Reconsidering Evidence in Academic Quality

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Abstract

Rapid changes in data forms and availability and evolving requirements in external quality assurance regimes are combining to prompt reconsideration of the nature of evidence in quality assurance. Although evidence is a longstanding feature of both internal and external quality assurance, much of the commentary is limited to examples of types of evidence with less attention paid to what constitutes good evidence. Evidence for quality assurance can be categorised as being pre-existing or bespoke, qualitative or quantitative, and for and from particular groups or perspectives. Each of these categorisations has implications for how evidence should be considered by universities in their self-review activities and by external audit panels. The quality of evidence itself can be assessed using criteria of relevance, representativeness, verifiability, its cumulative nature, whether it is actionable, contextual and holistic and able to be triangulated. The academic audit framework for the sixth cycle of academic audit for New Zealand universities applies to all students, all delivery and all staff who teach or supervise or support teaching or supervision. Consideration will need to be given to how evidence reflects this embedded or systemic approach to academic quality. The paper develops guidelines for reconsidering evidence in quality assurance.

Introduction

Appreciation of the importance of evidence in academic quality is a longstanding feature of many quality assurance regimes including the quality assurance arrangements for New Zealand universities (Woodhouse, 1998 (3rd Ed.), UNZ and AQA 2013). As these quality assurance arrangements evolve and change and new forms of evidence become available it is timely to re-consider evidence in academic quality and how these changes may present challenges and opportunities for universities and quality assurance bodies.

New Zealand provides a case study in which to examine these changes, challenges and opportunities as it has recently developed a new audit framework with implications for how evidence is developed and used. The audit framework consists of 30 guideline statements phrased in outcomes-oriented language and applies to all students, all delivery and all staff who teach or supervise or support teaching or supervision.

This paper considers the nature and expectations of evidence in external quality assurance by examining the types, sources and characteristics of 'good' evidence and develops guidelines for universities and auditors.

Types of evidence in academic quality

Most comment on evidence in academic audit agrees that evidence can take a variety of forms. (Cameron, 2013) suggested that it included:

- Documents such as existing policies, reports and analyses, principally from internal sources;
- Statistical evidence from internal and, where appropriate, external sources;
- Oral evidence collected during the self-review or audit process; and
- Might also derive from samples of the available information or from *tracking audit trails* [original emphasis].

Alongside the more specific examples of types of evidence, it may also be useful to take a broader perspective and consider that evidence can be:

- Pre-existing or bespoke
- Quantitative or qualitative
- For or from other functional areas, individuals or groups

These descriptors of evidence are not mutually exclusive. For example, evidence could be pre-existing, quantitative and from university planning managers.

Pre-existing or bespoke

It is anticipated that most of the evidence presented in academic audit will be pre-existing. This is consistent with the view that audit should not be an event in of itself and that it should utilise evidence that the university uses in its ongoing management of academic quality. Insofar as an audit framework should be designed to capture and elucidate aspects of academic quality that are important to universities themselves in achieving 'good' student outcomes and experience, a reasonable level of congruence between the information that a university would collect anyway and that sought for academic audit might be expected. Nonetheless the relevance of evidence presented in respect of guideline statements needs to be critiqued. This can also assist in identifying gaps in evidence.

Pre-existing evidence may also be referred to as being secondary evidence, or indirect evidence (Love, 2012). These terms should not infer that it is of less value or importance than bespoke, primary or direct evidence (Stevens *et al.*, 2005). It is important that existing bodies of evidence are known and examined before committing to the collection of new evidence.

Secondary data can be further categorised into internal and external data sources (Stevens *et al.*, 2005). The main advantage of secondary data is that it is already available and may provide a longitudinal view. Potential disadvantages are that that it may be a poor fit with the guideline statement, may be dated, or that the collection parameters are not well specified. Secondary data is likely to be the main type of evidence in academic quality assurance. Therefore, it is important that institutional data are well specified and curated. The QAA (2018) in the UK have recognised that institutional data capability is of increasing importance and have issued a briefing note on "Helping providers get the most from their data". It may also be useful to recognise evidence for audit evidence as indirect as this then raises questions of for what purpose and how the evidence was developed or collected and analysed.

Use of existing or secondary evidence also helps reduce the administrative burden of academic audit. What is important however, is that where universities do use evidence that was compiled for

another purpose, the purpose be identified and the commentary address its appropriateness for the academic audit.

There are a number of challenges associated with use of existing evidence, with the main issue being its relevance to the guideline statement. National performance indicators have been a cause of concern in this regard, particularly if they utilise what can be measured rather than being constructed to evaluate the topic of interest (Harvey 2016). Harvey (2016) also suggests that concerns with national indicators have transferred to rankings.

In the New Zealand context national indicators are mainly confined to the Tertiary Education Commission's (TEC) educational performance indicators and to a lesser extent some indicators available from the Graduate Longitudinal Survey New Zealand (glsnz) (Tustin, *et al.*, 2012) and other surveys such as the ISB and previously the AUSSE. However, national indicators are more widely used, although not without criticism, in other jurisdictions (for example QILT in Australia[1] and the National Student Survey in the UK[2]). Use of the Integrated Data Infrastructure (IDI)[3] in New Zealand also has the potential to increase both the specificity and availability of national indicators.

