Data analysis
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Innovation in learning and teaching project report

This document presents the findings of a small-scale qualitative study into the motivations of higher education providers for pursuing strategic-level innovations in learning and teaching; the source of these innovations; their impact on the learning experience of students; and their financial implications for higher education providers. The project tells us why some institutions invest in innovation in learning and teaching, and what the enablers of innovation in higher education are.


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Innovation in learning and teaching project report

To	Heads of HEFCE-funded higher education institutions Heads of HEFCE-funded further education colleges Heads of universities in Northern Ireland Heads of providers with specific course designation or degree-awarding powers
Of interest to those responsible for	Learning and teaching
Reference	2016/17
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Executive summary

Purpose

1. This document presents the findings of a small-scale qualitative study into the motivations of higher education (HE) providers for pursuing strategic-level innovations in learning and teaching; the source of these innovations; their impact on the learning experience of students; and their financial implications for HE providers. The project tells us why some institutions invest in innovation in learning and teaching, and what the enablers of innovation in HE are.

Key points

2. The project findings are based on qualitative analyses of phone interviews, and a focus group with institutional participants from a purposive sample of 21 HE providers that took place between October 2015 and March 2016.

3. The role of students, marketisation, regulation and leadership in supporting innovation in a rapidly evolving landscape were considered. The report highlights the diverse influences on innovation and the importance of national facilitation in helping underpinning systems work effectively. It also notes the vital role of institutional leadership and the need to engage students and governing bodies.

4. The research also secured suggestions from institutions on potential developments to support innovation in learning and teaching. These included providing vision and focus by putting innovation on the agenda; convening networks; workshops; and encouraging cross-institutional collaborations to share knowledge and information across the sector, internationally and between types of HE provider. Student and employer engagement were identified as key drivers of innovation.

Action required

5. This report is for information only. No action is required.

Further information

Further information is available from Amanda Wilcox (tel 0117 931 7086, email, a.wilcox@hefce.ac.uk) and Siobhan O'Malley (tel 0117 931 7323, email s.omalley@hefce.ac.uk).

Introduction

6. The project was intended as a snapshot of the strategic approaches a range of institutions were undertaking, or planning to undertake, in relation to learning and teaching innovations, in a landscape of continuing interest in the student experience, institutional efficiency, institutional sustainability and the emerging Teaching Excellence Framework.

7. The project was carried out by HEFCE's Institutions Directorate and the Learning and Teaching team. It forms part of our work to inform policy thinking, support risk analysis, and identify opportunities to stimulate innovation and excellence in teaching, research and knowledge exchange, as set out in our Business Plan[1].

Objectives

8. The project objectives were to determine: the motivations of higher education providers for pursuing strategic level innovations in learning and teaching; the source of inspiration for these innovations; their impact on the learning experience of students; and their financial implications for higher education (HE) providers. The details of institutional innovative activities were outside the project scope.

A note about the Teaching Excellence Framework

9. Shortly after commencing the project, government proposals for a Teaching Excellence Framework (TEF) were announced in the Government's Green Paper, Higher Education: Teaching Excellence, Social Mobility and Student Choice[2]. In response, questions were incorporated into the interviews and focus group discussions to explore how the TEF proposals might affect participants' innovation plans, but the primary focus of the project was retained.

Methodology

Briefing the project team and participants

10. The terminology for learning and teaching innovation can be contentious but this project was concerned with institutions' own interpretation of the 'innovation' agenda. To ensure consistency, however, a briefing describing the conceptual frameworks guiding the project was provided for interviewers, and this was shared with participants in the interest of transparency. 'Innovation', and the forms it might take, were not defined or assumed for the purposes of the project.

Sampling

11. Higher education providers taking a strategic-level, whole-organisation approach to innovation in learning and teaching were purposively sampled to span as broad a range of provider type, size and location as possible within the time and resource limits of the project.

[1] See www.hefce.ac.uk/about/plan/.

