

# **An Exploration of the Teaching-Research Nexus in Humanities and Social Sciences in Higher Education**

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## Abstract

This two-armed project critically examines the existing evidence base and addresses evidence gaps related to a possible relationship between teaching and research in higher education, particularly focusing on academic work in the humanities and social sciences. The study considers the significance of terminology such as 'teaching-informed research' and questions whether the concept of a teaching-research nexus in higher education appropriately represents contemporary reality in higher education.

The first arm of the project is a scoping exercise involving interviews with senior academic staff and 213 questionnaire responses from academic staff at ten universities in England and Wales. The universities were selected to be geographically representative as well as having relative strengths in teaching, research, or a balance of both teaching and research. This is a distinct contribution to previous research which has focused on research-intensive universities or studied the relationship in single institutions. While there is some evidence to support a relationship between teaching and research, academics within the same institution tend to define the nexus as either *concordant* or *discordant*.

The second arm of the project is an international policy scan and interviews with higher education senior management in countries categorised into three groups: New World, Europe, and East and Southeast Asia. While in the sample countries a teaching-research relationship is viewed as important, although interpreted differently, it is also clear that the practical realisation of the nexus faces obstacles and challenges at national and institutional levels. Data reinforce the findings from the England and Wales study, highlighting challenges at different levels: institutional and individual.

A key finding of the research was the idea of the 'holistic academic', for whom professional identity is about why one does things rather than what one does, or who one is. The main consideration on this key point is the complexity of academic life, that it is not just about contract type, but that how it is interpreted is influenced by institutional and systemic conditions – which can be managed in ways which promote a close relationship between teaching and research or which make bringing them together more arduous.

We contend that we are at a point where the concept of a nexus may no longer carry the same meaning, and that efforts to *develop* a nexus may no longer prove to be a worthwhile imperative. Globally, the increasingly competitive higher education sector is moving towards a greater demarcation between teaching and research with potential risks for the quality of teaching, the quality of research and the quality of students' learning. However, we concede that calling into question the nexus itself rather than often unrealistic expectations of "research excellence" and "teaching excellence" within the workload and time constraints of academics would be too strong. This report shows that the concept of the nexus is becoming much more complicated, diverse, multifaceted, multidirectional, etc. and so simplistic notions of a nexus in being challenged (in theory and in practice), should not amount to a dismissal of a nexus altogether.

Keywords: teaching-research nexus, teaching-informed research, teaching-led research, teaching-based research; Teaching Excellence Framework (TEF); Research Excellence Framework (REF)

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## Introduction

The focus of this two-armed project on a teaching<sup>1</sup>-research nexus, or *connection* between teaching and research in higher education was suggested to be very well timed by many who participated in the study, both in the England and Wales, and internationally. The situation seems most consistently to be one *in flux*, and in an *age of reform*. A great deal of interest has been expressed by participants toward reading this report, despite hesitations by some to provide much detailed information themselves. Securing contact with informants proved to be the greatest challenge, due both to a short timeframe for the study that coincided with industrial strike action in England and adverse weather in England and Wales, as well as a certain reluctance and “lack of confidence” from our international contacts in sharing inside information about their own institutions. While original plans to include Scotland and Northern Ireland in the scoping study had to be cancelled due to a failure to secure contacts there, we included nine universities in England, and one in Wales. The international comparative study explored the situation in fourteen countries, categorised into three groups: New World, Europe, and East and Southeast Asia.

The primary focus of the study in the initial stages was to challenge the existence of a nexus, particularly seeking to address the inherent gap in the literature related to the ways that teaching can contribute to research excellence (rather than the other way around; see the *Teaching Excellence Framework* or TEF, and *Research Excellence Framework* or REF), and questions were directed toward probing participants for their thoughts about a teaching-research nexus itself. To help shape this focus, we targeted participants’ personal opinions about institutional policy, management and organisational structures, and the terminology, including main concepts such as *teaching-informed/-based/-led research*.

This paper presents first an integrative literature review with a specific focus on the most recent literature dealing with the teaching-research nexus in higher education, concluding with an identification of the key concerns including our research questions. Each arm of the project is then presented with a description of the methodology used in each arm of the project, and explanations of the data analysis. The report closes with an integrated conclusion for the overall project.

## Literature Review

The literature on a teaching-research nexus in higher education has approached understanding the concept of a nexus emerging from an evolving bifurcation of teaching and research, even challenging the concept of a *uni-versity* itself (see ‘multiversity’ in Kerr 1972). The “blind faith” (see Lloyd 2009) in the idea that teaching and research necessarily complement each other, along the lines of Wilhelm von Humboldt’s ideal of the teacher and student’s common pursuit of knowledge, may be a dwindling faith of the past. In May 2018, a barrister and three academics in Australia published “The Myth of the Teaching-Research Nexus” in the *Legal Education Review* (McKenzie et al. 2018), claiming that, at least in research-led law schools, the nexus no longer exists due to developments of research excellence frameworks, creating “an individualistic, competitive, disunited workplace” (p. 1). This raises the question: How did we get here?

A scan of the literature on the teaching-research nexus in higher education shows development from an assumed bifurcation for several decades (see Neumann, 1992) leading up to challenges of the nexus as “a myth” (e.g. Elton, 2001), the need to go “beyond the nexus” by targeting individual experiences (e.g. Robertson, 2007), or by adding other elements to teaching and research (e.g. Jones, 2013). At this time, efforts to re-conceptualize the nexus (Trowler & Wareheim, 2007), redefine it to “reaffirm the value of

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<sup>1</sup> In our study, we purposefully use the word ‘teaching’ in consideration of the nexus, while in much of the literature the word ‘education’ (referring to learning and teaching) is used. This is to emphasise the focus on the process of developing research *from* teaching, specifically.

teaching” (Ryan, 2016), and operationalize it to recover “a practice of teaching-led research” (Charles, 2018) add further support to the existence of the nexus. However, discussions of “holistic education”, targeting “academic and student experience” in “commerce higher education pedagogy [that] values community engagement” brought “notions of community” (Fernando & McLean, 2010) approached the topic outside the existence of a nexus. Certainly, the debate surrounding a nexus is contentious and complex, thus, in our study, we aimed to critically examine the nexus.

On the idea of “holistic education”, several scholars have explored the changing nature of academic identity as practices grew to reflect international requirements of balancing teaching, research, and ‘service’ (sometimes referred to as ‘leadership and management’, ‘impact’ or similar). For example, Blackmore and Blackwell (2007) contend that “a holistic academic development approach would accept that the balance of activities may well change through an academic career, so that the proportions of research, teaching, knowledge transfer, management and so on might vary markedly. Yet all would be regarded as making a valuable contribution to the academic enterprise” (p. 375). Macfarlane (2010) notes that this “unbundling process” undermines “the holistic nature of professional identity with reward systems encouraging a strategic disengagement from broader elements of occupational responsibility in favour of specialisation” (p.60). The idea of a holistic academic seems to be a threatened one, and yet remains problematic in the literature as a concept, requiring empirical research to identify in what ways holistic approaches are or are not working in developing the professional identities of academics.

The purpose of this integrative literature review addressing both the international and domestic arms of the project is two-fold. Firstly, to provide an update of the literature review conducted in ‘the Nordic review’ by (Mari Elken & Sabine Wollscheid, 2016) and, particularly, to identify issues emerging from the most recent research into the relationship between, and evidence of, teaching and research in higher education. Secondly, the Nordic review notes that, compared to research into the influence of research on teaching, there are relatively few studies into the influence of teaching on research. Arising from this, a literature search was undertaken for studies which contend that there is a direction of influence flowing from teaching to research. The results are presented below, with the post-2016 literature update following an overview of key issues arising from the Nordic review.

#### *Key issues arising from the Nordic review*

Mari Elken and Sabine Wollscheid (2016) provide a valuable review of the relationship between research and education with the aim of identifying indicators for the Norwegian higher education system. The authors include several well-established typologies developed to categorise the work of academics. The typologies generally classify the strength of links between teaching and research. The typologies are noted to address, explicitly or implicitly, the impact of variations in practice on student learning outcomes. Elken and Wollscheid (2016) also make the point that research findings are shaped by the scope of the research focus, with studies tending to centre either on individual actors, higher education institutions or the sector in a national context. The Nordic review draws attention to the proliferation of research-based curricula, inquiry-based pedagogies and the inclusion of taught research methods in undergraduate courses as the most commonly researched manifestation of the influence of research on teaching. They argue, with support from the literature, that introducing a range of research approaches encourages active student participation and a better learning experience for the students from a wide range of backgrounds. This is a stark contrast to past practices where the most academically advanced students were selected for involvement in academic research.

The 2016 Nordic review also notes a tendency of existing research to normalise a connection between teaching and research in higher education. The current review, whilst agreeing, also considers that existing research on the nexus tends to gloss over fundamental questions about the purpose of higher education;

and it tends to acknowledge that teaching and research practices in different countries have evolved historically from specific epistemological origins. And while single qualitative studies may recognise the influence on teaching and research of different disciplines, the career stage, gender, and motivation of academics, and institutional and national characteristics of higher education policy, few construct a nuanced account of their evolving articulation in teaching and education practices within broader national and international historical contexts. This is particularly so with respect to studies of the teaching and research relationship that recognise the contemporary dominance in higher education with evaluation of quality. This idea is well-established in relation to the rankings race (Hazelkorn, 2015) where having a top 100 place in global university rankings and being world class are conflated and, according to Hazelkorn, accepted uncritically. Elsewhere, Charles (2018) observes that a focus on quality may only thinly veil a governmental need for involvement in shaping education in ways which harness it to productivity and capital – both students' and the country's.