Bespoke evidence may also be referred to as primary, or direct, evidence. Primary evidence is that generated for a specific purpose, in a specific format and from a specific population or sample (Stevens *et al.*, 2005). Collecting primary evidence brings in questions of research design and analysis. Its main advantage is that it is targeted to the question or guideline statement. However, it may be more expensive to collect and may have a more limited scope compared with secondary data sources.

Quantitative and qualitative

The distinction between quantitative and qualitative evidence is a common one in social science and often relates to differences in underlying philosophies of knowledge (for example Carson *et al.*, 2001). This paper does not attempt to explore the ontological, epistemological and methodological bases of quality assurance, except that to note that preferences expressed across jurisdictions for multiple pieces of evidence and recognition of the importance of context, probably reflect a more interpretative than positivist approach.

Academic quality assurance tends to take an inclusive (and largely atheoretic) view of types of evidence that may be used to support or assess whether a university meets a guideline statement and tends to describe relatively specific 'types' of evidence that could be used. This may be helpful at a practical level, but possibly less so when new types of evidence are developed or when evidence for new academic quality assurance requirements is required.

Both quantitative and qualitative evidence are likely to be used in academic audit. Growth in learning analytics may mean an increased use of quantitative data. While bodies of practice may constitute qualitative evidence, anecdote and opinion are not evidence – neither for universities nor audit panels.

Who is evidence for and from?

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[1] https://www.qilt.edu.au/
[2] https://www.timeshighereducation.com/student/news/national-student-survey-2018-overall-satisfaction-results
[3] https://www.stats.govt.nz/integrated-data/integrated-data-infrastructure/, accessed 20181022

Types of evidence may also be differentiated in terms of who the evidence is for or from. With respect to academic audit, the main distinction to date has been between evidence for the university and evidence for auditors. Within the university, further distinctions may be made in terms of functions and purpose that evidence was collected for – for planning, reporting to government, professional accreditation, improving student learning or academic quality. Again, such distinctions may not be mutually exclusive. For the most part auditors will utilise evidence in the self-review portfolio presented by the university but may also generate their own evidence through interviews or other analyses such as "tracking audit trails" (Cameron, 2013).

As well as asking who is the evidence for, universities and audit panels might also ask who is this evidence from? A number of guideline statements in the Cycle 6 audit framework will be important for multiple groups. Evidence based on indigenous knowledge systems might be appropriate for some aspects of the Cycle 6 audit framework. NZQA have developed Te Hono o te Kahurangi as a quality assurance framework for Māori tertiary education organisations and Te Mana Raraunga (2018) have developed Principles of Māori Data Sovereignty. Cycle 6 academic audit and the audit framework itself reflect a western view of academic quality and universities and panels should be open to how academic quality might be expressed and demonstrated for ākonga Māori and Māori staff.

Quality of evidence

The above discussion has focussed on types of evidence and who evidence is for. It has not explicitly considered what constitutes 'good' evidence – although some of the caveats regarding types of evidence begin to address this question. Examining guidelines from other jurisdictions also yields a number of ways in which evidence can be characterised as 'good'.

WASC (2015 and 2002) provide five principles of good evidence. Evidence should be:

1. Relevant
2. Representative
3. Verifiable
4. Cumulative
5. Actionable

Other jurisdictions reflect and add to these criteria, in advising that evidence should be:

- contextual and holistic (QAA-Scotland, 2017)
- triangulated (Cameron, 2013).

Scheffel *et al.* (2014) have suggested quality indicators for learning analytics. Other work by Berger *et al.,* (2018) suggest that learning analytics have special characteristics including the complexity of learning as a trait, the temporal and changing nature of student behaviours and ethical considerations of intervention-based research.

That evidence should be relevant is reflected in advice from a number of jurisdictions (WASC, 2015; HKCAAVQ, 2018). WASC (2015) suggest that relevance implies validity and that institutions should explain the connection between the evidence and the (in their case) standard.

Relevance of evidence is likely to have two components with respect to Cycle 6. The first is how well (face validity) the evidence addresses the substantive topic of the guideline statement; and the second the extent to which it reflects the embedded nature of academic quality sought in Cycle 6.

This embedded dimension is reflected in the scope of the Cycle 6 audit framework which extends to all students, all delivery and all staff who teach or supervise or support teaching or supervision.

Evidence reflecting the embedded or systemic nature of quality practices may mean that the representative or typical criterion suggested by other external quality assurance bodies including WASC (2015) or the sampling approach indicated in the Guide to Cycle 5 (Cameron, 2013) needs to be considered further, or differently. Cycle 6 academic audit will be seeking evidence that the guideline statement is met across a university and representative evidence is unlikely to be able to demonstrate this. Rather than seeking to provide representative evidence in this sense, universities should consider how evidence reflects all students, all delivery and all staff who teach or supervise or support teaching or supervision. This could mean providing indicators or measures of dispersion, as well as central tendency, or providing evidence for each of the groups of students or staff or forms of delivery that are appropriate for the university.