[2] See https://www.gov.uk/government/consultations/higher-education-teaching-excellence-social-mobility-and-student-choice.

12. A longlist of 45 potential participants was identified by the project team, through talking to HEFCE Institutions Directorate staff and sector agency contacts, and by trawling internal and public information sources for potential indicators of strategic commitment to innovation. For example, the project team looked at:

- Times Higher Education Awards
- Quality Assurance Agency for Higher Education (QAA) commendations in enhancement of student learning opportunities
- Office for Standards in Education, Children's Services and Skills (Ofsted) judgements of 'outstanding' for teaching, learning and assessment between 2013 and 2015
- Research Excellence Framework submissions in Unit of Assessment 25, Education
- higher education provider institutional strategies
- higher education provider bids for HEFCE Science, Technology, Engineering and Mathematics Capital funding
- higher education provider bids for Catalyst funding.

13. The longlist of providers was sampled by a team in HEFCE's Analytical Services Directorate to provide a shortlist of 30 providers that included a balance of provider type (university, college, alternative provider), size (defined by total student numbers), geographical region, campus type (using distance learning numbers as a proxy for single or multi-campus providers) and average entry tariff.

14. Shortlisted institutions were contacted to explain the scope of the project, invite participation and establish the most appropriate person for the phone interview. Typically this was the Pro-Vice Chancellor for Learning and Teaching at universities, and the Principal or Deputy at further education colleges and alternative providers. A final sample size of 21 institutions was available to participate within the timescale of the project.

Project design

15. The project had two phases, interviews and a focus group.

Phase one: Interviews

16. A series of 21 semi-structured phone interviews were carried out during December 2015 and January 2016 to explore motivations for innovation and identify institutions with whole-organisation approaches willing to participate in a more in-depth discussion.

17. Interviews took approximately 45 minutes and were conducted by a pair of interviewers, with one interviewing and the second taking notes. Interviewers were drawn from the project team with additional resource from HEFCE colleagues trained in qualitative interviewing skills. Interviews were written up and a qualitative analysis of content and themes carried out.

18. A sub-sample was identified of ten participants with a high level of congruence with the project objectives who were available to participate in Phase two of the project.

Phase two: Focus group

19. The initial analyses of the interview discussions were tested and developed into a deeper understanding of provider views at a focus group discussion on 24 February 2016 with the sub-sample of 10 higher education providers. Each provider in the sub-sample fielded one or two representatives to participate in the focus group discussions.