Research into academic work is undertaken within this contentious arena and needs to awaken to the articulation of individual academic practices in relation to the broader architecture of the contemporary higher education landscape. This endeavour is supported by taking a critical view of ideas underpinning dominant discourses and trends in the sector and of research in the sector. A brief overview of issues in research published since the Elken and Wollscheid (2016) report serves to establish a basis for this project to consider the nexus as a complex and embedded historical, social practice.

#### *The research-teaching nexus literature: 2016 to 2018*

It may be reasonable to suggest that the fundamental endeavour of higher education is to make a difference to society (Fung, 2017a), but to what extent might this statement resonate beyond the UK in 2017? Tacit societal values vary over time and across countries, reflecting philosophies of education as well as governmental priorities, and contributing to the evolution of dominant social discourses. Tight (2016) outlines three examples, from higher education practice in the UK, Germany and the US, which demonstrate differences derived from thinkers from distinct traditions. According to Tight (2016), Newman, von Humboldt and Kerr have diverse visions of the purpose of university education, with different emphases on teaching and research; these are, respectively, a type of gentleman's finishing school before entering the adult world; an activity requiring academic synthesis by those who currently specialise in a field to pass on the complex knowledge to others; and, in a post-Second World War boom in mass higher education, a system which teaches content to students as well as undertaking research that is relevant in policy and industry as well as in academic fields. According to Tight (2016) there is a tendency in existing research to oversimplify the relationship between teaching and research, particularly in overlooking the practice of academics as shaped by a national architecture of higher education. This is exemplified by the proliferation of a term – *nexus* – which infers an immediacy of relationship that may be at odds with the research and teaching relationship in practice.

Noting that early research examining the nexus tended to be large, quantitative studies, mostly in the US, Tight (2016) suggests their tendency to indicate a lack of correlation between research and teaching prompted a subsequent trend in smaller, qualitative studies; a point also made by Elken and Wollscheid (2016). These authors concur that this primes research to seek evidence of the nexus and, thus, perpetuate a normalisation of the concept. Trowler and Wareham (2007) also make this point whilst criticising this field of research for conceptual weakness, neither clarifying key terminology nor reflecting the complexity of academic work. To address one part of this criticism, we state our concepts of teaching and research. This is followed by a review of the most recent research which identifies some of the influences on contemporary academic practice.

Nurse's (2015) review of research funding councils in the UK states that scientific research is built on principles which include reliability, criticality, and integrity and "produces knowledge that enhances our culture and civilisation and can be used for the public good" (*ibid.*, p2). However, these concepts, arguably, have limited power to invoke the day to day activities of academic work. Without considering the multiple contexts and academic specialisms in which teaching and research are enacted, the concepts are without a context of their own. Acknowledging disciplinary differences as an influence on academic practice is one area where it is important to be specific for a nuanced approach to researching these activities.

Despite the aim of the TEF to measure teaching excellence, teaching in higher education remains an ill-defined concept which, in practice, is influenced by the discipline in which it takes place (Abbas et al, 2016). Very recently, the Royal Academy of Engineers, in arguing for clear evidence to support career progression towards excellence in teaching, has published a framework for which aims to be interdisciplinary and internationally applicable (Graham, 2018). This report offers an insight into those activities which academics employed in HE today consider to be part of the teaching aspect of their work.

#### Academic Discipline

Differences which arise from the specialised, high-level knowledge required for research in different fields were proposed in the *Tribes and Territories* work (Becher & Trowler, 2001). Building on the conceptualisation of variations in disciplinary influences in higher education, different conceptions of teaching excellence across the disciplines (see Abbas, et al. 2016) were found to reflect varied epistemological traditions. In addition, there were variations in the way academics' disciplinary knowledge was conceptualised and related to the value held in society. Furthermore, academics' identities, pedagogic concerns, and range of pedagogic approaches exemplified the complexity of discipline-related teaching activity, as well as the distinct differences between discipline content. The evaluation of teaching carried different emphasis across the disciplines, and Abbas et al. (2016) highlighted the wealth of ways in which this evaluation was being carried out. In particular, they note that the social sciences are "clearly becoming a leading light in researching, analysing and evaluating good teaching." (*ibid.*, p. 43). STEM subjects employed more transmission style methods of teaching, while student-centred pedagogies were found more in the Arts and Social Sciences. Across disciplines, uncertain future employability led to student outcomes focused on 'soft', transferrable skills although, for some courses, such as Health and Education, professional bodies' expectations played a strong role in overriding institutional or academic concerns. In Social Sciences and Arts and Humanities, excellent teaching, the report concludes, is conceived of in relation to the development of criticality in students as well as social responsibility.

The current study focuses on the Humanities and Social Sciences. Abbas et al. (2016) followed the UK Higher Education Academy's 4-strand classification of disciplines, which separates Social Sciences from Humanities that it partners with the Arts. Academic subjects in UK universities do not organise Humanities or Social Sciences subjects identically, and this is sometimes reflected in the research where a faculty-level study is conducted. In the remaining studies contained in this review, where the focus of research does not arise within the Humanities or Social Sciences, the disciplinary base is identified, whilst maintaining a recognition that disciplines are not homogenous in their practice, even within institutions (Trowler 2014). In fact, Trowler's reference to Wittgenstein's notion of family resemblances (*ibid.*, p. 1723) supports a granular appreciation of the influence of disciplines on academic practice, however they are accommodated in a university.

Which practices, embedded in the disciplines of Humanities and Social Sciences, can offer support more widely across academics' practicing in different disciplines? To what extent do academics in the Humanities and Social Sciences reflect on their teaching and research activities in relation to each other? These questions lead to consideration of academic work from practitioners' perspectives.



### Individual perceptions of academic work

The diversification of the activities within the remit of modern higher education establishments (Tight, 2016) consequently means that a research focus only on teaching and research does not account for the full range of activities entailed in academics' work. Some recent research investigates individual perceptions of the teaching-research relationship, illuminating the range of activities that are considered part of modern academic work.

Kivistö, Pekkola, and Lyytinen (2017), investigating the influence of performance-based management on academics' perceived performance, reported the results of a survey of 956 senior academics from multiple disciplines in Finnish universities. Rather than incentives embedded in management structures, academics' motivation was found to be strongest in response to recognition from within the academic community. In Accounting and Finance, research-focused academics were found to place less importance on their teaching work whilst more junior academics saw more merit in teaching activities (Hancock, Marriott, & Duff, 2017).

Research by Cadez, Dimovski, and Zaman Groff (2017), included with an earlier publication date in the Nordic review, presents the results of a cross-discipline study of 620 academic staff in one research-focused Slovenian university. The university is characterised as 'modern' for its incentivization of research output production, as opposed to the quality of the outputs or quality of teaching. The study investigates relationships between research productivity and quality, and teaching quality through a combination of instruments, including publication outputs, number of students, and student surveys. Although a positive correlation is found between quality of research and quality of teaching, productivity does not equate to teaching quality. The quality of full professors' teaching is perceived by students to be worse than academics earlier in their career. The authors suggest this is possibly due to a shift to more active types of student learning required due to changes in performance evaluation mechanisms. Quality in both teaching and research is suggested by the authors to confirm prior studies that find scholars who are motivated to disseminate their research work have high quality ratings in both areas.

A study in a research-intensive university in Ireland found that academics across several disciplines conceived of teaching and research as dynamically interactive (Brennan, Cusack, Delahunt, Kuznesof, & Donnelly, 2017). In total 101 academics were surveyed and semi-structured interviews were conducted with a further twenty-eight. The interview population included nine Professors and nineteen Senior Lecturers and Lecturers. Examples are reported of introducing inquiry-based learning, research projects and research methods at undergraduate level, which will be considered in more detail below. There was also agreement that teaching is enhanced by research by introducing current research, including that in the specialist area of the academic, into taught modules.

These studies suggest that individual conceptions arise as localised meanings constructed in academic activity. However, it is also pertinent to consider how the meanings attributed to the relationship between teaching and research is refracted through structural mechanisms. Academic work is shaped by, *inter alia*, priorities at organisational level, policy shifts and sector-wide proliferation of evaluation instruments, such as the REF, the TEF, and the forthcoming KEF (the Knowledge Exchange Framework), a framework announced in October 2017 designed to compare how effectively universities use public funding to engage with industry and the wider community.

### The influence of organisational structures on academic work

Farcas, Bernardes, and Matos (2017) include a structural dimension in their research when investigating academics' perceptions of practices linking research and teaching in schools, or departments, of Social Science and Humanities courses and their component classes in a Portuguese university. Twenty-six Professors and eight researchers identified integrative individual practices, such as involving undergraduates in research, and organisational structures, such as research centres or research skills embedded in courses,

strengthened the link. Facilitators of a strong relationship were perceived when research activities were recognised to support teaching, when PhD students were integral to academic communities, and, supporting the findings of Cadez et al. (2017), when individuals were perceived to have personal strengths in both activities. Barriers to a close link were perceived to arise, *inter alia*, when there was a non-collegial culture within departments, there was a low number of student contact hours and a research and teaching link was not valued within the institution.

In researching academic performance, Leišytė (2016) argues that the organisational context is a strong factor. A cross-disciplinary survey sought the perceptions of 496 Dutch academics about the effect on the research-teaching balance in the wake of new public management reforms in the Netherlands. Leišytė's report separates teaching and research performance, and time spent on both activities. Findings show a positive correlation between journal publications and time spent on research, and a negative correlation between publications and time spent teaching. In the population surveyed for this study, women did more teaching than men which was reflected in a negative impact on their publication output rates. While it was argued that this had implications for women's promotion prospects, the study also found that this may depend on the type of institution. More managerial universities – referring to establishments that shared characteristics with private sector businesses, such as adopting strategies from management models – had more transparent promotion criteria, reflected in them achieving more equality in measures of gender performance.

The culture within organisations, then, may contribute to an emphasis on certain parts of academics' work, influencing academics' priorities and, therefore, their behaviour. As well as individual and organisational influences on academic practice, some studies, highlighted in the next section, reflect both levels of analysis and link this with a conception of academics' work that is broader than 'teaching' and 'research'.

