



JADE Issue 13

Expected Publication Date: November 2021

ISSN: 2051-3593

Managing Editor

Georgina Spencer
Will Foster

Administrator

Samantha Mottram

Telephone

+44 (0)1782 734436

Email

jade@keele.ac.uk

Web

<https://www.keele.ac.uk/kiite/publications/jade/>

Address

KIITE, Claus Moser Building, Keele, ST5 5BG

Article:

Title:

Using a committee as a student-staff partnership research group to implement data-driven, research-informed practical applications to benefit the student experience

Type of submission:

Case study

Contact Information:

Dr Harriet Dunbar-Morris PFHEA, NTF, Dean of Learning and Teaching; Reader in Higher Education

University of Portsmouth, Mercantile House, Hampshire Terrace, Portsmouth, PO1 2EG, United Kingdom.

Telephone: 023 9284 5527

Email: harriet.dunbar-morris@port.ac.uk

Acknowledgements:

As chair of the Student Experience Committee at the University of Portsmouth, I would like to express my personal thanks to the members who have acted as a research group to enhance the student experience by taking a data-driven, research-informed approach to implement practical applications to benefit the student experience at the university.

Title:

Using a committee as a student-staff partnership research group to implement data-driven, research-informed practical applications to benefit the student experience

Abstract:

This case study presents a mechanism for implementing research-informed practical applications to benefit the student experience in an institutional setting.

It describes an approach that uses a formal university committee, with representation drawn from staff (both academic and professional services) and the student body, as a research group. The committee/research group takes a data-driven approach to identifying areas for focus: the members collate, present, and rigorously analyse a variety of available institutional data (internal and external, quantitative and qualitative) in order to jointly draw conclusions each year to prioritise and drive enhancements for the student experience in the forthcoming year(s).

The case study presents the progress made in implementing this new approach, exploring the advantages, and disadvantages, of a data-driven, research-informed approach to implementing practical applications to enhance the student experience in an institutional setting, and presents some lessons learned.

Keywords:

Student-staff partnership; student experience; student voice; assessment and feedback; data-driven.

Introduction

In 2014 at the University of [X], through a university-wide conversation with those who studied and worked at the institution, we co-created an institutional vision for a 21st century university. This took the form of developing, with the whole university community (staff and students), the university strategy, the education strategy, and a set of 'Hallmarks of the [X] Graduate' (a set of graduate attributes¹). The importance of community was represented in the education strategy, which committed us to '*providing a vibrant, supportive, collegial learning community of staff and students*'. This framework puts students at the heart of what we do, and, within it, the student voice is absolutely central.

In the education strategy, we committed to:

- Empower **students as partners** in a community of learning where staff, students, practising professionals and employers can **work together** to learn, create, research and solve problems.
- Promote, develop and foster a **culture of co-creation and partnership**, and extend the opportunities for students to engage in peer and inter-cohort training and mentoring programmes.
- Encourage **feedback** from our students and **act upon it**.

- Engage with our students, including through **working in partnership with the Students' Union**, to ensure that their **voice is heard** in discussions and decisions that impact on their education or the wider student experience.

Context

The National Union of Students (NUS) provides the following definition of partnerships as '*...investing students with the power to co-create, not just knowledge or learning, but the higher education institution itself*' (NUS, 2012, p.8). Within the university there are a number of mechanisms which allow the student voice to be heard and acted upon, and this is done in partnership.

One such mechanism is the Student Experience Committee (SEC) which reports to University Education and Student Experience Committee (UESEC). The SEC is chaired by the Dean of Learning and Teaching, and its membership includes Associate Deans (Students) from each faculty, a Head of School representative, representatives from each student-facing professional service, and most importantly elected officers and staff from the University of [X]'s Students' Union (U[X]SU).

Notably, with reference to this case study, it has responsibility to:

- Review and evaluate the quality of the student experience, utilising national benchmarks such as the National Student Survey (NSS), and internal tools such as the Module Satisfaction Questionnaire (MSQ) and the University of [X] Course Questionnaire (U[X]CQ).
- Review the activities of the various contributors to central student support and advice services to promote the alignment of purpose and coordination of activities throughout the student lifecycle.
- Consider and advise on approaches to enhance student support.

However, as we will show, we go beyond simply reviewing data and activities, and we do not confine ourselves to providing advice.

