a change in one is caused by the extent of another (cause-effect).

For example, peer mentoring is the cause of the change in the extent of student attainment; the change in student attainment is said to be dependent on peer mentoring.

Experimental methods and some statistical tests are good ways to explore causality. Testing for causality should apply random sampling and controls for other variables which may be influencing the relationship. Without this, conclusions should be limited to either inferences or statistical tests of association and difference - one variable is connected to another but cause and effect cannot be determined (see Correlation).

Remember to check the language used in any reporting of your findings. Qualitative analysis would provide a rich, detailed description of a change, but would not make statistical claims of causality.

View this digital entry at: <https://youtu.be/5XLtSKFN1K8>

Confidentiality

Confidentiality and anonymity are terms which are often used interchangeably. They are not the same, but they are often discussed together.

Ensuring confidentiality is an activity of the researcher to hold data in confidence and within the boundaries of the research process. If participants are guaranteed anonymity, this activity involves keeping their identity confidential.

There are some situations where confidentiality needs specific consideration - consider a focus group where participants are visible and topics are discussed as a group.

The boundaries of confidentiality regarding wellbeing and misconduct also need outlining, including the circumstances in which confidentiality may be breached and why.

View this digital entry at: <https://youtu.be/JGYK0doZUSY>

Confirmation bias

Confirmation bias is the tendency to interpret and search for information consistent with your prior beliefs, assumptions or targets.

This could involve searching for literature which confirms your own thinking, asking questions in an interview which lead the respondents to confirm your own thinking, and selecting illustrative quotes which do the same.

For example, if a university has heavily invested funding into online self-help tools for students, there may be a tendency to look for information which only highlights the benefits of this initiative.

A robust research design and process of analysis, acknowledging any potential bias, limitations or conflicts of interest is essential.

View this digital entry at: <https://youtu.be/sY5DaLgNUeg>

Correlation

This statistical measure of quantitative data is concerned with how closely two variables (questions) are related. You can only assess correlation when using data which is numerical, presented in internals, or in an order.

Findings can be shown visually on a graph and with a correlation coefficient and can lead to conclusions such as:

‘There is a positive correlation between NSS Q10: Feedback on my work has been timely, and NSS Q15: The course is well organised and is running smoothly – as levels of agreement increase in one, they also increase in the other,’ OR ‘there is a negative correlation between length of lecture and the number of students attending – as one increases the other one decreases.’

Qualitative analysis would provide a rich, detailed description of the data, but would not make statistical claims of correlation.

View this digital entry at: <https://youtu.be/6AqUuXfkkqY>

Critical thinking

Critical thinking is a slippery and highly contested process.

For some it is about problem solving whereas others see it as an ongoing and challenging social process.

This latter view is reflected in the definition (adapted from Jones-Devitt and Smith, 2007) in which critical thinking is defined as:

‘Making sense of the world through a collaborative process of questioning questions, challenging assumptions, recognising that knowledge can evolve chaotically; ultimately with the aim of continually improving thinking.’

View this digital entry at: <https://youtu.be/CwmCghj7eGw>

Data

Data is information collected for a specific purpose, including research and evaluation.

A method is required to generate data.

These methods produce quantitative (numbers) or qualitative data (words/visuals).

Analysis is necessary to make sense of data or data only exists as numbers or words/visuals.

Data plus analysis create evidence.

Primary data collection refers to a process of designing a new project and collecting new data. It is different to the analysis of secondary data sources – this is data which already exists.

View this digital entry at: <https://youtu.be/DVOLzAwuCVI>

Evaluation

There are some basic characteristics of evaluation:

- it is structured and planned
- it is objective and goal focused
- it gathers and analyses evidence to help make decisions about things. These decisions may be about interventions, activities and initiatives, and provide actions in response to questions such as 'are they working in the way we had hoped?' or 'are they value for money?'

In a university, researchers and students may be involved in evaluation, for example, projects in local communities which aim to raise awareness and facilitate access into higher education.

Remember that evaluative evidence will be only one type of evidence used to create an evidence base and inform decision making - also watch the entry for evidence-informed decision making.

View this digital entry at: <https://youtu.be/A1gEaaN5iG8>

Evidence

Data gathered through structured research and evaluation is only one component of evidence. Evidence can also include stakeholder values and perspectives, organisational context and practitioner reflections which are collected more informally.

This triangulation of sources can provide a robust rationale for change and can help to eliminate bias which may appear in a single source.