#### Complexity of academic work

Burke-Smalley, Rau, Neely, and Evans (2017) offer a critical summative overview of existing literature by re-positioning the focus on the 'gap' between teaching and research, and organise the literature to point to micro- and macro-factors that perpetuate this gap. At the micro-level, the literature concentrates on the nature of academic work and individual characteristics. These factors include competing demands on academics' time, and individual research and teaching skills. At the macro-level, the literature focuses on the institutional, cultural and societal domains to explain the gap. These factors include the type of university, echoing the findings of Leišytė (2016), as well as the relative value placed on teaching and research within a research culture, and changes in the expectations of students.

The Nordic review (2016) catalogues a particularly burgeoning area of literature which focuses around the nexus: research-informed teaching. Research-informed teaching, sometimes research-based teaching, adopts strategies which bring research practices and outputs into close connection with teaching. In a paper considering various practices of teaching research methods in undergraduate programmes, Gunn (2017) ends by drawing attention to the importance of distinguishing between pedagogy and epistemology: with *learning and teaching* a discipline on one hand and *learning and practicing* a discipline on the other. This view recognises that knowledge production and the transformation of that knowledge for pedagogical purposes ought not to be conflated, elsewhere articulated as distinguishing between discipline as research and discipline as curriculum (Bernstein, 2000).

The current search did not find any studies which closely examined individual academics' processes for effecting the transformation of specialist knowledge into a pedagogical form, although it is suggested that this might be a most useful illumination of the workings of teaching-research relationship in practice. How do academic experts in a particular field present that knowledge in ways that benefit students? Is this work that occurs to forge a relationship between the two activities, or is more involved? To research teaching and

research in ways that adequately reflect the realities of UK academics' work today, it is important to acknowledge the complexities at play in work that requires practitioners to engage in both these activities.

Inadequacy of the concept of a nexus

There is a school of thought that the teaching-research nexus fails to convey the complexity of modern academic work (Tight, 2016; Trowler & Wareham, 2007); furthermore, that it is not expansive enough to push research knowledge forward in ways to effectively impact upon higher education practices and that a multi-level, holistic approach (one that supports the idea of a 'holistic academic') is better suited to conceptualise academic work (Englund, 2018). In research into 257 Accounting and Finance academics' conceptions of the nexus, Duff and Marriott (2017) challenge the connotations in *nexus* which suggest a close connection. They introduce the notion of the teaching-research *gestalt*. This concept is intended to redraw the interplay of the two practices, and Duff and Marriott identify five, out of eleven, factors in the research-teaching *gestalt* which impede productive relations between the two activities. These negative factors include a recognition of the different attributes of teaching and research, as well as noting that research which is not closely aligned to curriculum impedes a nexus. Furthermore, extrinsic rewards for research (such as "Faculty who seek promotion, publish in academic journals at the expense of other activities" and "Research rather than teaching is rewarded by promotion at my institution") were also found to militate against a productive relationship between teaching and research. Positive factors included the congruence of research activities with students, teaching, curriculum and which perceive research to be an activity which stimulates criticality. The study is important in recognising the push-and-pull of the two activities and raise the importance of challenging the assumption that the practices are, necessarily, complementary. The positive influence of teaching and student-centred academic work is also significant to note in relation to the substantial change in the numbers entering higher education in the post-war decades.

Elsewhere, researchers are engaging in new ways with the concept of scholarship, arising from Boyer's (1990) seminal work. Calling for a change in approach from American universities in response to the massification of higher education, Boyer identified four fundamental aspects of higher education: *discovery* (research as new knowledge); *integration* (synthesis of existing knowledge); *application* (applied research) and *teaching* (pedagogies of learning and research). To refer to a nexus between two activities, therefore, is to risk overlooking the variety and complexity of academic work, and perhaps even Boyer's categories might be inadequate to fully describe the activities of modern academics in the diversified university (Tight, 2016). At the macro-level, evolution of national policies of evaluation and changes in funding allocation mechanisms exert forces felt at the level of practice. In the UK, most notably, the introduction of university student fees in 2012 have had an impact on the way teaching in higher education is conceptualised and practiced there.

The recent emphasis on teaching in UK higher education

According to Booth and Woollacott (2018), Boyer's ideas laid the foundation for the concept of scholarship of teaching and learning (SoTL) which has developed in higher education practice as a means to promote development of academics' pedagogical practice in ways which benefit students. This student-centred approach centralises research-based teaching. It has been suggested that building communities of scholarly enquiry (Carnell & Fung, 2017) has the potential to redefine the traditional role of the academic. In their book, Carnell and Fung include examples of effective implementation of scholarly enquiry practice across disciplines, face-to-face and distance learning, from undergraduate and professional levels, and across several countries. Whereas a community of scholarly inquiry approach may feature lectures as one of a range of teaching activities, introduced to achieve a particular purpose explicitly associated with engaged student learning, a traditional ideology of higher education teaching (Trowler & Wareham, 2007), based on transmission-style teaching, exemplified by the lecture series, is a practice Carnell and Fung describe as an impoverished learning experience.

Carnell and Fung's (2017) work raises important questions about current academic practice that academics may experience as challenges in prioritising their work (Mitten & Ross, 2016). If teaching activities in higher education are to be designed around maximising student learning, what impact does this have on the teaching activity of an academic? Furthermore, how does an academic's specialist research articulate this kind of teaching practice? How wide-spread is this approach in practice in UK higher education institutions, and internationally? How do different universities introduce it? Is it more likely to be found in universities where strength in teaching is valued? Are specialist Teaching Fellows employed to deliver student-centred courses?

SoTL researchers may consider the focus on academics' teaching to be a means of driving reflection on practice with the aim of improving it; and an activity characterised by discipline-specific approaches to reflective, research-based practice, and engaged and active students (Fanghanel et al., 2016). However, confusion about the relative status of pedagogic research and SoTL in UK higher education evaluation (Cotton, Miller, & Kneale, 2017) does nothing to mitigate concerns about the motives for raising the profile of teaching in a sector that values research more highly. In line with UK government strategy to ostensibly raise the profile of teaching from its position as the poor-relation of research, the increased emphasis on the quality of university teaching connects with wider social trends in the sector. Global rankings of institutional performance support the internationalisation of higher education and the marketization of the sector (Hazelkorn, 2015) where governmentality can facilitate a neoliberal agenda by shaping societal problems and requiring them to be addressed (Brady, 2016). In higher education, contemporary questions are dominated by the practice of evaluation of quality: of teaching and of research.

The purpose of higher education comes once more into focus. Fung (2017a, 2017b) argues that scholarship is a concept that rises beyond teaching and research practices to inform broader debate about the nature, purpose and values of higher education that is directed towards students' education. While the TEF in England focuses evaluation on individual student opportunities in a competitive and globalised job market, Fung presents a view of higher education as a collective enterprise of supporting young people in becoming human, with research as a public good, and the outcomes of research and teaching contributing to the world. This is a vision of academic work which is holistic (Fung, 2017a) and, rather than being determinedly individualistic, functions by connecting people's strengths to strengthen the whole, and is decidedly relational (Booth & Woollacott, 2018). This view is somewhat removed from others who envisage the TEF as a performance management instrument (Rudd, 2017) and its proximity to the lived experience of the modern academic would be worthwhile to gauge. But the holistic academic view does consider the *why* regarding academic practices, rather than the *what* or the *who*, as considered earlier in the complexity of academic work.

#### Teaching-informed research

Brennan et al. (2017) in their study based in a research-intensive Irish university provided an example of a senior academic describing how his contact with students regularly challenged his thinking and brought about new research ideas. Few studies seem to consider the relationship of teaching and research in this direction. Harland (2016), while asserting that considering teaching an essential element of research in today's universities is unthinkable, revisits von Humboldt's vision of the modern university, with benefits to both academics and students from being in the same place and studying the same subjects. Harland proposes that a higher education model of teaching-led research would have beneficial learning outcomes for students and teachers.

With respect to the benefits to both parties, a paper describing how a research team utilised a field trip teaching event to gather data, noted that researchers quickly and cheaply collected data and the undergraduate students gained insight into the research process: "complex teaching events may benefit

from highlighting the research opportunity for fast-tracked data acquisition and the resource advantage of student data-gatherers” (Casanovas-Rubio, Ahearn, Ramos, & Popo-Ola, 2016, p. 116).

The focus on speeding up the research process is somewhat concerning, putting pressure on junior researchers to produce outcomes quickly, and potentially leading to cases of researcher misconduct (see e.g., the cases of Haruko Obokata in 2014 and Shinya Yamanaka’s research team at Kyoto University in 2018). It would be hoped that measures exist to protect students from exploitation. This may reflect the shaping of research practice which Hazelkorn (2015) argues, as noted above, result from national and international forces of marketization of higher education. Charles (2018) takes this point further by arguing that state intervention in evaluating quality in higher education, of both research and teaching, are inextricably linked to a politics of ever-increasing productivity for capital gain. Whilst considering that academic work requires researchers that teach and teachers that research, he notes that the uptake in research-informed teaching may play to the advantage of elite universities, and urges some consideration of the flow being directed differently. He argues for forms of teaching-led, teaching-informed or teaching-based research to be used to intervene critically with the dominant discourse of excellence and research-based teaching. A new imagining of a teaching-research nexus, he contends, that closely examines the relationship between knowledge production and the contributions made by that knowledge, can be centred on the central problem of the Teaching Excellence Framework: that it is not a measure of teaching quality.

#### *Summary and Research Questions*

In summary, recent research, although still largely tending to normalise the existence of a connection between academic research and teaching activities, is beginning to recognise that a range of factors, extending beyond these two activities, as well as contextual influences extending from the individual to the national, are brought to bear on academic practice. A teaching-research gestalt (Duff & Marriott, 2017) conceptualisation avoids the limitations of existing research which limits consideration to two facets of academic practice, and accommodates a range of ideas which are broad enough to better reflect the realities of academic work.