The SEC is also concerned with the university's *Student Voice Policy – Valuing Students' Views and Opinions*ⁱⁱ. As a university we are committed to working in partnership with our students in order to enhance all aspects of the student experience. Our partnership, as set out in the education strategy and embodied in our co-created student charter, means that we work with our students both to hear and value their views and opinions about their studies and the wider student experience, and how to respond to them.

'There is a subtle, but extremely important, difference between an institution that 'listens' to students and responds accordingly, and an institution that gives students the opportunity to explore areas that they believe to be significant, to recommend solutions and to bring about the required changes. The concept of 'listening to the student voice' – implicitly if not deliberately – supports the perspective of student as 'consumer', whereas 'students as change agents' explicitly supports a view of the student as 'active collaborator' and 'co-producer', with the potential for transformation.' (Dunne in Foreword to Dunne and Zandstra, 2011, p.4)

As an institution what we set out to do is to go beyond listening and responding to the student voice, we actively champion the role of students as ‘active collaborators’.

In this case study we will explain how elements of our approach in the SEC are distinctive and different from what generally happens in similar university committees across the sector.

The chair of the SEC has re-focused and developed the committee as a research group for student experience. The purpose is to take a research-informed approach and use the research group as a means for implementing research-informed, practical applications to benefit the student experience in an institutional setting.

As an ‘*authentic leader*’ (George, 2003; Walumbwa et al, 2008) the chair’s approach focuses on engaging staff and students in institutional change by enabling them to work in partnership to determine with the chair the areas in need of enhancement, and develop projects together to create positive change based on their analysis of the collated data.

The chair’s objective is to engage the SEC with her, and empower members, to focus on the evidence, and adopt a role as agents of positive change in addressing matters and enhancing the student experience, instead of simply raising issues at another committee meeting. The chair has adjusted her chairing of the committee to drive a data-driven approach to identifying areas for focus. The research group undertakes joint consideration of the key areas which would benefit from institutional focus and agrees on these at the meeting. In practice what happens, as will be described in more detail below, is that the chair calls on *all* the SEC members to collect and analyse data in advance of the meeting. They then report on their individual analysis of their data at the meeting to enable joint understanding of an emerging combined position on the collated data following discussion. Once the data has been fully discussed in plenary the research group agree which area(s) would bring the most benefit to the student experience if sustained institutional focus were placed on the area(s) and what action or initiatives would bring about positive change. The research group also develop associated projects.

The re-focused committee, as a whole, takes a research-informed approach to its decision-making about the best ways to deliver an excellent student experience. It is based on sound evidence provided by the full range of institutional data available to them and understanding of relevant sector literature and initiatives.

Process

What is meant by a research group? The SEC is asked to focus on a research question: How can we measure and plan for enhancing the student experience for the students now, and the students of the future? It is asked to do this by asking questions of the collated combined data, in order to understand causes, rather than correlations, by using the scientific method: observation – reason – experiment. Or in this case: observation – reason – intervention. Then evaluating the outcomes, or returning to the first stage – observation.

To lead an integrated approach to enhancing the student experience the chair calls on *all* the SEC members to bring and consider the data, and agree the common themes to be drawn from the varied sources. The members of the SEC are from three groups: academic staff from the five faculties; staff from student-facing professional services such as the library, student administration, estates and campus services, the international office and learning and teaching enhancement; and most importantly students through the elected officers and staff of the Students' Union. All of these members are expected to bring and consider data. The chair's role is to facilitate the drawing out of: those voices around the SEC; the common themes from the data; agreement on the areas of institutional focus to effect change.

At [X] we actively encourage students to play a more active role in their higher education experience as partners (see for example Bovill and Felten, 2016; Healey, Flint and Harrington, 2014). Given that it is important that universities both gain a deep understanding of shared responsibility between participants, and emphasise the importance of 'consumer' responsibility to actively shape the value of their experiences (Dollinger, Lodge and Coates, 2018) in the research group we have attempted to adopt a 'value co-creation process', and formed a reciprocal and balanced relationship with our students, allowing for a wider range of 'consumer' voices and preferences to shape all aspects of the service, product, and/or delivery (Prahalad and Ramaswamy, 2004). Furthermore, in the group/committee, we have actively focused on partnership approaches to feedback: *'feedback is not just what teachers offer, but a reciprocal process in which both students and teachers work together to improve learning.'* (Carless in introduction to Baughan, 2020, p.7).