There is a known difference between evidence-based and evidence-informed decision making. The use of the term evidence-based decision making assumes a privilege of quantitative research and evaluation collected by experts.

Evidence-informed decision making takes a more critical and flexible appraisal of the context in which the evidence is being applied.

You may prefer to use evidence informed to acknowledge the importance of the sometimes messy and unsystematic data gathering that can occur within higher education.

View this digital entry at: <https://youtu.be/54G8DwyAIH0>

Gatekeeper

A gatekeeper is a person who stands between the researcher and a potential participant. Gatekeepers are able to control who has access, and when, to the participant.

There are numerous gatekeepers in a university. If you are looking to collect data from students on your course you may want to use the first five minutes of a lecture to advertise the opportunity to participate. The lecturer would need to agree to this - this is known as granting access - and they would be known as a gatekeeper.

Those who administer and analyse institutional surveys or collate notes from Student Rep meetings also act as gatekeepers of that data who you will need to influence them in order to gain access.

Gatekeepers can also help recruit participants, but this can bias the research and should be carefully considered.

View this digital entry at: <https://youtu.be/FKL6WY8KpiA>

GDPR

The General Data Protection Regulation (GDPR) is a European Regulation which formed a new framework for regulating personal data in the UK from 25th May 2018. This replaces the Data Protection Act 1998.

All data controllers and organisations collecting or in any way 'processing' personal data must now comply with this Regulation.

All UK Universities work within this Regulation, and this applies to anyone collecting and storing personal data, including students. Check your institution website for more details, and in particular the Student Privacy Notice which outlines the legal basis for processing personal student data.

View this digital entry at: <https://youtu.be/41sOiWRdYUw>

Generalisation

Generalisation describes the extent to which research findings can be applied to settings other than that in which they were originally tested.

Large surveys which employ random sampling techniques are able to generalise findings from the sample to the wider population.

Qualitative data does not claim to produce findings which can be generalised as it does not collect sample data which is representative of the wider population. Rather, it places merit in the depth of understanding gleaned about the specific setting being researched.

View this digital entry at: <https://youtu.be/OQyDFNtcSb4>

Hypothesis

A hypothesis is a specific statement which relates to a research problem.

It is a statement framed as a suggested answer to a research question and would use an evidence base to support this assumption. Your research findings are then used to empirically test whether your hypothesis was correct.

An example could be: Students are more likely to complete a survey when the email request comes from a known and trusted contact.

A hypothesis is most commonly used in quantitative research and involves statistical testing. In evaluation you may hear reference to a theory of change, which is an approach used to rationalise an intervention and its intended outcomes.

View this digital entry at: <https://youtu.be/jkxKq61oKLo>

Informed consent

The British Association of Educational Research suggests that voluntary informed and ongoing consent is the condition by which participants understand and agree to their participation, and the terms and practicalities of it, without any duress, prior to the research getting underway.

It should be made clear to participants that they can withdraw at any point without needing to provide an explanation.

Consent forms can be handed out to interview and focus group participants at the start of a session with an information sheet which clearly outlines the task and requirement of the participants.

Informed consent to participate in a survey is assumed once the participant clicks 'submit'. This should be outlined at the start and end of the survey. If the online survey does not ask for any personal details and is anonymous, participants will not be able to withdraw their data - this should also be made clear.

View this digital entry at: <https://youtu.be/SVgRNS3e9Hg>

Methodology and Method

A methodology is the justification for the methods used to carry out the research. This will include a theoretical justification of your approach including the overall design, how you will recruit a sample, and how your data will be analysed.

The methods refer to the practical steps taken to collect your data.

A survey and a focus group are examples of a method.

View this digital entry at: <https://youtu.be/PhNnS5egU3M>

Pilot study

A pilot study is often carried out before the main data collection to test the feasibility of the method.

They help to develop and refine research instruments and procedures, including the skills of the researcher.

As students are becoming over-researched, it is important that any study works well and makes the best use of their time.

A pilot study can often highlight practical issues, such as timing and suitability of the research environment, which you cannot accurately estimate.

View this digital entry at: <https://youtu.be/MITrhDRO7wk>

Proportionality

Proportionality is making choices about the design of evaluation or research which are appropriate to, for example, the scale, cost, risk and potential impact of an intervention: ie according to Parsons, 'whether and how use of sources and design choices are 'proportionate' to the circumstances being evaluated and the decision-making needs'.