The review of literature, along with the project objectives established by the British Academy, leads us to the following four research questions:

1. What issues are arising from recent trends in international higher education policy relating to teaching and research?
2. How do these issues manifest in global higher education?
3. How do these issues play out in British universities?
  - a. In organisations?
  - b. In practice?
4. How is the relationship between teaching and research conceptualized in the Humanities and Social Sciences in British higher education and how is this related to the practice of academic work?

#### **Project arm one: Scoping study (England and Wales)**

The UK higher education system has been world-leading in development of policies which evaluate university performance in an era of dwindling public finance. In the domestic arm of the project, a scoping study was conducted with universities in England and Wales. First, a synopsis of the higher education landscape in England and Wales is provided. This is followed by a detailed methodology section, with general information on the participating universities through which senior managers were interviewed, and demographic data on the academic staff at those universities who completed the questionnaire. The findings and analysis section then follows, bringing together the data from the interviews and questionnaire to

explore emerging themes. We then take a closer look at the interpretations of a possible teaching-research nexus before moving to the discussion.

### *Higher Education Landscape of England and Wales*

The UK government first linked university research performance to funding allocation, with the first assessment carried out in 1986. In 1992, when polytechnics were granted university status, the driver of the assessment began to evolve, incorporating an element of quality assurance which, McNay (2015) argues, shapes an outcome different to that intended. The current exercise, named the Research Excellence Framework (REF), which is in its second iteration, has attracted criticism summarised by Butler and Spoelstra (2014) by pointing out that its impact on academic research activity has given rise to a 'regime' of excellence which orientates researchers to work towards REF criteria and impinges on the direction of their academic inquiry.

The timing and names of the exercise and the administrators of the exercise changed over the years. The various bodies and research assessment activity names are summarised in Table 1. However, the purpose is constant: to use measures of research performance as a rationale for distributing the limited resources for higher education state funding.

1986	Research selectivity exercise	Universities Grants Committee (created in 1918)
1989		Universities Funding Council
1992, 1996, 2001, 2008	Research assessment exercise	Higher Education Funding Council for England (HEFCE)
2014	Research excellence framework	
next 2021		Research England

*Table 1: The evolution of assessment of university research performance*

In 2018, all UK research funding councils were merged to form United Kingdom Research and Innovation (UKRI) and tasked with the responsibility of distributing funding amongst UK higher education institutions engaged in research. In UKRI, there are commonalities with trends evident in international policy; for example, encouraging competition for research funding, and streamlining the areas of research to tie in with targets linking research with business-led national policies designed to promote economic growth. A forthcoming 'framework' which is tugging at universities' attention in new ways is the previously mentioned Knowledge Exchange Framework (KEF), announced in October 2017, which is tied to UKRI calls which are closely aligned with the government's Industrial Strategy.

A further element of university performance assessment was introduced in the form of the also previously mentioned annual Teaching Excellence Framework (TEF). Initially trialled in 2016, the TEF publicly reports statistics on retention or continuation of undergraduate students, employment of graduates and a national student satisfaction survey for each participating university. In awarding universities bronze, silver or gold status in recognition of successive teaching excellence levels, the TEF serves as a proxy assessment of undergraduate teaching quality.

Government plans to link TEF ratings to higher education funding remain in a period of ambiguity, but there is increasing pressure on universities to recognise its influence. From August 2019, institutions must be registered with the Office for Students, a regulatory and competition authority established in April 2018, it has non-research funding powers, and participation in the TEF is a requirement of registration. The TEF has

received criticism for being unlikely to achieve its stated aim of putting teaching at the heart of higher education, choosing to focus on "the development of skills ... at the expense of the wider social purposes and benefits of undergraduate education" (Forstenzer, 2016, p. 4). The TEF is currently in its third iteration.

The current UK higher education landscape is, quite clearly, in a process of considerable upheaval, with a bifurcation at the national level of bodies with responsibility for evaluating the teaching and research work of universities, as well as additional pull from business, employers, and students. At such a time of change and in relation to arguably competing requirements demanded by the REF and the TEF, the British Academy is interested in how UK universities manage teaching and research at institutional level and, with particular reference to the humanities and social sciences, whether, or how, the systemic schism then plays out in the practice of academics' teaching and research.

### *Methodology*

The initial scoping exercise was informed by an integrative literature review of research into the teaching-research relationship in higher education. A national survey of England and Wales was then undertaken, using semi-structured interviews with university senior managers, and an online questionnaire with over 200 academic staff in the target universities<sup>2</sup>, to collect the perceptions of academic staff at ten UK universities. Scotland and Northern Ireland were not included as we were unable to secure contacts in universities there, and it was agreed that the selection of universities in England and Wales would provide a focused analysis, leaving out conditions that differ, such as funding, in Scotland and Northern Ireland. Nine of the ten interviews with senior managers were audio recorded and transcribed, and the transcriptions were checked and approved by the interviewees. One interview was not recorded by request of the interviewee, and notes were taken, checked and approved by the interviewee. The invitation to complete the questionnaire was sent out first by a key contact person at each target university. The project team also extracted publicly available email addresses for HSS academic staff at the universities, and sent reminder, follow up emails using those lists. The project information sheet, consent form, and questionnaire can be found in the appendix. The total sample from the questionnaire data is 213 respondents (Table 2).

University	University type by strength	Region	Number of responses
1	Teaching	Central	13
2	Teaching and research	West	27
3	Research	Wales	40
4	Teaching and research	South	32
5	Teaching	West	16
6	Teaching and research	North West	14
7	Teaching and research	North East	22
8	Research	Central	20
9	Teaching	North East	11

<sup>2</sup> Ethical clearance was provided by the University of Bath's Social Sciences Ethics Committee

10	Research	London & South East	18
	<b>TOTAL</b>		<b>213</b>

Table 2: Questionnaire response numbers by university

N.B. 4 of 217 completed questionnaire responses were excluded as outside H&SS or sample universities

A nationwide geographical spread was the primary selection criteria for inclusion of universities. The next criteria focused on including universities with differences in their strengths in teaching and research. The Complete University Guide, most recently published in 2018, ranks universities by collating multiple data bases, including the 2014 REF results and the 2017 National Student Satisfaction (NSS) survey results. Universities' "scores" in the Complete University Guide were used to indicate sample universities' strength in research and as a proxy indicator of sample universities' strength in teaching. Together, these helped identify three categories of higher education institution:

Research intensive – where universities scored higher in research than teaching

Teaching intensive – where universities scored higher in teaching than research

Strong in both – where universities scores for teaching and research were both high

To avoid the suggestion that a strength in one area implies weakness in the other, we adopted descriptive terminology to arrive at our final three categories:

- Teaching-strong (T+)
- Research-strong (R+)
- Strengths in teaching *and* research (T = R)

Given the nature of the study, this categorisation is a necessary abstraction. However, we understand that academics often tend to identify quite strongly with their departments or subject-areas rather than the institution, and that there is often a great deal of autonomy and therefore difference in terms of practice within departments: some of the respondents might be based in institutions classified by the report as teaching-strong but within departments or subject-areas that are actually research-strong or at least strong in both, which might have implications for their perceptions of the nexus not captured in the report. This kind of detailed, qualitative analysis is beyond the scope of the report but we flag it here in an effort to avoid being too reductive in terms of the diversity and excellence of research going on in specialized areas beyond the mainstream research universities themselves.

Project time constraints necessitated strategic use of professional networks, aiming to secure a good uptake of participants in both data gathering activities aiming to address the third research question.

How do issues arising from trends in higher education play out in British universities:

a) institutionally? **Interviews with senior managers** at each of the sample universities were considered useful to give an overview of structural and organisational responses to management of teaching and research which could then be compared across universities with strengths in different areas.

b) in practice? An **online-survey of practicing academics** working in the Humanities and Social Sciences was designed to collect their perceptions of how they managed teaching and research in their work and was distributed in the sample universities. There was the option of then comparing practice across universities with strengths in different areas.



The aim was for the survey to be completed by a representative sample of academic staff by gender and seniority. Identifying by gender was optional. Seniority was categorised in three stages: early-career (0-5 years in post), mid-career (5-15 years in post) and senior (16+ years in post). Table 3 shows the breakdown of data collected.

University type:	Teaching = 40 Teaching and research = 95 Research = 78
Discipline:	Humanities = 61 Social sciences = 152
Gender:	Female = 106 Male = 90 Prefer not to say = 17
Career stage:	Temporary contract = 31 Early career = 60 Mid-career = 67 Late-career = 55
Contract type:	Teaching only = 21 Both teaching and research = 176 Research only = 16

Table 3: Questionnaire responses by university type, discipline, gender, career stage, and contract type

The data for this project support a critical exploration of the higher education architecture shaping the relationship between teaching and research in England and Wales today. The methodology used to analyse data was qualitative text analysis (Kuckartz 2014), following the lines of qualitative content analysis (Mayring 2000). Through this analysis, data coding was done through a thematic text analysis (Kuckartz 2014), combining concept-driven and data-driven categories (Schreier 2014). This methodology is typical of qualitative content analysis (see Schreier 2014), and through it, we developed a coding frame based around central themes. The themes were put through a system of trial within the data, evaluation, and modification as new themes emerged. There were two stages of main coding: the first was used to code broadly and get central themes established, and in the second stage coding and categorization were refined. This detailed analysis gave a contextualized overview of how a teaching-research nexus was being interpreted and realised by the participant universities. The emerging themes were coded as follows: structures, purposes, and interpretations, outlined in the Findings and Analysis section for the scoping project.

#### *Findings and Analysis*

From the issues arising out of the international policy scan and the subsequent consideration of those shaping the landscape in British higher education, clearly there are higher education policies which, because of their separation of academic activity, have the effect of pulling in different directions. The strength of these claims can vary when these agendas are tied to funding higher education activity.