Therefore, at the beginning of each academic year, *all* the members of the research group gather all information (quantitative and qualitative) available to them, at that point, in their faculty, service, or through U[X]SU, using a template which asks them to summarise their sources of data and highlight any potential areas for institutional focus for discussion.

The data reported on has included, for example, internal survey data (MSQ and U[X]CQ, evaluation surveys, Students' Union Quality Report), and national survey data (International Student Barometer - ISB, NSS, UK Engagement Survey - UKES, Destinations of Leavers of Higher Education - DLHE), along with qualitative feedback from a range of mechanisms in faculties, U[X]SU, and the university. The student voice is front and centre and is particularly evident in qualitative feedback gathered by both the university and U[X]SU. Each member presents at the meeting their data and highlights from it what they see are the potential areas for institutional focus.

The committee/research group then discuss the common themes across the combined collated data in order to agree the areas for institutional focus to enhance the student experience in the forthcoming year(s). The members, acting as agents of positive change think beyond their role, and their area, and individual sources of data to agree where as an institution we should focus our attention to best effect. What is key is that the SEC as a partnership of staff and students acting as a research group draw common themes from the variety of sources, where the sum is greater than the individual parts. The SEC as a student-staff partnership research group attempt to identify the 'unknown unknowns' to draw on Donald Rumsfeld's termⁱⁱⁱ.

Having collated, interrogated and discussed the data, the SEC use it to decide where to focus effort in the coming academic year. The decisions are based on the data viewed as a whole and an understanding of what has worked in the sector and how that might be implemented in the University of [X]'s context or at a local level in faculties or schools.

In the following sections some of the types and sources of feedback that the research group present and discuss are described, which are focused on one recent area of institutional focus for illustrative purposes. This may provide some helpful context for those who may be considering refocusing their own committee to work as a staff-student partnership research group.

Assessment & Feedback

Over the 2014-2017 period, much of the feedback, from diverse institutional sources, considered by the research group as requiring institutional focus to enhance the student experience, was predominantly about how students were assessed. In 2018 the focus turned to feedback; as initiatives to address issues with assessment had been implemented and were beginning to bear fruit.

The research group were aware of what Bartlett highlights: *'student engagement with feedback remains a key concern in the higher education sector, with student ratings in National Student Surveys consistently demonstrating that students are dissatisfied with their feedback (HEFCE, 2014).'* (Bartlett in Baughan, 2020, p.21). They were also keen to ensure that the purpose and functioning of our assessment and feedback practices were shared by staff and students; as noted by Francis et al: *'There is increasing recognition that the effective provision and utilization of feedback is a two-way process that requires agency [...] Much of this agency will depend on how both parties perceive and understand their assessment and feedback practices. Without alignment of perceptions and expectations, practice will inevitably continue to be ineffective and a source of dissatisfaction for both parties.'* (Francis et al, 2019, p.469).

Student Voice

The research group have been able to consider for example the following types and sources of student voice data with regard to assessment and feedback:

"Insert Figure 1 about here [Figure 1 is not included in the blind review version as it could not be made 'blind']"

Figure 1 NSS assessment and feedback scores 2018 vs. 2017 [X] vs sector mean

NSS open comment: *'The quality of teaching is superb [...] Weekly reviews allow for everyone to have constructive feedback on work... The lecturers are always available for questions, queries or worries, and do their absolute best to help you through the duration of the course.'*

'84% of students are satisfied with the volume, timing, and nature of their assessments. They told us that they have lots of preparation time, that deadlines can be negotiated, and that lecturers can adapt assessments to suit their needs.'

However [...] there are recurring issues in deadline bunching, both in terms of multiple deadlines being set at the same time, often the same day, and little time to complete assignments after finishing a topic or receiving feedback, both of which have resulted in difficulties in managing workloads.’ (Students’ Union Quality Report, 2016)

Student comments on assessment and feedback from a wide and extended consultation exercise (via open consultation events, student surveys, and consultation in faculties) on the university’s proposed new academic year structure and new curriculum framework, such as these excerpts:

‘Some units I feel have a perfect workload i.e. ones which include two 2000 essays/reports which are due in at the end of first term and end of second term. However there are other units [...] which have assignments due every 3/4 weeks.’

‘Not enough tests and oral presentations.’

‘Not having all the assessments due in on the same date.’