Outcomes

Motivation

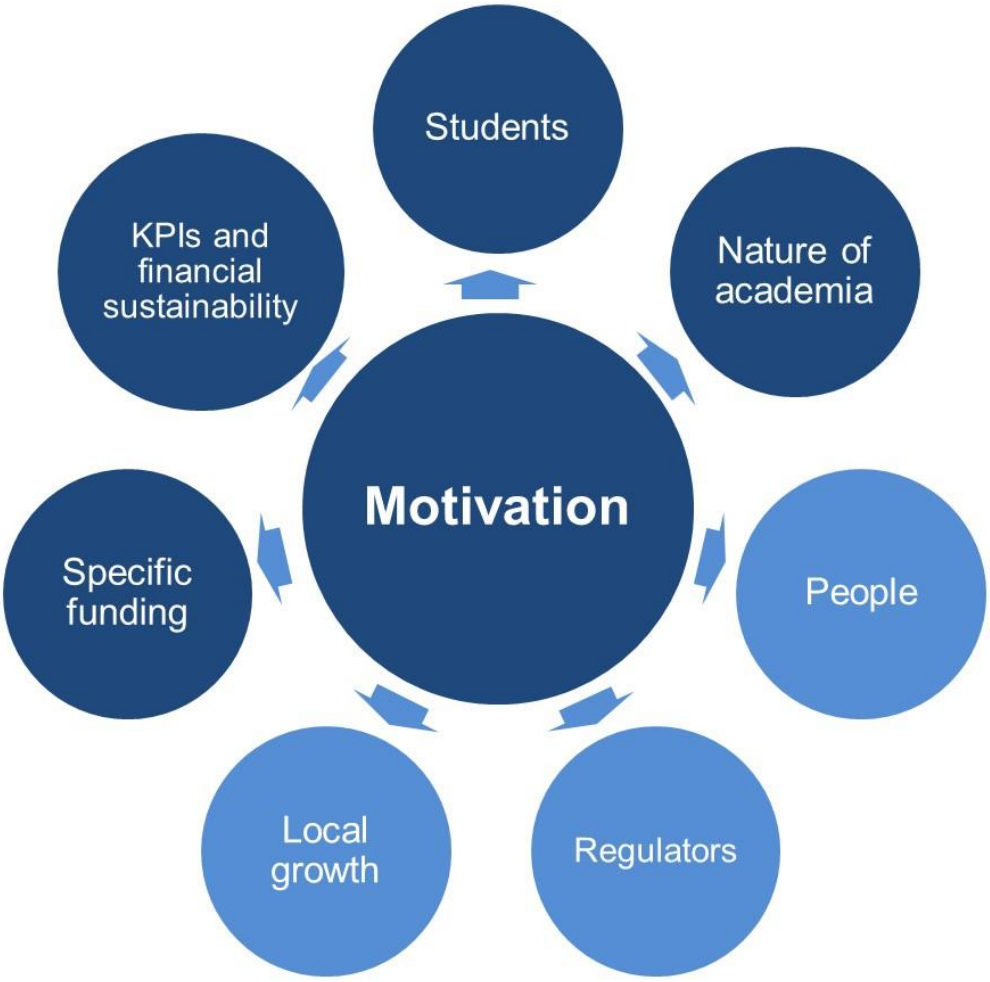
20. With the project focus of institutional motivations, sources of inspiration and the impact of learning and teaching innovations, we asked participants to tell us about the broad drivers behind their strategic approach to innovation in learning and teaching.

21. The word cloud at Figure 1 shows the 30 words used most frequently in response by participants (excluding interviewer dialogue) across all the interviews.

Figure 1: Motivation word cloud

22. Participants talked about a wide range of drivers running from macro to micro level, across institutional motivations and social drivers. The most frequent themes from the interviews and focus group discussions are illustrated in Figure 2, with the paler background representing less frequent themes.

Figure 2: Motivations for innovation



Students

23. Students were cited as the primary driver for innovation in learning and teaching, in terms of innovation as a mechanism for delivering student choice; reflecting student feedback; exceeding student needs and expectation; enhancing outcomes and employability; and fulfilling an ethical or moral duty to do the best for students. As one participant explained, 'We wanted to do a better job for students.'

Key performance indicators and financial sustainability

24. The role of key performance indicators (KPIs) and financial sustainability in a competitive market were discussed in terms of improving league table positions and performance against benchmarks. Metrics such as the National Student Survey, the Destination of Leavers from Higher Education survey, degree outcomes, differential degree attainment, employability, widening participation (specifically access agreement commitments) recruitment, and retention and progression data were cited as drivers for strategic innovation to enhance the provider's reputation.

25. This theme was exemplified by one participant who said, 'It would be naïve to underplay the importance of the KPI position.'

The nature of academia

26. Participants described the inherent nature of academia both in terms of the social equity dimensions (such as widening participation, equality of access to quality provision and outcomes) and as a continuous progression of learning, for example through striving for excellence and adopting the best pedagogical practice.

Other motivations

27. Feedback from employers drives change and innovation, as does specific funding to support new developments and specific people, such as senior staff driving top-down initiatives or practitioners motivating bottom-up innovations. Participants from further education colleges cited Ofsted both as a driver of organisational behaviour which may support innovation and as a barrier, as colleges may become more risk-averse to protect their Ofsted outcome and therefore reputation. There was some mention of student demand for local, affordable provision, raising skills, and enhancing the local economy as motivators for strategic innovations.