In practice, those collating evidence should try to find the most robust method possible for the context and try not to be driven by budget and timetable. In reality, this means managing expectations of key stakeholders and re-negotiating resourcing if the work is compromised.

For example, a £5 million spend on a Student Hardship Fund may require an evaluation with a range of quantitative outcome measures and qualitative interpretations to explore impact. This may need to be carried out by an independent evaluator (rather than self-evaluated by the Finance Dept) and may run longitudinally over a number of years to include more than one student cohort.

In comparison, a series of bi-monthly outreach workshops to encourage routes into teaching may be evaluated using pre and post-workshop questionnaires, designed, delivered and analysed by the Outreach Team.

View this digital entry at: <https://www.youtube.com/watch?v=ii-m75h2y9g>

Quantitative and Qualitative

Quantitative data is expressed numerically and has been generated using a structured and rigid data collection method. This means that the focus of the questions and the units for analysis have been prescribed by the researcher (eg closed questions in a survey) or an information management system (eg official student records data).

The aim of quantitative data is to quantify variability in a large sample and look for patterns, trends over time, correlations and sometimes causality and generalisability to a population through statistical analysis.

Qualitative data relies on the interpretation of the data by the researcher. The data collection is more flexible and allows participants to add value to the data by directing the content. Qualitative data can be words (eg from an interview, focus group or a written document) or visuals (eg a photograph or artwork).

The intention is to create a rich interpretation of emotions and perceptions, often including reflections over a period of time.

View this digital entry at: <https://youtu.be/MTgB-l29NWY>

Questions - open and closed

Closed questions ask the respondent to choose from a number of predetermined options. An open question allows the respondent to write in their own answer.

Don't underestimate how long it takes to design good questions! Questions should avoid ambiguous, inappropriate or prejudicial language, and should control bias by avoiding leading questions.

View this digital entry at: <https://youtu.be/l5C5T0jjYtw>

Randomised Control Trial

There are various methods you can employ to evaluate an activity, intervention or initiative. They can utilise either quantitative or qualitative data. Qualitative methods can describe and interpret the context and outcomes, quantitative methods focus on measurement and prediction. Experimental evaluation methods can use quantitative data to attempt to establish cause and effect. In a randomised control trial (RCT), effects of one or more interventions are assessed by randomly dividing a research population into an experimental group and a control group. The experimental group and control group should be similar, and only access to the intervention by the experimental group should differ. This allows any impact to be attributed to the intervention. For example, implementing a flipped classroom approach to half of a module cohort, and a traditional lecture approach for the other. Impact can be measured using statistical analysis of assessment scores. Although championed as good evaluative methods, robust RCTs are difficult to achieve in educational settings due to complexity and the ability to ensure comparable groups. There are also associated ethical implications of withholding access to beneficial interventions for the control group. RCTs require a great deal of thought, design and planning, and if done well can illuminate what works in a given context. Evaluators may also want to consider the range of other possibilities for evaluations including realistic notions of what works, and for whom.

View this digital entry at: <https://www.youtube.com/watch?v=mK-bKB8xYuPY>

Research

Research is defined as activity which seeks to contribute new insights to a body of knowledge.

The research process would include the identification of a research problem and a research question, and the selection of the most appropriate methodology to help answer it.

The tools used within a methodology are often referred to as research instruments.

Those who are involved in the data generation are often referred to as research participants. Research also includes the dissemination of findings and consideration of impact.

For example, institutional research in a university may be conducted to better understand why some students withdraw from their studies.

View this digital entry at: https://youtu.be/xk_szyR7aHw

Response Rate

Response rates are most often applied to survey data collection and refer to the number of surveys completed as a proportion of those that were eligible to complete it.

It is only possible to calculate a response rate when you know the total number of eligible respondents.

For example, an institutional response rate for the National Student Survey may be set a 70% target. This means that it is hoped that 70% of eligible students will complete the survey.

View this digital entry at: https://youtu.be/J7_yQFDyD24

Sample

A sample is a selected target group for participation in your research. A sample is drawn from a wider population (all possible respondents).

You should have a rationale for your sample and think carefully about how you will access them. Your choice of sample relates to your research problem and how you intend to explore it.

You may choose to sample students on a specific course, by a demographic characteristics such as gender or ethnicity, or randomly by selecting every other student sat in a lecture hall.

View this digital entry at: https://youtu.be/0CVm2MQ_seY

Survey fatigue

Survey fatigue, sometimes called respondent fatigue, refers to the deterioration of the quality of survey data as the participant tires of the process.