‘I like when the units have a clear assessment guidance.’

Faculties (via the empowered members of the SEC) implemented local changes in 2017/18 resulting in improving results in the NSS satisfaction with Assessment & Feedback scale in the following years:

<i>Faculties Courses</i>	2018	2019	2020
<i>BAL</i>			
C1	69.91	77.48	79.87
C2	58.93	71.43	82.95
<i>CCI</i>			
C3	59.38	83.33	85.94
C4	58.33	54	97.5
<i>H&SS</i>			
C5	67.65	70.83	76.56
C6	68.52	69.12	86.67
<i>SAH</i>			
C7	68.75	78.57	83.33
C8	65.45	72.08	77.27
<i>TECH</i>			
C9	64.06	65	76.43
C10	53.57	68.75	72.73

Table 1 Example of courses with improving NSS Assessment & Feedback scores 2018-2020

The research group have found therefore that we are beginning to see the results of several years of focus on assessment and feedback, although there is still work to do:

“Insert Figure 2 about here [Figure 2 is not included in the blind review version]”

Figure 2 NSS assessment and feedback 2018 vs 2019 [X] vs sector 2019

NSS open comments:

'The feedback on some of the coursework has been a bit generic and could be more useful to show what I need to do to improve my mark for next time.'

'Assessment guidelines are clearly laid out and sufficient support is available for any queries. [...] Structure of units is well thought out, with a clear progression in the topics taught throughout the year'

'So many times our assessments clumped up together. Lately efforts have been made to remedy this, which has been good for the most part.'

"Insert Figure 3 about here [Figure 3 is not included in the blind review version]"

Figure 3 NSS assessment and feedback questions [X] vs the sector 2018 and 2019

As with other research, our research group found that students want feedback that provides examples of how to improve in future work (for example Winstone et al, 2017) and they also need help with making sense of assessment criteria:

Internal course and module survey comments:

'If we have samples of paper from previous years, it would be useful as it can guide us to complete our assignments. Although we are getting maximum help, sometimes it can be overwhelming to have all the information at once without seeing an example. This could go off the tangent in understanding the main goal of the assignments.'

'Short Weekly quizzes are great way of learning. The 300 word essays were perfect for finding out how much we have learnt and significantly helped us for the summative assessments from the feedback provided.'

'We got told a lot of stuff in theory about marking criteria but I'm the type of person who needs practical examples and structure to actually get something to make sense.'

'The resources provided and extended resources were interesting, relevant, and provided a good grounding for understanding the assessment criteria.'

'Add more points of feedback during the year. Show examples of assessments from previous years for a better understanding. More detailed marking criteria.'

Outcomes

As part of the work revising the curriculum at the university^{iv} we developed an *assessment for learning policy* that requires course teams to take a different approach to assessment. One of the key aspects was considering assessment at course level to address the perceptions of overload and bunching of assessment. We

also used the TESTA^v methodology. TESTA, a joint *National Teaching Fellowship Project* funded by the HEA (2009-12) developed an approach that maps programme-level data to provide a rich picture of assessment - the quantity, formative and summative balance, variety, distribution and its impact on student effort, feedback practices, the clarity of goals and standards, and the relationship between these factors and students' overall perception of their degree. Using the baseline data, programme teams can address specific programme-level assessment issues.

We are starting to see the results of these initiatives in the data, the courses designed with the new curriculum framework and assessment for learning policy started to be taught from September 2019, and the first module feedback was gathered in November 2019. However, due to the Covid-19 pandemic, the feedback gathered thus far is not a full reflection of the teaching and assessment of the revised courses.

The partnership work on improving assessment has been appreciated:

Students who took part in TESTA workshops: *'It was really great to get my thoughts across about assessments as I didn't feel my opinion was taken previously!'*

'I think it's really good that the course leaders will hear what we have to say and hopefully make changes in the right directions for the future years.'

Staff members who took part in TESTA workshops: *'It was genuinely interesting to hear the student perspective. Although the key takeaways were mostly issues that we had raised at times in the team, it was very useful to have data to support this and importantly, some focused time when we could all come together to talk about it.'*

'It's clear that the session produced some really valuable discussion points about feedback, and what standards students should be aiming for.'