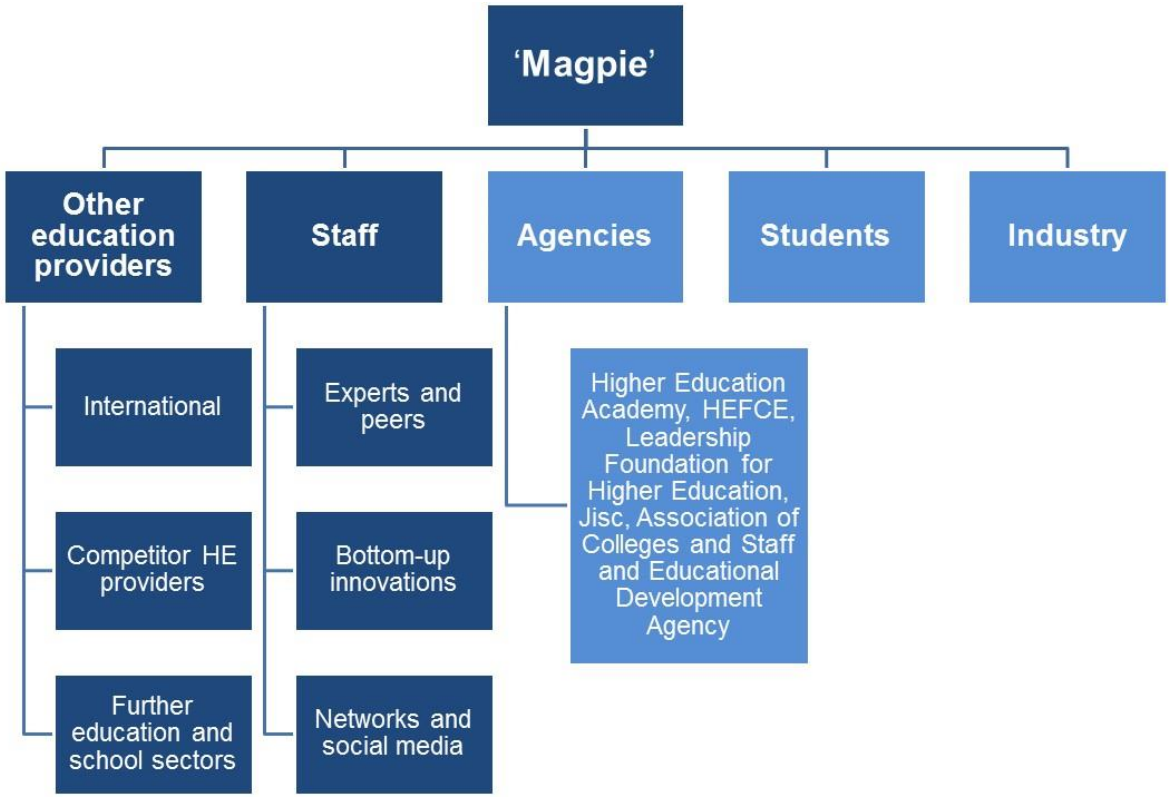
Inspiration

28. We asked participants, 'What were your sources of inspiration in developing your innovative practice?' The word cloud at Figure 3 shows the 30 words used most frequently in response.

Figure 3: Inspiration word cloud

29. The overall responses were characterised by this response: ‘A magpie type approach really – identifying and pulling together the various things that have been shown to work’, as illustrated in Figure 4. The boxes with a paler background in Figure 4 represent themes that emerged less frequently.

Figure 4: Inspiration themes



Other education providers

30. The sources of inspiration cited by participants included ‘my colleague in the office next door’, Australian universities, pedagogical research, conferences, social media, personal and professional networks, professional bodies and sector agencies, and visits to other local, national or international institutions, colleges and schools. Some higher education providers were mentioned by participants as having provided a source of inspiration, including the University of Exeter, University College London, the University of Coventry, the Open University, Blackpool and the Fylde College, Weston College and Wharton Business School. The range of providers that had inspired was also commented on: ‘After the Green Paper we’re taking a lot of interest in the whole sector and not just the Russell Group.’