In response to the arguably competing requirements of higher education activity, we sought to examine how teaching and research were being managed in British universities. We approached this task at the individual level, firstly, through an examination of managerial practices and organisational structures within universities; and, secondly, by examining individual academics' perceptions of the relationship between teaching and research in their daily academic practices.

Analysis showed, almost immediately, institutional variations in understanding the teaching-research relationship. For example, the four teaching-research balanced universities had senior managers who were

strong advocates of the closeness of the two activities in academic practice. However, there was awareness expressed by many senior managers of an historical skew in favour of research strength. This led managers at research-strong universities to comment on research-track careers, or individuals who were perceived as *'rain-makers'* who, presumably bring in torrents of funding. While not being openly critical, one senior manager in a research-strong university wondered how this focus felt to those academics on *'the other side'*. He remarked that, in his institution, academics could be pigeon-holed as suited to administrative roles if their grant income dried up or was not substantial. In a teaching-strong university, one senior manager said that although some universities may hold a *'more traditional'* perception *'that teaching is just a distraction from research'* his staff felt *'a moral duty to our students'*.

The question of how teaching and research activities affect students was not part of our remit but was raised by some participants. The idea that students value lecturers who are working at the frontiers of knowledge was noted by some senior managers. However, the practice of using research income to 'buy' research specialists out of teaching contradicts this idea somewhat and jeopardises a close relationship between teaching and research when, for instance a lecturer has to come in and teach a researcher's module, or when a teaching fellow or post-graduate is contracted to deliver the teaching. In terms of assessing the effects of competing requirements of national evaluations, the implication on student experience is evident when the quality of either teaching or research is compromised.

The initial sense was that the concept of a nexus was contested in academic practice in ways which had potentially serious implications to the quality of academic work and which reflected various views of the purpose of higher education. To explore the contestations further we concentrated on two main areas within the sample universities:

- Interpretation – where respondents expressed their understanding of the relationship between teaching and research in institutions and in individual academic practice.
- Structures – where we examined ways sample universities were responding to the arguably competing requirements for excellence in both teaching and research.

This analysis is framed by an overview of how the purpose of higher education activity was expressed by, firstly, senior managers and, secondly, academics working in our sample universities. This is followed by an analysis of the findings at the institutional level.

The purpose of higher education: senior managers

Responses from senior managers conveyed, implicitly or explicitly, the ways in which the purpose of higher education was realised within their institution. These views were often informed by published documents. For instance, the organisation's mission statement or values on the website were referred to in decision-making by managers within the institutions and informed documents such as corporate strategies, reaching ahead to 2020 or beyond. It was not uncommon for these documents to be available in-house and to be a point of reference for staff applying for promotion, for increases in staffing allocation, or for proposals for new teaching modules.

By way of understanding the overarching institutional and individual motivations for teaching and research, interview and questionnaire data was coded to explore how institutions and individuals perceived priorities of academic work in relation to teaching and research.

Interviews were coded using Trowler and Wareham's (2007) typology of higher education activity in which universities are characterised in four ways. In terms of the teaching and research relationship we interpreted these as motivated, broadly by:

- (i) Accountability
- (ii) Developing citizenship
- (iii) Enterprise
- (iv) Being challenging and critical

Coding senior manager transcripts using these four categories sought to establish whether universities in our sample with different strengths varied in the way they articulated the purpose of higher education activity.

### **(i) Accountability**

Examples of universities' drive to do well in the REF and the TEF were common across all university types in the sample, although only one university referred to the KEF. When the managers at that university did so, it was with the assumption that it would become another way for central government to make funding allocation decisions. All the sample universities perceived research and teaching in relation to performance in national evaluations. Some universities had a focus on research-excellence as judged by research income, or by numbers of staff returned in the last REF. This is, perhaps, unsurprising given the importance of the REF in securing funding and the proximity of the next REF deadline.

Research-strong universities particularly concentrated on rankings which relied upon performance evaluation results. Teaching-strong universities acknowledged the place of 'metrics' to back up reputations of excellence in teaching and research. It was notable that a teaching-research balanced university had experienced 'bloodshed' prior to the last REF when staff who were not REF-returnable were 'leant upon' to leave.

It can be concluded that all types of university had a strong focus on accountability which shaped perceptions and priorities of academic activity.

### **(ii) Developing citizenship**

Two universities specifically identified the development of young people as citizens to be one of the purposes of their higher education. One research-teaching balanced university senior manager explained this in terms of her university's values. Using the example of ambition, she said that, while this was interpreted as 'global reach' in research terms, for teaching, this meant supporting students towards becoming thoughtful citizens of the future. The focus on the responsibility of academics in shaping future citizens was echoed in two teaching-strong universities where senior managers saw development of students' citizenship as a key outcome of a university education.

Development of citizenship was not expressed in interviews with any senior managers at research-strong universities in our sample.

### **(iii) Enterprise**

Enterprise was explicitly communicated in all three teaching-strong universities in our sample: in one, it was one of the core values and was at the forefront of the corporate strategy for two others. One of the research-strong universities explained how there was a centre for commercial dissemination of ideas and competitions for students to be involved in commercial spin-outs. This was framed in terms of the high regard with which this centre was held in by industry. A teaching-research balanced university said the industrial strategy connected with marketability of ideas and meant '*finding the edge in everything we do*'.

Enterprise was expressed as part of the purpose of higher education activity in all types of universities in our sample though, most consistently, amongst the teaching-strong universities. It could be that, when research-funding is highly competitive, teaching-strong universities have been adept in identifying opportunities for financial gains this way.

### **(iv) Being challenging and critical**

Most managers stressed the point that a university education has a distinct purpose, characterised by the nature of the relationship between teaching and research. Three of the four balanced universities saw challenge and criticality to relate both to academics and to students. One manager in a research-teaching balanced university said that universities have, as one purpose, the generation of new knowledge, and to disseminate that knowledge which, in his view, meant teaching cutting edge research to students. In another balanced university, the senior manager identified the development of critical students as central to its purpose while a third balanced university saw the generation of research for social benefits and improvement of knowledge in relation to both teaching and research. In a teaching-strong university, a senior manager explained that research environment was a key difference between a university education and an education students could get in a further education college, and was influential for students' choices on how to progress after A-level.

One senior manager at a teaching-strong university understood a research environment as intellectually challenging in ways which benefited students while balanced universities applied these ideas to staff and to students.

The purpose of higher education: academic staff

The purpose of higher education was approached at individual level as pertinent to their motivation to do the work. It was here at the individual level especially that the complexity of academic work was in focus, particularly where demands on practices seem to threaten a holistic academic identity. When academics across the universities were asked about the main motivation for their academic work, we see a difference between those at teaching-strong universities on one hand, and balanced and research-strong universities on the other.

At teaching-strong universities, there is a clear emphasis among staff for teaching and the welfare of students. One early career academic at a teaching strong university commented:

*Despite my new teaching/research contract, I am finding it something of a challenge to kick the pedagogical habit and do spend most of my time thinking about, planning and worrying about teaching.*

This focus on teaching and student welfare was seen across all career stages. For example, one mid-career academic saw the motivation for their work for students to gain meaningful employment. However, it is important to note that the focus on student welfare was not seen as something that was always reflected in the university purpose, with another mid-career at a teaching-strong university commenting that:

*Sadly, the students as well as academic staff seem to be low priorities for management' with 'a new agenda that is impacting on [their] time is marketing and business enterprise.*

At research-strong and balanced universities, there was a mix of responses including those who are motivated by the research aspect of their work, some teaching and many who associated the two as interlinked:

*The field I work in helps people. I enjoy doing impactful research, and teaching other people in a way that encourages them to pursue similar interests. (late career, balanced university)*

Personal fulfilment for the role was also a key motivator across balanced and research-strong universities. For example, one late-career academic at a balanced university commented that their main motivation is 'Fun. Being able to follow my interests. What could be better?' Those at balanced universities particularly though talked about the structures that impacted on this fulfilment:

*It is the most interesting job you can have and also allows a great deal of personal autonomy, despite the constraints of REF/TEF, student evaluations, targets etc. (late career, balanced university)*

We return to the implications of working under these competing requirements later in the report.

#### Summary of findings about the purpose of higher education

Understanding about the purpose of higher education is a clear influence which, across the sample institutions, leads to different priorities that shape the way academic work is managed and perceived. The demands of accountability instruments features strongly across all university types, and for both managers and academics. Similarly, challenges and criticality were evident across all participants and university types although, interestingly, these aspects were applied primarily to research activity in research-strong universities, to both staff and students in balanced universities and to students in one of the teaching-strong universities.

There is some divergence between managers' and academics' perceptions of the purpose of higher education. The influence of enterprise is much clearer in managers' responses than in academics', and, notably, there is apparent discrepancy relating to the development of students, expressed as citizenship development in the Trowler and Wareham (2007) typology. Whereas concerns about students feature clearly as a motivation for academics, and balanced and teaching-strong universities were clearly articulating the purpose in relation to students, this narrative was not overt in the research-strong university managers' interviews.

Clearly, the interpretation of teaching and research are influenced by institutional priorities, and so we now turn to consider how the relationship is interpreted.

#### *Interpretation of the relationship between teaching and research*

Across university and contract types, academics are engaged in a wide range of teaching and research activities (Table 4). All respondents, including those on research and teaching only contracts, chose at least one teaching and research activity from the list provided. In the current academic year, more than four in five academics have undertaken the following teaching or research activities: face to face teaching (92.9%), teaching preparation (92.5%), designing new materials (89.7%), summative assessment (86.9%) and formative assessment (80.3%). Regarding research, more than nine in ten academics (91.5%) are engaged in both developing new ideas and writing. Five items were included in the survey as options for both teaching and research. It is clear from Table 4 that supervision and keeping up to date with current research are understood as both teaching and research activities.