In our internal course and module surveys students have commented on the appropriateness of assessment and its link to real-world application which were part of the changes implemented in the curriculum-revision exercise:

'I enjoyed the [p]resentation assessment comparing 2 sporting brands. As a sports fan I will always enjoy somethi[n]g that is relevant or about the professional sporting world. I think this is something you should continue to do as much as possible relating work to major teams, events, companies and competition to give insights into real world sports.'

'The quizzes at the beginning of the module were very helpful. The psychometric report. This assessment was very fun and allowed for creativity. It was helpful as we do not get many of those and writing in this style is beneficial as we only write academically, but with this we got to write professionally.'

One outcome of the research group's deliberations in the 2019/20 academic year, which chimes with the comments made by students in the focus groups at King's College London reported by Francis et al (2019), was to set up an assessment criteria working group which developed some recommendations which are now being

implemented within the university of [X]'s current Major Review of Regulations. In the meantime students have commented positively on good practice in internal course and module evaluations:

Student MCQ feedback 2020/21: *'I have found the assessment guidance on moodle across all my modules very helpful and should be continued.'*

'Lessons dedicated to providing explanations and support for the assessments was extremely beneficial in helping me to feel more confident to do the assessments and have a greater understanding of what was expected and had to be included.'

A second outcome related to improving timeliness of feedback in order to help address how the feedback would help improve future work. The university also piloted a new feedback tool which enabled qualitatively different feedback to be provided to students. It allowed personalised, quick feedback and marks on student work. The assessment platform offered innovative tools that allowed staff to embed learning objects and videos in their feedback, and make inline voice comments. It also provided advanced feedback workflows and learning engagement analytics. The pilot has had to be paused due to the Covid-19 pandemic but will be restarted as soon as feasible, as it was welcomed by students. Survey feedback, gathered before the project was paused by the pandemic, found students: valued the use of inline comments to identify where specific improvements can be made; were not deterred by having to view their feedback before seeing their grade; in the majority agreed the assignment feedback would help improve future assignments.

Lessons Learnt

Student voice

The student voice is key to our approach. It is even more important during the delivery of our 'blended and connected' teaching and learning and student-facing services in response to the Covid-19 pandemic. During the development of our blended and connected approach we have kept in mind:

'Good teaching is inextricably intertwined with good curriculum design, which is about planning and aligning what to teach, how to teach and how to assess so that students experience coherent learning.' (Hunt and Chalmers, 2012)

'Pedagogy, curricula and assessment are designed and delivered to engage students in learning that is meaningful, relevant and accessible to all' (Hockings, 2010)

In our discussions at the SEC in September 2021 we will be evaluating how successful this has been when we look at the various sources of data available to us.

Data

In order to have as much time as possible to implement changes the research group must look at the data available early in the academic year. This means taking a snapshot approach, and working with data that may be nearly a year out-of-date (for example induction survey data). Also implementing changes often takes longer than an academic year, so evaluation of initiatives lags. Changes being implemented will not show in the NSS for several years, or in module and course feedback until the following year at the earliest. We recommend being cognisant of this drawback but using it to your advantage if you implement a staff-student research group partnership in your institution. For example, we took a staged approach to initiatives around first assessment and then feedback which are now visible in feedback. We also report on progress made through the data-gathering exercise.

It will come as no surprise that the survey data may say one thing, but interviewed students may say the opposite. A mixed-methods approach is therefore appropriate, and easy to implement given the range of student voice and feedback mechanisms at the university. Triangulation of data is key to the approach and one that we would recommend to those considering implementing it in their own institution.

There is also the question of the data and its original purpose. In fact, in terms of the NSS, it was originally designed for institutions to use internally to enhance the student experience, so it is very pleasing that we are using it in this way in the research group (it is mostly used in the sector for quite other purposes). We would also recommend the authentic sharing of data with the students. The reports produced by the U[X]SU which interrogate several sources of their own and university data combined are very valuable in the process, and the equal voice that the U[X]SU staff and students have as we discuss the data and decide on the areas for institutional focus are key to the success of the enhancements for the student experience in the forthcoming year(s).