Staff

31. Staff were cited as sources of inspiration. The staff theme included visiting academics, peers and expert practitioners, as well as colleagues bringing ideas from previous roles at other HE providers, and external roles such as being QAA assessors, external examiners and members of advisory boards. This theme was typified by the comment: ‘Many colleagues give inspiration – within the university, at others and overseas.’

Agencies, students and industry

32. The agencies and programmes cited by name were: Higher Education Academy subject centres; Pro-Vice-Chancellor for Learning and Teaching networks; the Staff and Educational Development Agency; the Leadership Foundation for Higher Education; the Institute of Educational Technology; the Higher Education Policy Institute; the Industry Training Authority; the HEFCE-funded 'Changing the learning landscape' programme[3]; the Association of Colleges; Jisc; and the Open University's work on digital innovations.

33. Students were viewed as providing inspiration, particularly those who were employed and brought knowledge and experience from industry. Industry as a direct source of inspiration was given very brief mention by the participants from the HEFCE-funded universities and colleges, but was more of a theme for the participants from alternative providers.

Impact

34. We asked participants, 'What are the intended impacts or outcomes of your innovation?' The word cloud at Figure 5 shows the 30 words used most frequently by participants across all the interviews in response.

Figure 5: Impact word cloud

35. The centrality of students was evident throughout the interviews and focus group discussions, with participants agreeing that while metrics were important, the most valued feedback was knowing they had changed someone's life direction. This theme was epitomised

[3] See www.hefce.ac.uk/news/newsarchive/2015/Name,103836,en.html.

by one participant who said, ‘League tables are not irrelevant. We want to be in there if they’re produced but I get most joy out of feedback from individual students.’

36. However, the desired outcome of innovation, the look of ‘success’, is specific to the context, stakeholder and institution. For example to an employer, an outcome of ‘enhanced institutional reputation’ means they can employ the right graduates with the right skills. Students may understand ‘enhanced institutional reputation’ in terms of the value of the institution’s degree and the concomitant employment opportunities being enhanced. The same outcome may be considered in terms of public awards and recognition by staff; and to the HE provider’s senior management team ‘enhanced institutional reputation’ might be measured by an increase in student application numbers.

37. The balancing act to be struck between risk and measured outcomes was a key consideration in the ‘impact’ discussions.

Metrics

38. Typically impact was measured systematically through programme and project evaluation structures, particularly where external funding was involved. Some impact was described as easy to measure, for example purposive innovation aimed at narrowing an attainment gap.

39. Key performance indicators such as student achievement, recruitment, satisfaction and retention rates; programme growth; and an institution’s ‘students being at the top of the list wherever they go’ were cited as measures of innovation impact. Surveys were commonly used to capture perceptual measures such as staff satisfaction, and learner analytics to measure student engagement, such as the number of students logging on to resources.

40. Financial indicators were discussed in terms of student numbers and whether there was a significant return on investment for both the HE provider and the student.

41. All participants mentioned the difficulties of measuring impact beyond standard evaluation processes and high-level metrics. Institutional practice varied from not measuring outcomes, to exploring new methods, to the creation of specialist teams to advise on strategy, such as the Centre for Higher Education Research, Innovation and Learning. Most felt they needed to do it better, or to do more to understand the outcomes of innovation, exemplified by one participant’s statement: ‘We haven’t cracked this yet.’

Risk

42. Caution was expressed at the potential for over-reliance on proxy measures which can provide broad indicators but not granular details. Innovation was described as being inherently risky, and some described students as conservative in their cultural expectation of teaching and learning methodologies. Any risk was seen as contributing to institutional conservatism.

Discussion

Students are at the heart of higher education

43. The student interest is central to institutional considerations, and strategic innovation in learning and teaching is no exception. In terms of motivation, positive student feedback acts as a pull factor and dissatisfaction a push factor. As a source of inspiration, students who are employed and students who are employers bring ideas from industry to the learning environment.