Activities	Teaching	Research
Face to face teaching	198	
Online teaching	81	
Preparation	197	
Designing new materials	191	
Formative assessment	171	
Summative assessment	185	
Supervision of dissertations on taught programmes	170	188
Supervision of postdoctoral (or) research students*	103	87

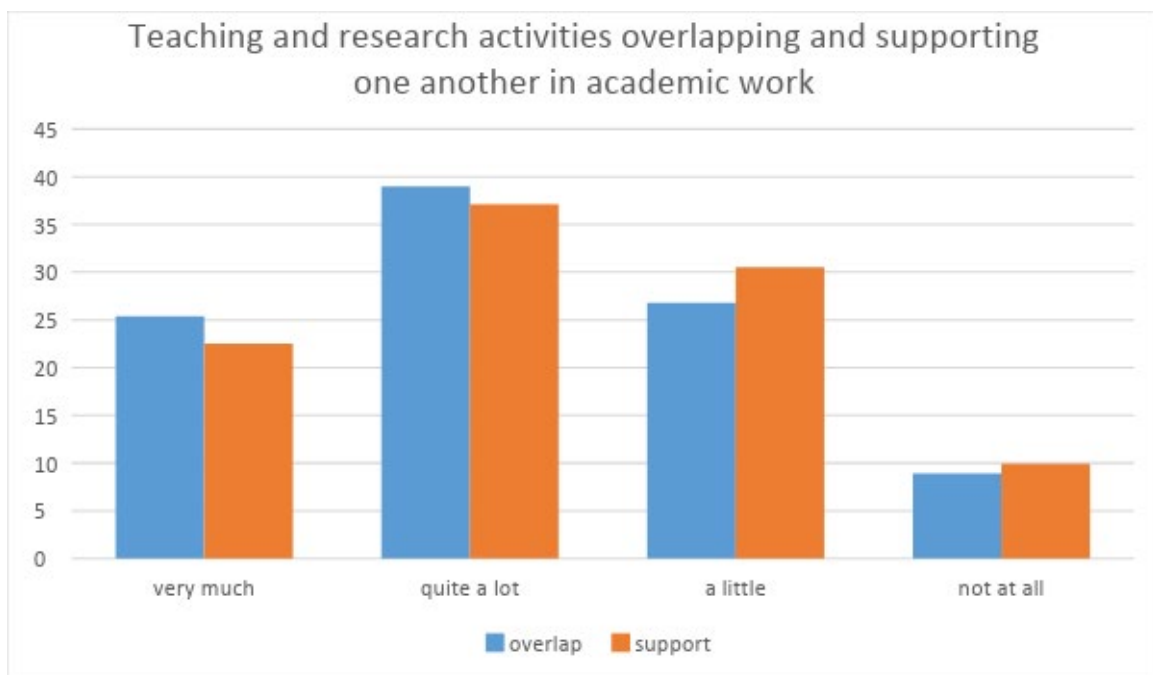
Keeping up to date with current research	180	203
Conference attendance	103	182
Public engagement	97	133
Developing new ideas		195
Writing and publishing		195
Working on unfunded research projects		166
Working on funded research projects		141
Applying for funded research projects		151

Table 4: Activities of academic staff

\*this result is invalid as the questionnaire inadvertently omitted the word 'or'

While all academics are engaged in both teaching and research activities of some kind, there is a clear range in opinion regarding how far research and teaching activities both overlap and support one another in academics' work (Figure 1). The vast majority state that they overlap (91.1%) and support (90.1%) at least a little. This is slightly higher for those on dual contracts (93.75% for both overlap and support).

Figure 1 Academics' perceptions of integration of teaching and research



While it is clear from the quantitative responses that there is perceived integration of teaching and research, coding of the ways that academics across the humanities and social sciences expressed this integration of teaching and research in their academic work could be categorised into three main categories:

- those **unquestioning** about the integration,
- those that think it exists but are **questioning** its usefulness, and
- those that are **doubtful** about its existence beyond superficiality.

Academics' perception of the integration of teaching and research

Those that unquestionably saw an integration between teaching and research talked about a close connection between the two activities, and understood a symbiosis where one nurtures the other:

*For me they are always connected. I have been thinking about a very new research topic recently and have designed a third-year module according so that I can study it at the same time as teaching students. In fact, I am hoping that students will open up new avenues of research.*

This appeared to be particularly the case when academics could bring their research into their teaching practice and so the relevance of one makes the task of managing the two activities less challenging.

*Teaching makes me a better researcher just as much as researching makes me a better teacher. Both elements complement themselves. (early career, balanced)*

*Teaching and research inseparable. I look at colleagues who aren't research active and I wonder how they manage to teach on these topics - if I teach on a topic that I haven't thoroughly researched and written on, I'd just feel like I'm blundering through a week ahead of my students! (early career, teaching strong)*

Significantly here, these responses show academics who understood teaching and research to be concordant, that is, pulling in the same direction, working together in ways which were beneficial to the quality of both activities:

*My research informs my teaching significantly. Particularly with dissertation students, I'm not just 'supervising', I'm co-researching and this IS teaching. Exposing students to a research culture is LITERALLY my teaching approach.*

### **Exists but needs questioning**

While most respondents chose to address questions about the nexus directly, without questioning the nexus itself, there were some important instances where the nexus was challenged as an adequate concept, or as something that should be a goal in higher education.

*One should inform the other, but this appears to be increasingly difficult. (mid-career, research strong)*

*The questioning of the nexus is often when academics think that the relationship depends on teaching their own area of expertise: They are connected of course but in an ideal world I would be able to teach on topics that I research in - at my institution and in my research group, I think I'll have to wait for someone to retire in order to take on courses more closely related to my research. (early career, research strong)*

This association of the nexus only existing in relation to the content of teaching was also expressed by a mid-career academic at a different research strong institution:

*There is so much core teaching to do that there is very limited scope for more specialist modules within my area, even though my area is actually fairly fundamental to the discipline! So although there is a little overlap between teaching and research it is disappointingly in the minority and this includes postgraduate teaching.*

At these research-strong universities, many academics referred to the increasing pressures of teaching in relation to the TEF and increasing student numbers. This may explain the emphasis placed here on questioning the direct relationship between teaching and research given a wider context of increased teaching workloads.

## Doubtful

There was a minority of academics who thought that the integration within their academic work was superficial, at best. It is notable that the perceived increase in the teaching workload is again referenced at a research-strong institution:

*Sadly, if this ever was routinely the case, I do not think it is now. The numbers of students are so great and the staff numbers too few that we all have to do a lot of teaching, which translates into a lot of teaching which is not related in any way to my research area. (early career, research strong)*

However, we also see similar responses from those at balanced universities where as one early career academic notes teaching and research 'are rather distinct parts of the job function'. Here, where the two are not seen to overlap, we see evidence of a gap emerging between the two:

*For me personally, they don't interact. When the majority of my teaching was initial and in-service teacher education, research activity was in that area as well. I still think that teaching should be research-led or at least research informed but in my case things have developed differently over the years with a clear gap between teaching and research. (late career, balanced university)*

The concept of a nexus here then is not seen as helpful in academic work. For now, these academics highlighted the gap, however, in relation to discussion of the structures of the university, we begin to see a picture of a discord, where research and teaching are not mutually supportive and may even undermine the quality of academic practice in either or both activities. We return to this later in the report.

Unprompted, most responses about the relationship between teaching and research focused on how research influences teaching. However, when asked about the ways that teaching may impact on research, we also see evidence of the unquestioned connection:

*I find if I am writing up my research, and try out the reporting of findings with my undergraduates, then it improves my articulation of my research in papers and reports. From time-to-time students do come up with questions or even insights that can inform my research, in particular shed light on analysis. They can also give ideas for a new focus for research. Colleagues and I have taken on students as undergraduate research assistants as part of their optional employability modules. (late career, teaching strong)*

*They are connected in many ways. They can reinforce each other in the ways already articulated in previous questions. I believe that a good researcher also makes a good teacher because of a good researcher's ability to know the literature and organize and explain key concepts clearly and succinctly. Researchers need to do this in order to articulate research questions and give cogent research presentations. Teachers also need to be able to do it to make material clearly engaging, while also comprehensible. Good teaching and good research reinforce each other in this manner. (mid-career, research strong)*

However, there are also many examples, particularly at the balanced universities, of academics questioning the positive and mutually reciprocal nature of this relationship:

*Research frequently informs teaching and is a very useful platform for teaching. It rarely works the other way though. (mid-career, balanced university)*

*The process of producing teaching materials, organising one's thoughts in relation to transferable features of a given text or issue often produces insights and drives research interests. By teaching outside of your comfort area, you are forced into contact with texts, contexts, and issues that may not otherwise occur to you. But, again, when this is the only teaching available to you, the cost-benefit calculation is markedly unbalanced. (temporary, balanced university)*



It is important to note that the responses to the impact of teaching on research were at an almost entirely individual level. In the following quote, we can see one example of an early career academic at a balanced university. Here, the academic uses the word 'me' or 'my' eight times:

*Teaching challenges me and forces me to refine my ideas - I think that it has improved my skills as both a writer and an analyst. Sometimes, writing new lectures or updating them forces me to pursue avenues of inquiry I might have neglected otherwise. This in turn can give me a fresh perspective on my research area.*

Therefore, there is a great deal of evidence that the teaching-research nexus is a widely understood term amongst our respondents. It is also clear that for respondents of all university types that the integration of teaching and research plays out in different ways for different academics in their daily academic lives. This challenges the assumption of a nexus which neatly manifests through a complementary relationship between teaching and research in academic work, along the lines of a holistic academic development approach.