An initial assessment might be that learning analytics data could assist in providing evidence of embeddedness. However, caution may need to be exercised as that may involve aggregating learning analytics data in ways that may not be appropriate as much learning analytics data will be intended to operate at the scale of the individual student.

Reconsidering the representative nature of evidence in the context of learning analytics which emphasises large volumes of data with potentially high levels of change, suggests that 'representative' in Cycle 6 should capture the direction of change. Knowing whether evidence reflects an increasing or decreasing trend will be valuable to auditors and universities themselves and will help counter the 'point-in-time' criticism of academic audit.

The ability to verify evidence is also a common feature of other jurisdictions. WASC (2002) suggest that this characteristic is associated with reliability of evidence or data and focus on replicability. The term however, is used in a variety of ways and Cycle 5 in New Zealand (Cameron, 2013) associated verification with triangulation. The two treatments are compatible although WASC is concerned with the ability to reproduce the evidence and transparency of the evidence chain, whereas Cameron (2013) suggests that multiple pieces of evidence be used to support a claim.

This approach reflects a recognition that aspects of academic quality (and academic quality itself) may be complex phenomena that cannot be directly observed, and multiple perspectives will strengthen assessment. WASC (2002) refers to this as evidence being cumulative.

In practice, audit panels are unlikely to be able to reproduce evidence. They can however, explore a guideline statement from a different perspective by asking questions of interviewees, either singly or in groups. While triangulation by audit panels was by no means new, a review of Cycle 5 processes (Matear 2018) suggested that audit panels should be explicit about identifying a set of questions that are triangulation/validation questions. This would be consistent with the QAA-Scotland (2017) suggestion that external quality assurance, such as academic audit, can "verify the effectiveness of institutions' internal quality assurance" (p.30).

Finally, WASC (2002) suggests that good evidence should be actionable "such that the institution is able to use this information to improve what it does" (p.12). This is consistent with the enhancement-led approach to quality assurance adopted by New Zealand universities. It is also consistent with the Cycle 6 scope of all students, all delivery and all staff who teach or supervise or support teaching or supervision and WASC (2002) suggest "that both the analysis and presentation of evidence must be appropriately disaggregated to reveal underlying patterns of strength and weakness, or to uncover specific opportunities for intervention and improvement" (p.12).

Disaggregation is discussed above in terms of the need to demonstrate embeddedness of quality practices. The reference to patterns however is valuable as while academic audit occurs at a point in time, evidence should include changes over time. Growth in availability of data as potential evidence presents particular opportunities and challenges here.

QAA-Scotland use two further descriptors for evidence – that it should be contextual and holistic. Cycle 6 Academic Audit also places emphasis on the importance of context, meaning that the audit should reflect the characteristics and priorities of the university being audited. While the same audit framework applies to all universities and audit panels and the guideline statements set out expectations of outcomes and standards that a university of good international standing would be expected to demonstrate, these are not fixed minimum standards, but are relative and dynamic and universities will differ in the emphasis that they place on guideline statements.

In terms of being holistic, the scope of Cycle 6 encompasses all students, all delivery and all staff who teach or supervise or support teaching or supervision. While universities and audit panels will address all guideline statements, academic audit will not provide a summative single assessment of the academic quality of a university as the methodology does not support such an assessment.

Conclusion and Guidelines

Both the forms and volume of data available to support claims of academic quality and approaches to evaluating academic quality are changing. These changes provide a motivation for reconsidering evidence in academic quality. This paper has outlined types of evidence and considerations for provision of evidence. It has used the development of the sixth cycle of academic audit in New Zealand universities as a lens through which to examine these changes and their implications.

This final section suggests some guidelines for universities in presenting evidence and audit panels in considering evidence.

1. Evidence in Cycle 6 will be presented in the context of an individual university. What is appropriate evidence for one university may not be for another.
2. Both universities and audit panels should anticipate that the majority of evidence presented in Cycle 6 will be pre-existing evidence.
3. Quality units are not the only parts of the university with interests in data and information and self-review activities should, at an early stage, examine the university's information architecture.
4. Evidence should be relevant, representative, verifiable, cumulative, actionable, contextual and holistic and triangulated.
5. The most important criterion for evidence is relevance. In Cycle 6 this means relevance of the evidence to the guideline statement and relevance to the embedded or systemic nature of evidence.
6. Tensions are likely to exist between the pre-existing nature of evidence and relevance of that evidence, and universities may need to both explain how the tension has been resolved and use other criteria to determine whether the evidence is indeed appropriate for the guideline statement.
7. Where possible and appropriate, evidence should reflect a longitudinal component so that universities and audit panels can appreciate the direction of change.
8. Universities and audit panels should be open to and expect that evidence may take a variety of forms and some evidence may be based on indigenous knowledge systems.

9. Evidence can be strengthened by drawing on multiple perspectives.
10. Provision of evidence is only part of a university and an audit panel's assessment of whether a guideline statement has been met and the self-reflective analysis and panel assessment remain important.

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