Student recruitment, retention, progression, achievement and satisfaction metrics provide the only sector-wide impact measures.

Measuring impact is difficult

44. Innovation has impact beyond what quantitative metrics can measure. Project and programme evaluation measures are well established and, though elements of if may be projectised, 'innovation' is not a project in itself. Key performance indicators are typically proxy measures and operate at institutional level rather than being specific to learning and teaching or innovation. Many innovations are highly contextually specific, and generic measures are not feasible or appropriate.

Innovation is marketised

45. Innovation can provide competitive advantage**.** Participants spoke of their institution's distinctive and attractive provision, their positioning in the market, the need to stay ahead of competitors and to be at the top of league tables, and the financial drivers of efficiency and effectiveness.

46. Cost considerations for funded providers were expressed as being deeply embedded into recruitment considerations. For alternative providers, financial sustainability concerns were more obvious, epitomised by one comment: 'Survival in the wild world of the market. We cannot afford not to do it.'

47. Innovation may also be used as a strategic tool for specific purposes, such as widening access, enhancing employability and reaching a broader pool in a global market via new technology, or bringing teaching in research-intensive universities up to the same standard as research.

48. Internationalisation drives innovation to meet the needs of a diverse cohort and to increase student recruitment. This finding echoes the literature in this area[4], which suggests the pressures from the globalisation of competition for students and faculty are a key force in HE innovation.

Innovation is risky

49. Risk is inherent to innovation. Innovation in either delivery or desired outcomes creates uncertainty such that institutions may prefer to use tried and tested means to meet clear outcomes and protect KPIs, league table position and reputation. Untested innovation encourages institutional conservatism.

50. The difficulties of measuring the impact of innovations further reduces the ability to develop a robust evidence base of what works. For example, participants described students as being 'digitally native' because they use technology all the time, but they could not say that students' ease with technology was translating into learning via digital technology, so it was difficult to make strategic decisions about digital learning innovations. A strong evidence base supports strategic decision-making and innovation.

51. Some students are conservative in their expectations when they arrive in higher education, preferring the traditional methods of teaching that they are familiar with. In this context, innovative learning and teaching practice risks lower student satisfaction outcomes. With the

[4] For instance Brennan et al (2014), 'Study on innovation in higher education: Final report' http://eprints.lse.ac.uk/55819/.

internationalisation and increasing cultural diversity of student cohorts and staff, expectations of learning and teaching are diverse and one size does not fit all.

52. There is a potential tension between valuing student diversity as an important element of the social learning offered by providers, and managing the diversity of cultural expectations of learning and teaching methodologies. Managing expectations, meeting student needs, providing value for money and achieving successful outcomes in terms of institutional metrics and league tables is highly complex and risky even in 'steady state'. Innovation should provide the means to meet those challenges, but presents new challenges in itself.

53. There is also a question of when the value of innovation is realised. If it is retrospectively, for example when students receive their grades, then gathering feedback is more difficult, which exacerbates the difficulties with measurement and evidence bases, and increases risk.

54. With a long list of intrinsic and extrinsic difficulties associated with innovation, why do institutions do it?

Institutional and individual motivations matter

55. Innovation will always happen. How well it is identified, shared, supported and incentivised will determine its extent and impact. Whether the individual and institutional motivation levels were low or high was suggested as a determinant of whether innovation was supported or stifled. The drive to innovate may be intrinsic to learning and teaching, market-driven, personal, institutional or, more likely, a complex blend of all these motivations.

56. A high level of passion for continuous improvement, excellence and the adoption of pedagogical best practice was evident throughout the interview and focus group discussions, typified by one participant as 'the nature of academia, the joy of it and willingness to innovate' (high personal motivation).

57. Others described 'What's in it for me?' scenarios where a lack of career progression incentives for learning and teaching compared with research (low institutional motivation) resulted in academic staff being less motivated to invest their efforts in learning and teaching innovations (low personal motivation), as it took them away from their research activities.