Surveys fatigue can occur in-survey and can have an effect on the answers are given – selecting answers without consideration (all B's) or repeating a 'Don't Know' answer will have an impact on your overall findings.

Survey fatigue can also occur across a survey population, when multiple requests are sent to the same potential participants.

Without an oversight or survey strategy, important student surveys may incur low response rate or answers which are influenced by agitation.

View this digital entry at: <https://youtu.be/S1tTiYOTFUM>

Synthesis

Synthesis is a process which follows analysis and moves towards a more comprehensive critical evaluation.

This stage of thinking recognises the limits of existing knowledge upon which to build new explanations.

This could include the need to examine gaps in the evidence and a discussion about what new evidence is needed in the future.

View this digital entry at: <https://youtu.be/ZbIS5TV9O58>

Triangulation

There are four types of triangulation - methodological triangulation, data triangulation, theoretical triangulation, and researcher triangulation.

The aim of triangulation is to view evidence from more than one perspective.

Methodological triangulation involves using more than one method (for example, a student survey AND a student focus group) or the same method more than once, to compare and contrast findings collected from the same group of participants.

Data triangulation involves the use of different sources of data, for example, from different groups of participants or data collected within a different time or space.

Theoretical triangulation involves using more than one perspective. For example, applying feminist theory to a proposal would guide the data collection and analysis.

Finally, researcher triangulation would use more than one researcher to compare interpretation and provide a check for any bias that might be apparent.

View this digital entry at: <https://youtu.be/SWG4yx1yVrl>

Validity/ Reliability/ Trustworthiness/ Authenticity

During the analysis of data and consideration of the emerging evidence base it is necessary to verify the quality and credibility of the sources and the process which was used to generate them.

Validity refers to the accuracy of the data and whether it is the most appropriate for answering the research question.

Reliability refers to the design of the research instrument and the extent to which the same results would be generated by the instrument if the data collection was to happen again. These terms are much easier to apply to quantitative data.

Qualitative data uses an assessment of authenticity - what biases may have affected the data collection? Consider who the researcher is and their relationship to the participant.

And trustworthiness - to what extent can you trust the data you have collected? Keeping a researcher diary or reading transcripts with participants are two strategies which can be applied to mitigate.

Some of these verifications are much more difficult to secure with data from secondary sources.

View this digital entry at: <https://youtu.be/0Ql4LNBQCoA>

APPENDIX C: EXTENDED BIBLIOGRAPHY

- Atkinson, R and Flint, J (2001) Accessing Hidden and Hard-to-Reach Populations: Snowball Research Strategies, Social Research Update 33 <http://sru.soc.surrey.ac.uk/SRU33.html>
- Austen, L (2019) Using Evidence for Enhancement https://blogs.shu.ac.uk/steer/2019/01/16/using-evidence-for-enhancement/?doing_wp_cron=1556880565.4775419235229492187500#
- Austen, L (2018) 'It ain't what we do, it's the way that we do it' - researching student voices, WonkHE, 27 Feb 2018
<http://wonkhe.com/blogs/it-aint-what-we-do-its-the-way-that-we-do-it-researching-student-voices/>
- Austen, L and Jones-Devitt, S (2019) Guide to using evidence, QAA Scotland
www.enhancementthemes.ac.uk/current-enhancement-theme/student-engagement-and-demographics/students-using-evidence
- Banks, M (1995) Visual research methods, Social Research Update 11 <http://sru.soc.surrey.ac.uk/SRU11/SRU11.html>
- Barter, C and Renold, E (1999) The Use of Vignettes in Qualitative Research, Social Research Update 25 <http://sru.soc.surrey.ac.uk/SRU25.html>
- Bell, J and Waters, S (2018) Doing your research project: a guide for first-time researchers, London: Open University Press and McGraw Hill Education
- Bransby, T (2018) Data Fallacies to Avoid: An Illustrated Collection of Mistakes People Often Make When Analyzing Data, Data Science Central www.datasciencecentral.com/profiles/blogs/data-fallacies-to-avoid-an-illustrated-collection-of-mistakes
- Burns, J M (1978) Leadership New York: Harper & Row.
- Clarke, A (1999) Evaluation research: An introduction to principles, methods and practice. London, Thousand Oaks (CA), New Delhi: Sage Publications
- Coffey, A Analysing Documents in Flick, U (2014) The SAGE Handbook of Qualitative Data Analysis (online) <https://methods.sagepub.com/book/the-sage-handbook-of-qualitative-data-analysis/n25.xml>
- Creative Arts Cluster (2018) (Collaborative authorship: Gunn, V, Mackay, J, Schrag, A, O'Neill, S, Bennett, S, Miller Judd, P, Kanhye, R, Campbell, A and Sexon, S) Scoping the Creative Arts Territory in the Scottish Context: Teaching Enhancements, Evidence Development, and the Interconnections with the Cultural Ecology of Scotland. Glasgow: QAA Scotland
- Daniel, B (2015) Big Data and analytics in higher education: Opportunities and challenges, British Journal of Educational Technology 46 (5): pp 904-920
- Gorad, S (1999) Examining the paradox of achievement gaps, Social Research Update 26 <http://sru.soc.surrey.ac.uk/SRU26.html>
- Hartlep, N D, Hensley, B O, Wells, K E, Jameson Brewer, T, Ball, D and McLaren, P (2017) Homophily in higher education: Historicizing the AERA member-to-fellow pipeline using theories of social reproduction and social networks, Policy Futures in Education, 0(0): 1-25
- Heron, E (2019) Friendship as method: reflections on a new approach to understanding student experiences in higher education, Journal of Further and Higher Education, published online January 2019