Managers' perceptions of the integration between teaching and research

In most interviews with senior managers, there were moments in which they did not question the existence of a nexus, referring to examples of successful university structures that supported a strong nexus of teaching and research, and/or highlighted efforts being made toward improving such a nexus. However, the most dominant of three attitudes to the relationship between teaching and research was the *questioning* the helpfulness of the nexus. Six of the ten sample universities, all three research-strong, two of the four balanced universities, and one teaching-strong explicitly raised questions about the conceptualization of the nexus as a neat relationship:

*Maybe we have gone beyond it? But I was thinking that means we need to redefine that word, we need to, well revitalize it...making it something we actually, physically recognize. (senior manager, balanced university)*

Later in the interview, she challenged the nexus as a concept failing to address cost effectiveness of higher education as a motive for students to participate in the wider monetary landscape. The nexus was also challenged as something that should or should not be a goal in higher education. One response from a senior manager at a balanced university challenged the discussion of the nexus, interpreting it as 'research-led teaching', questioning its relevance today:

*I was recently wondering whether or not we have moved beyond the age of research-led teaching, and so maybe it's actually okay for us to not even talk about it anymore. I'm not saying that as a good thing but I was wondering perhaps as the government itself and universities that follow, we increasingly focus on employability...*

This senior manager went on to describe a changing landscape in higher education that no longer reflects the concerns universities once had of connecting teaching and research, expressing belief that while this particular university does not champion a nexus in its structures, it does provide some examples of effective integration of teaching and research.

Senior managers at all three research-strong universities initially described a strong nexus in their institutions, but then all shifted toward questioning the nexus. The questioning targeted the concept of the nexus as something context-specific (unique to the institution where it occurs, and therefore non-transferable), as well as value of a nexus in effectively supporting higher education. For example, one described the ethos of the university that other universities would struggle to maintain:

*Really good teaching is very much embedded in ethos and ethos has to be supported by resources, by staff having enough time, enough accountability, enough sense of their own responsibility towards*

*their students, enough personal familiarity with their students. So these universities that have over-expanded as many have who are teaching in larger groups, more increasingly, struggle to maintain that ethos even though it's what some of them would like to.*

But despite this ethos maintaining a good teaching-research nexus, this senior manager also described the university of having a number of research-only contracts but not many teaching-only contracts as a critique of the nexus, referring to other universities that focus on teaching:

*I think most universities who have been down the road of teaching-only contracts started off sceptical but then they found they have got this cadre of people with time, energy and expertise, who can bring an awful lot of positive things to their universities.*

This was an important issue for this senior manager, in that while a balanced nexus seemed to be understood at the university, it was a focus on teaching and teaching leadership that made stronger academics.

Regarding questions concerned with whether the concept of the nexus is unique to the institution where it occurs, and therefore non-generalizable across different institutions, this raised the quality question: What is the value of the conception of a nexus in effectively supporting excellent teaching and research in higher education?

From a manager's point of view, this raises questions about how to prioritise limited resources, and is illustrated by financial decision-making that affect teaching, and teaching staff, and research, and research staff.

The universities seemed to take advantage of a '**nexus rhetoric**' to present risks to the relationships between teaching and research through undermining one at the expense of the other. In one teaching-strong university, a senior manager commented that, at faculty-level, there is growing emphasis of quality teaching is influenced by increased reliance on funding from by tuition fees:

*The tuition fees account for 90% of our income in our school, and it's not going to be substantially different in any other institution I would have thought; in which case you can't afford not to take it seriously. But I think very much to my colleagues' credit, again this paints a traditional picture and that probably still exists in some institutions, this idea that teaching is just a distraction from the research. Actually nobody in my school, I can say that with some certainty, actually believes that. Everybody understands that not just the teaching pays the salary but also that we have a moral duty to our students.*

In a teaching-research balanced university aiming for 'parity of esteem' between the two activities, appointments were made on 'balanced scorecards' with an implication of value for money underlying this turn in management practice.

Amongst senior managers, it can clearly be seen that there is questioning of the concept of the neat and tidy nexus which, thus, presents a diverse picture of how both academics and managers articulate and perform the nexus in their daily lives.

It can be concluded that amongst practicing academics and senior managers in these sample universities, the relationship between teaching and research is subject to a wide range of interpretations.

The following quote from an early career academic in a balanced university highlights the need to take a step back from the ways that teaching and research overlap in an individual's daily life to consider whether institutional structures support academics' negotiation of research and teaching priorities in practice:

*The nexus is something we regularly hear about and it can be presented as an uncontested truth in university speak. However, it feels like research and teaching are increasingly in competition with each other in our daily working lives and in the priorities of the universities. We are expected to be masters of both with the relationship between the two often used to justify this. I love teaching and I love research but trying to be excellent in both is a lot of pressure. (early career, balanced university)*

This academic expresses the concern about performance which was reflected in the managers' accountability concerns above and, the associated difficulties of trying to perform at a high level in both teaching and research raises questions about the benefits of a concept which overlooks this type of struggle in academic work.

Moving to the institutions now, we present our findings relating to the way research and teaching are managed within our sample universities in five key ways.

#### *Institutional structures for teaching and research*

The structures of higher education were understood to broadly include managerial activities, tacit or overt, which can be used to shape organisational activity. These include the division of labour within an organisation into roles relating to teaching, research and/or both; decision-making processes affecting the promotion of staff or appointment of new staff; and the organisation of curricula in ways which influence academics' teaching and/or research.

- (i) Job roles: At senior levels in universities, there were often roles that had responsibility for research *or* teaching and learning. At the highest managerial level this might manifest in an appendage to a Pro-Vice Chancellor's title, such as PVC for Research. This separation of teaching and research was seen at faculty/school/college level when associate deans had responsibility for research or teaching. Furthermore, within departments, academic staff had administrative responsibility which mirrored this structural division, as Director of Research, or Director of Teaching and Learning. The Head of Department was identified as pivotal in shaping the way university policy on teaching and research translated into academic practice. There were exceptions where a senior manager had a role which took a lead on learning and teaching *and* research, within an institution which was organised around maximising the opportunities for students during the time they were enrolled there. Overarching values directly related to TEF criteria about the learning environment were helpful in aligning structures relating to teaching and research in this university in ways of benefit to students.
- (ii) Curriculum: While one senior manager commented that, in their university it is taken for granted that people expect to teach about their research, there was evidence elsewhere that this was not always the case. In such cases, the relevance of teaching to research becomes weak and the result is that academics are engaged in activities which are not reinforcing each other. Some universities are aware of the risks of this and gave examples of initiatives that supported a close connection between the two through intentional managerial decisions. One example is seen in the introduction, late in undergraduate degrees, of a research project within half-modules and which are related to active research projects. Another was given of a distance learning course where tutors, in the process of close and extended involvement with students' work, were prompted by their observations to research the process which led to new findings and subsequent publications. One university advocated small group teaching and, though noting the associated expense, said that students felt they were getting better quality input from cutting-edge researchers. One senior manager expressed this succinctly by commenting that academics are familiar with the characteristics of excellent research, but it is much harder to understand what excellence in higher education teaching looks like.

- (iii) Appointment strategies were mentioned by some university senior managers as relevant to the relationship between teaching and research. One senior manager talked about the importance of hiring new staff who, individually, had a balanced skill set, while another held the opinion that these individuals were scarce and that the balance had to be assessed across groups of staff at departmental or faculty level.
- (iv) Promotion pathways were an area in which there was less commonality of practice than evident in organisational structures. There were universities where promotion criteria were acknowledged to favour those strong in research and others who reported that, where this once may have been the case in their university, some changes were underway. For example, the introduction of teaching-only career pathways was in operation, with reports of Professorships awarded on the strength of teaching excellence, or promotion applications possible on evidence which showed a balance of strengths in teaching and research. It is of note that these were reported by senior managers at institutions with balanced strengths in teaching and research.
- (v) Continuing professional development, an aspect of universities' training opportunities that support academic staff toward promotion, tended to be organised as focused on research or teaching although, again from universities with balanced strengths, there were examples of structural conditions designed to support a close relationship between teaching and research. For example, in one there was an initiative to support academics' research into their own teaching practice and in another to support research into innovations in teaching practice from which lessons might be broadly applied. One university specified that the adoption of a pathway should be permanent, leading in the direction of teaching or research; another specified that there was flexibility in their institution; and a third was concerned with the gender imbalance which a self-evaluation exercise had led to their identification of research committees populated by senior men whilst seats on teaching and learning committees tended to be held by women. The characterisation of individual academics as 'suited' to administrative roles was mentioned by one senior manager regarding not having attracted constant streams of funding. These divisions in academic pathways result from institutional structures which separate teaching from research, but must be seen in the wider context of a national landscape in which research-funding, for example, comes from sources separate from the funding of teaching activity.

Overall, we found that structures within universities tended to separate teaching from research, "unbundling" and fragmenting otherwise holistic academic work into two (or three including management) separate roles. However, there is evidence of practice in our sample universities that intentional decisions are being taken to arrange the organisation in ways to support a close relationship of teaching with research and, to quote a senior manager from a university with balanced strengths, to aim for parity of esteem between teaching and research.

There is evidence across university types of competing priorities and a perceived imbalance in how research and teaching are valued. This can be seen particularly at balanced universities where, for example, no academics think that teaching is prioritised in promotion applications (Table 5) compared with approaching three quarters (73.4%) who think research is prioritised. This can also be seen in relation to hiring new staff (Table 6). A similar percentage at research/teaching universities see research as the priority (72.9%). Interestingly, this compares with around half of staff (51.3%) at research strong universities. It is important to note here that there are no observable differences across gender, career stage or contract type.