58. Regulation provides high institutional motivation for some types of higher education provider. For example, Ofsted can drive innovation and quality in further education colleges, or it may act as a barrier to innovation by encouraging risk-averse behaviour. Funded higher education institutions considered the QAA in terms of academic governance and baseline measures, not innovation. Alternative providers described regulation as a tool for improving their market position by behaving like a member of the funded sector.

The Teaching Excellence Framework

59. Innovation and excellence in teaching and learning are closely linked, and the TEF was discussed in terms of the metrics and indicators that it might use, its potential to support innovation, and the parity for teaching and research that it might achieve.

60. The focus on excellence in teaching was welcomed, illustrated by one participant's statement that, 'Excellent teaching turns even the worst design into the best experience and the reverse is true'. The enthusiasm for the aims of the TEF was accompanied, however, by a nervousness about what it might actually do and caution against an over-reliance on metrics. The need for contextualisation and the potential for unintended consequences to increase institutional

risk aversion and work against the student interest were discussed. For example, if the TEF and the broader climate (notably the Competition and Markets Authority) brought increased bureaucracy and regulation, they might stifle innovation.

61. How regulation might support, drive or inhibit innovation across the sector will be important considerations in the evolution of the quality assessment and teaching excellence landscapes.

Conclusion

62. To maximise the extent and success of innovation, the enablers of innovation and how to activate them need to be understood. Leadership emerged from this project as the primary enabler. Enthusiastic champions may come from any level of an organisation, but commitment from the board, vice-chancellor or senior management team is the key enabler for the success of any type of organisational change, including innovation.

63. Fostering a culture of innovation requires leadership to facilitate the allocation of resources; role-modelling; brokerage of relationships with external stakeholders, investment in key posts, structures and networks; and accessibility, consistency and clarity of communications with staff. Commitment from the top provides recognition for leading educators as academic leaders. As stated by one participant, 'If the board or vice-chancellor is motivated, it drives everything.'

64. Leadership is not the only enabler. Innovation is encouraged by funding, investment and underpinning structures and processes, for example, but leadership (or its lack) was proposed as the determinant of these enablers. For example, leadership enables investment in a safe space to pilot riskier innovations, or to invest in schemes to fund individual pedagogical impact. Participants noted that there was sometimes insufficient time in the academic year to spend project funding. In this context, time was posited as a resource, and leadership as the mechanism for directing funding that would free up staff time for innovative curriculum and learning developments.

65. Leadership and investment support the structures and processes underpinning innovation. These include institution-wide and interdisciplinary networks; autonomy for schools and faculties to develop ideas; and continuous professional development for staff (especially support for digital literacy). Leadership enables innovation by investing in technology, estates, facilities and key professional staff.

66. For research-intensive higher education institutions, the issue of parity of esteem between research and education was particularly pertinent, and there is a rich stream of literature on the relationship between the two and the role of career structures[5]. This was echoed in our project, which positioned leadership as an enabler of innovation by creating changes to promotion criteria, to provide parity of esteem for teaching and research.

67. These project findings corroborate the findings of the HEFCE-funded 'Changing the learning landscape' programme, which examined success factors for creating an environment for change[6].

[5] See the Higher Education Academy's resources on rewarding educators and education leaders at https://www.heacademy.ac.uk/resource/rewarding-educators-and-education-leaders.
[6] See www.hefce.ac.uk/news/newsarchive/2015/Name,103836,en.html.