- HM Treasury (2011) Magenta Book
<https://www.gov.uk/government/publications/the-magenta-book>
- JISC (2018) Code of Practice for Learning Analytics www.jisc.ac.uk/guides/code-of-practice-for-learning-analytics
- Jones-Devitt, S and Smith, L (2007) Critical Thinking in Health and Social Care, Thousand Oaks (CA), London, New Delhi: Sage Publications
- Jones-Devitt, S, Austen, L and Parkin, H J (2017) Integrative Reviewing: for exploring complex phenomena Social Research Update 66 (Spring 2017) <http://sru.soc.surrey.ac.uk/SRU66.pdf>
- Jones-Devitt, S and LeBihan, J (2018) Use and abuse of the student voice: leaders' responsibilities for making positive use of student evaluations of teaching in Higher Education York: AdvanceHE
- Katsomitros, A (2017) Big data – disruptive, distracting or adding value? London: Leadership Foundation for Higher Education
- Kinney, P (2017) Walking Interviews, Social Research Update 67
<http://sru.soc.surrey.ac.uk/SRU67.pdf>
- Langan, A M and Harris, W E (2019) National student survey metrics: where is the room for improvement? Higher Education (Online April 2019)
- Lock, D (2013) Project Management, Farnham: Gower Publishing Limited
- Lubicz-Nawrocka, T and Bunting, K (2019) Student perceptions of teaching excellence: an analysis of student-led teaching award nomination data, Teaching in Higher Education, 24:1, pp 63–80 www.tandfonline.com/doi/abs/10.1080/13562517.2018.1461620
- Lumby, J (2015) In the wings and backstage: exploring the micropolitics of leadership in higher education London: Leadership Foundation for Higher Education.
- NESTA (ND) Using Research Evidence: A Practice Guide, National Endowment for Science, Technology and the Arts www.nesta.org.uk/toolkit/using-research-evidence-practice-guide
- O'Donovan, B, Price, M and Rust, C (2004) Know what I mean? Enhancing student understanding of assessment standards and criteria Teaching in Higher Education, 9(3): pp 325–335
- Office for Students (OfS) (2018) Mental health and wellbeing: a priority www.officeforstudents.org.uk/news-blog-and-events/our-news-and-blog/mental-health-and-wellbeing-a-priority
- Office for Students (OfS) (2019) Standards of evidence and evaluating impact of outreach www.officeforstudents.org.uk/publications/standards-of-evidence-and-evaluating-impact-of-outreach/
- Office for Students (2020) Student engagement and consultation www.officeforstudents.org.uk/advice-and-guidance/promoting-equal-opportunities/evaluation-and-effective-practice/student-engagement-and-consultation/engaging-students-in-access-and-participation-work
- Parsons, D (2017) Demystifying Evaluation, Bristol: Policy Press
- QAA Scotland (2018/19) Optimising Existing Evidence: Webinar Series, QAA Scotland Enhancement Themes www.enhancementthemes.ac.uk/en/current-enhancement-theme/optimising-existing-evidence/webinar-series
- QAA Scotland (2018) What does Student-Led Teaching Award nomination data tell us about student perceptions of 'good' feedback? www.qaa.ac.uk/scotland/focus-on/feedback-from-assessment
- QAA Scotland (2018) HE Data Landscape Resource www.enhancementthemes.ac.uk/current-enhancement-theme/defining-and-capturing-evidence/data-landscape-resource#