Membership and process

The research group has a wide membership. On one hand this is a positive, as it means that many voices, and sources of data, are brought into the mix. A balance is

required to ensure that all members' voices are heard, and that no-one feels that the task asked of them is too alien. In the second year of operation a template was provided to guide the process more tightly in terms of collating themes in the data and interrogating data for areas of institutional focus. The template asks each member to identify potential areas for focus, drawn from their collated data which may be from several sources and be either quantitative or qualitative in nature, and, as appropriate, relevant research or sector understanding. It is also key to empower the student voice in the room, not least because this is the first committee meeting of the year for the elected officers, however the presence of U[X]SU staff, who do not change year on year, has helped with this aspect. We would recommend the use of a template and guidance to empower all members of the staff-student research partnership to be effective agents of positive change and ensure equity of academic staff, professional services staff and student voices.

References

- Baughan, P. (ed), *On Your Marks: Learner-focused Feedback Practices and Feedback Literacy*. AdvanceHE 2020.
- Bovill, C. and Felten, P. (2016). Cultivating student–staff partnerships through research and practice. *International Journal for Academic Development*, 21(1), 1–3.
- Dollinger, M., Lodge, J. and Coates, H. (2018). Co-creation in higher education: towards a conceptual model, *Journal of Marketing for Higher Education*, 28(2), 210-231.
- Dunne, E. and Zandstra, R. (2011). *Students as change agents – new ways of engaging with learning and teaching in higher education*. [online]. Bristol: A joint University of Exeter/ESCalate/Higher Education Academy Publication. Available at: <http://escalate.ac.uk/downloads/8244.pdf> [Accessed 23 July 2021].
- George, B. (2003). *Authentic Leadership Rediscovering the Secrets to Creating Lasting Value*. San Francisco, CA Jossey-Bass.
- Healey, M., Flint, A. and Harrington, K. (2014). *Engagement through partnership: Students as partners in learning and teaching in higher education*. York: HEA.
- Hockings, C. (2010) *Inclusive learning and teaching in higher education: a synthesis of research*. [online]. Available at: www.advance-he.ac.uk/knowledge-hub/inclusive-learning-and-teaching-higher-education-synthesis-research [Accessed: 30 July 2021]
- Hunt, L. Chalmers, D. (eds). (2012). *University teaching in focus*. Oxford: Routledge.
- NUS (2012). *A manifesto for partnership*. [online]. London: National Union of Students. Available at: <https://www.nusconnect.org.uk/resources/a-manifesto-for-partnership> [Accessed: 23 July 2021].
- Prahalad, C. K. and Ramaswamy, V. (2004). Co-creation experiences: The next practice in value creation. *Journal of Interactive Marketing*, 18(3), 5–14.
- Francis, R. A., Millington J. D.A. and Cederlöf, G. (2019). Undergraduate student perceptions of assessment and feedback practice: fostering agency and dialogue. *Journal of Geography in Higher Education*, 43(4), 468-485.
- Rust, C., Price, M E. and O'Donovan, B. (2003). Improving students' learning by developing their understanding of assessment criteria and processes. *Assessment and Evaluation in Higher Education*, 28(2): 147-164.
- University of [X]'s Students' Union's Quality Report (2016). [online]. Available at:

dev.ams3.cdn.digitaloceanspaces.com/media/4oSkwtKKHDKnRnrxrckMVECiKV8YLQQmxfHPDmDCx.pdf. [Accessed 23 July 2021].

Walumbwa, F., Avolio, B., Gardner, W., Wernsing, T. and Peterson, S. (2008). *Authentic Leadership: Development and Validation of a Theory-Based Measure*. Management Department Faculty Publications. 24. [online] Available at: <https://digitalcommons.unl.edu/managementfacpub/24> [Accessed 23 July 2021].

Winstone, N. E., Nash, R. A., Rowntree, J. and Menezes, R. (2016). What do students want most from written feedback information? Distinguishing necessities from luxuries using a budgeting methodology. *Assessment and Evaluation in Higher Education*, 41 (8): 1237-1253.

ⁱ [www.\[X\].ac.uk/about-us/our-people/hallmarks-of-a-\[X\]-graduate](http://www.[X].ac.uk/about-us/our-people/hallmarks-of-a-[X]-graduate)

ⁱⁱ [http://policies.docstore.\[X\].ac.uk/policy-069.pdf](http://policies.docstore.[X].ac.uk/policy-069.pdf)

ⁱⁱⁱ https://en.wikipedia.org/wiki/There_are_known_knowns

^{iv} [http://policies.docstore.\[X\].ac.uk/policy-217.pdf](http://policies.docstore.[X].ac.uk/policy-217.pdf)

^v www.testa.ac.uk