Recommendations

68. In the context of the changing landscape and architecture instigated by the Government's Green Paper, we asked participants how HEFCE might support innovation in learning and teaching in the future. Without knowledge of the exact future functions and responsibilities, HEFCE was positioned as a change agent, a sector leader, a regulator or all of the above. Some of the complexities and potential complementarities and conflicts within these roles were considered, as summarised below.

a. Unconditional funding was posited as a bridge between innovation and risk. Participants viewed HEFCE's shift from formulaic to outcome-based funding as an opportunity to stimulate innovation, through direct project funding, strategic core and competitive funding, a wider remit for Catalyst funding, access to research grant funding for teaching, or a major prestigious prize for learning and teaching in addition to the HEFCE-funded National Teaching Fellowship Scheme, described by participants as 'a Nobel prize for learning and teaching'.

b. HEFCE could support innovation as an honest broker and convener, providing vision and focus by putting innovation on the agenda, convening networks and workshops, and encouraging cross-institutional collaborations to share knowledge across the sector, internationally or between types of HE provider.

c. Project findings suggested higher education institutions were slower than further education colleges and alternative providers to be interested in new apprenticeships and the co-creation of curriculum. Recent European Research Council research[7] posed the extent of business engagement as one of three main drivers of undergraduate programme innovation. While not one of the main drivers cited in this project, participants agreed it was an area for future development and one in which HEFCE support would be welcomed. With the introduction of the apprenticeship levy, it will become increasingly important for regulation, innovation, employer engagement, curriculum design and funding systems to work together. An effective institutional approach to employability may smooth the journey, and HEFCE could encourage and support that process.

d. The difference between employment and employability as indicators of success was considered as an outcome of innovative curriculum design. Participants saw a larger role for HEFCE in supporting innovative design through advice and support for providers on degree apprenticeships, national colleges and institutes of technology.

e. Risk might be shared or reduced through information exchange at a sector level but participants also considered HEFCE's role as a protector of UK higher education ('UKHE plc'), student confidence, international competitiveness and sector autonomy. These complexities need to be balanced with HEFCE's regulatory responsibilities.

f. Participants considered that HEFCE, as a political influencer, could ensure the TEF benefitted the whole sector by improving design, aiding delivery and ensuring a strong qualitative element. Simultaneously, HEFCE was viewed as an architect for the sector

[7] European Research Council Research Paper 39, 'The marketization of higher education: A causal analysis of innovation in UK universities' (February 2016), www.enterpriseresearch.ac.uk/publications/marketization-higher-education-causal-analysis-innovation-uk-universities-research-paper-no-39/.

which could support innovation by lightening the bureaucratic load, such that any space released by the changes to quality assessment was not filled up by the TEF.

Next steps

69. The project findings suggested a number of opportunities for HEFCE to support innovation which HEFCE considered with a view to informing the direction of policy development and engagement with institutions.

70. The opportunities for supporting innovation considered included: in the development and implementation of the TEF; in the programmes of work in the Learning and Teaching policy team; in providing evidence and information relating to key themes or the particular needs of students; in the architecture of the quality assessment system; in incentivising engagement with the apprenticeship agenda; and in our engagement with leadership teams and governing bodies.

71. We considered further how HEFCE's role as a convener could encourage collaborative development, the sharing of risk, methods and strategies of innovative practice, and innovation through targeted Catalyst programmes and Teaching funding. For example, we considered whether HEFCE might:

a. Support activity that increases our understanding of innovation through a student interest lens, as the extent of student engagement throughout the innovation life cycle was highly variable among project participants.

b. Map out sector innovation activity that was outside of the scope of this project. This would support a better understanding of thematic issues, student needs and the potential for collaboration or efficiency, and increase knowledge of absolute and relative innovation in the sector.

c. Explore the lessons learned, the good practice to be shared in this area and the potential connections to be made between the innovation and learner analytics agenda. It is not clear how far apart the impact measures of specific innovations are from those subsumed into broader institutional outcomes, for example.

72. These recommendations were considered by the HEFCE Teaching Excellence and Student Opportunity Strategic Advisory Committee and the HEFCE Executive. These discussions culminated in the recent circular letter 'Catalyst Fund: Innovations in learning and teaching (two calls)', (HEFCE Circular letter 20/2016, www.hefce.ac.uk/pubs/Year/2016/CL,202016/).

73. We would like to thank all the project participants for their generous and candid contributions, without which the project and subsequent Catalyst Fund calls would not have been possible.