- Robertson, A, Cleaver, E, & Smart, F (2019). Beyond the metrics: identifying, evidencing and enhancing the less tangible assets of higher education www.enhancementthemes.ac.uk/docs/ethemes/evidence-for-enhancement/beyond-the-metrics-identifying-evidencing-and-enhancing-the-less-tangible-assets-of-higher-education.pdf
- Salway, S, Allmark, P, Barley, R, Higginbottom, G, Gerrish, K and Ellison, G (2009) Researching ethnic inequalities, Social Research Update 58 <http://sru.soc.surrey.ac.uk/SRU58.pdf>
- Sayers, N (2010) A Guide to Scenario Planning in Higher Education, London: Leadership Foundation for Higher Education
- Scottish Government (2016) Race equality framework for Scotland 2016 to 2030, Edinburgh: The Scottish Government
- ScotCen Social Research that works for society website www.scotcen.org.uk
- Sobe, N W (2018) Problematizing Comparison in a Post-Exploration Age: Big Data, Educational Knowledge, and the Art of Criss-Crossing Comparative Education Review, 62 (3): pp 325-343
- Social Research Association (SRA) website <http://the-sra.org.uk>
- sparqs (2015) Recognition and accreditation of academic reps: Practices and challenges across Scotland's colleges and universities www.sparqs.ac.uk/ch/Accreditation%20and%20Recognition%20Guidance.pdf
- sparqs, Education Scotland, The Higher Education Academy Scotland, NUS Scotland, Quality Assurance Agency Scotland, Scotland's Colleges, Scottish Funding Council, Universities Scotland (2012) A Student Engagement Framework for Scotland www.sparqs.ac.uk/upfiles/SEFScotland.pdf
- sparqs (ND) Supporting Students www.sparqs.ac.uk/support-students.php
- Spence, C W (2019) 'Judgement' versus 'metrics' in higher education management. Higher Education, May 2019, 77(5): pp 761-775
- STEER (Student Engagement, Evaluation and Research) (2019) Digital Storytelling @ SHU- https://blogs.shu.ac.uk/steer/digital-storytelling-shu/?doing_wp_cron=1538925861.0197610855102539062500
- Student Minds UK (2019) The University Mental Health Charter www.studentminds.org.uk/charter.html
- Tan, E R, Murray, M R and Loughlin, E (2019) Who's asking? An alternative methodology for engaging students in evaluation exercises, Student Engagement in Higher Education Journal 2(2): pp 29-46
- Townsend L and Wallace, C (2016) University of Aberdeen: Social Media Research: A Guide to Ethics www.gla.ac.uk/media/media_487729_en.pdf
- Trowler, V, Trowler, P and Saunders, M (2018) Responding to Student Voice: Insights into international practice. Glasgow: QAA Scotland
- TSEP (The Student Engagement Partnership) (2018) BME Students in Higher Education <http://tsep.org.uk/wp-content/uploads/2018/04/BME-Students-in-Higher-Education.pdf>
- Universities UK (UUK) (2015) Student mental wellbeing in higher education: Good practice guide www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2015/student-mental-wellbeing-in-he.pdf

- UUK and NUS (2019) Black, Asian and Minority Ethnic Student Attainment at UK Universities: #ClosingTheGap
www.universitiesuk.ac.uk/policy-and-analysis/reports/Documents/2019/bame-student-attainment-uk-universities-closing-the-gap.pdf
- Various (2018) Special edition of the Higher Education Pedagogies Journal, Learning Gain in Higher Education (2018, 3:1) www.tandfonline.com/toc/rhep20/3/V1?nav=toCList
- Victor, L (2008) Systematic Reviewing, Social Research Update 54
<http://sru.soc.surrey.ac.uk/SRU54.pdf>
- Whitney, D, & Cooperrider, D L (2000) The appreciative inquiry summit: An emerging methodology for whole system positive change. OD PRACTITIONER, 32(1), 13-26
- Williamson, B (2018) The Hidden architecture of higher education building a big data infrastructure for the 'smarter university', International Journal of Educational Technology in Higher Education 15 (12): pp 1-26
- Wozny, N, Balser, C and Ives, D (2018) Evaluating the flipped classroom: A randomized controlled trial, The Journal of Economic Education, 49 (2): pp 115-129



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