In your opinion, at your university, which aspects of academic work are prioritised? <b>[In promotion applications]</b> (1=teaching, 2=research, 3=both, 4=neither, 5=don't know)						
	1	2	3	4	5	
Research strong	2	47	19	1	9	78
Balanced	0	69	19	2	4	94
Teaching strong	4	17	12	0	7	40
Total	6	133	50	3	20	212

Table 5: Prioritisation of academic work: promotion applications

In your opinion, at your university, which aspects of academic work are prioritised? <b>[In hiring new academic staff]</b> (1=teaching, 2=research, 3=both, 4=neither, 5=don't know)						
	1	2	3	4	5	
Research strong	5	40	25	1	7	78
Balanced	2	70	18	1	4	95
Teaching strong	4	14	19	0	3	40
Total	11	124	62	2	14	213

Table 6: Prioritisation of academic work: staff appointments

The perceived imbalance of research over teaching in hiring of new academic staff and promotion also came through clearly in the open-ended responses:

*A recent trend towards recruiting new staff on the basis of research potential (specifically publication prowess/being potentially good for REF) means that I have to work with lots of teaching staff who haven't a clue what they are doing and even worse don't take an interest in teaching. (late-career, balanced)*

*In applying for promotion, while I have substantial evidence of excellent teaching and service, I am sure it will be my publications and grant capture that will be valued by the promotions committee. This does seem somewhat unfair. Similarly, in recruitment, it was strongly recommended to me that I flag up income generation and publications in my job applications and CV before teaching and service contributions. Doing so, I was always shortlisted for lectureships I applied for. Research still trumps teaching and service in securing jobs or seeking out a promotion. (mid-career, balanced)*

It is also clear, that this has resulted in some academics, across career stage, feeling that their teaching work is less valued than the research of others:

*I have worked hard to achieve reward and recognition for teaching but feel that my institution under the new VC is becoming far more research focused and that parity of esteem for teaching is at risk. (late career, balanced)*

*I am on a teaching focused contract and a considerable amount of time is spent developing new teaching activities and programmes and engaging in scholarship around my teaching. I have never felt this activity to be valued. More senior members of staff frequently say I am 'judged' for focussing more on teaching than research (such that I am now juggling a full-time PhD to enable me to progress). I feel passionately about good teaching and think it is a real shame that academics do not value it more. I know this is an age-old debate, I too am tired of it, but the lack of engagement in good teaching practices can be very demotivating. (early career, research strong)*

It is also clear that different academics feel there are different aspects being prioritised. Some academics highlighted that there is an increase in emphasis on teaching:

*It can be hard to see what to prioritise, especially if you're on probation or coming up to a REF deadline. I personally welcome the growing emphasis on teaching, as I feel that it has been underappreciated in UK universities during the last decade or so, but I worry that we're going to be asked to do more without more resources. (mid-career, balanced)*

However, others feel that the pressures come from research pressures. One mid-career academic at a balanced university was particularly critical of the pressures associated with this:

*The supremely wasteful process of application for grants from govt-funded research councils, hyper-incentivised by university managers, absorbing ever-greater amounts of time and nervous energy, with the depressing knowledge that 90+ percent of applications will fail, and those efforts will be completely wasted. For me and others, it prompts the decision to let the whole system go to hell, and to pursue one's own projects from one's own resources. It is a scandal.*

This has left some feeling that the pressures for excellence in both leads universities to:

*prioritise everything in principle...and create situations where front-line academics feel like abject failures because one cannot provide Ivy League level research, select liberal arts college teaching, and think-tank public levels of engagement/impact. (mid-career, balanced)*

It is, thus, clear from responses across university type that pressures for excellence in both teaching and research are resulting in unfair expectations. For example, a late-career academic at a balanced university highlighted that *'the job is at least 60 hrs/week, and we are told that every aspect is a priority - which is impossible'*. While the issue of workload was particularly highlighted at balanced universities, it came through across the other university types as well. For one mid-career academic at a teaching strong university, this had an important gender element with an association made between the difficulty in *'finding a good work/life balance as the workloads can be very heavy'* and the fact that there *'are no men on teaching only contracts at my institution'*.

*For there to be a real balance between the two, the workload between the two has to be balanced, as the 40/40/20 model suggests they are. Yet the reality is that research gets squeezed into the summer vacation period while the teaching year, including assessment marking and re-sits, now stretches from August/September to June. So universities that primarily focus on or value research for*

*promotion, add to the lecturer's stress levels by requiring so much teaching yet also having high expectations of research productivity. (mid-career, research strong)*

It is evident that academics across university types perceive there to be a gap between rhetoric and practice. As one mid-career academic from a balanced university noted, to achieve balance across teaching and research *'there needs to be actual parity (not just speaking of it)'*.

In this project arm, we presented data moving from individual, to institution to national context. To contextualise the survey findings more clearly, we now move to comparing them to practice elsewhere by presenting the second arm of the project: the international comparative study.

### Project Arm Two: International Comparative Study

The international comparative study draws upon the review of literature as well as the scoping study in England and Wales on a teaching-research nexus in higher education. This study explores how far the relationship between teaching and research is firstly, understood, and secondly, enacted in a range of countries. The main intention of the comparative study is to explore examples of policy structures, internationally, that offer an environment for the potential integration of teaching and research, and to gain a better understanding of how these structures work in consideration of the issues raised in the England and Wales study. This study incorporated a scan of current higher education policies across a range of countries investigating existing policy imperatives and funding models that support the interaction between teaching and research. The study also explored the teaching-research nexus from the perspectives of those working within universities in a selection of countries to explore the nature and extent of the integration of teaching and research in different contexts. The findings from this international comparative study will be compared with the data from the UK study in the conclusion of the report.

#### *Methodology*

The comparative study of international higher education policy aims to critically examine international trends in policies and practices affecting the relationship between research and teaching in higher education. The countries included in the study were categorised into three groups (Table 7). The four countries marked with an asterisk did not include interview data, due to time constraints.

New World	United States
	Australia
	New Zealand
	South Africa
	Chile*
Europe	Cyprus
	Ireland*
	The Netherlands
	Norway*
	Portugal*
	The Russian Federation
East & Southeast Asia	Malaysia
	Japan
	Singapore

*Table 7: Countries included in international policy scan*

First, a desk-based scan of policies in our sample of countries was conducted. Policy information was located online, all publicly available, and where a language other than English was used, only English translations of those documents were used in the policy scan, due to the limited scope of the study. This points to a

considerable limitation to this study, in that documents in the original languages may reveal potentially important differences in meaning. We encourage other researchers to take up this point, to explore higher education policy documents in their original languages.

Once the policy scan was complete, we used the findings to inform the development of interview questions<sup>3</sup> for people in senior management positions in higher education institutions in each target country. Where time permitted, semi-structured informal interviews were conducted either in person or via video conferencing. These interviews were not recorded, but notes were taken and approved by participants. Where real-time interviews were not possible or not preferred by the respondent, some responses to structured questions were collected in writing. The data collected in the interviews were used to complete a 'vignette' of each country in the study, representing a case. The methodology used to analyse the vignettes follows the practices of Rose and McKinley (2018) who employed a thematic text analysis (Kuckartz 2014), allowing key themes to emerge. The data supporting these themes are analysed in the Findings and Analysis section for the international project.

### *Findings and Analysis*

This section first presents the findings from the policy scan, providing an analysis of available documentation from the countries identified above.

#### International Higher Education Policy Scan

The policies of higher education systems in fourteen countries have been scanned for evidence of any traditions of a connection between, and integration of, teaching and research. Following is a summary of analyses of those policies, providing a snapshot of the situation in each country, organised by geopolitical regions. The three regions are: New World, Europe, and East and Southeast Asia.

#### *"New World" policy context*

The following five countries are grouped as "New World" countries<sup>4</sup>, with four representing core English-speaking countries (US, Australia, New Zealand, and South Africa), and one Spanish-speaking country (Chile).

#### **The United States of America**

Higher education, also referred to as 'post-secondary' education, in the US is not a federally-funded system so policy is mandated in each state. However, congress has a role in research funding, accreditation, data collection and policy proposals. This work is overseen by a section of the US State Department for Education called the Office for Post-secondary Education (OPE). There are around sixty current national policy proposals, broadly directed at widening access, for example 'Historically black college and university capital financing' and 'Transition and post-secondary programmes for students with intellectual disabilities', and promoting the global competitiveness of the US and its graduates ('First in the World'). The current administration is engaged in a policy drive to remove regulatory burdens from the American people though the effects of this are yet to be spelled out in the higher education sector.

Tertiary establishments vary in character, and are licensed or chartered to be operated by either state owners (public institutions) or private corporations (if independent). There is limited cross-state recognition. As of 2018, there are 6,479 higher education institutions. Degree-granting higher education is distinct from

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<sup>3</sup> Ethical clearance for this study was provided by the University of Bath's Social Sciences Ethics Committee.

<sup>4</sup> While this term has traditionally been used in reference to colonial 'discovery' of the world outside Africa, Asia, and Europe, in this report we borrow the term from the delineation used for the world's wine regions. Wine studies, like higher education research, is an area that is necessarily transdisciplinary, and is therefore a good fit for this report. 'New world wine' includes, in addition to a few other Latin American countries, Australia, Chile, New Zealand, South Africa and the United States.



non-degree granting institutions. The former comprises about 35% of all higher education institutions, with some 2,297 having degree-granting status. Of these, 702 award undergraduate only, while 654 award research-only doctorates (European Commission, 2006). Institutions are accredited by agencies who have developed criteria for evaluating the quality of the education provided as well as identifying those institutions which may be eligible for federal assistance.

The US budget for research funding, administered through the National Science Foundation (NSF) covers ten areas of research. It is engaged in the Strategic Plan for Fiscal Years (FY) 2018 – 2022 called ‘Building the Future: Investing in Discovery and Innovation – NSF’ which sets ten big ideas to prioritise investment directed at developing tools and knowledge to address societal problems. For 2019, the NSF has requested \$7.472bn, equalling the amount it was granted in 2017.

Only students at accredited universities are eligible for federal loans, the most common way to pay for higher education. The amount of student loans default has recently been the subject of a report which warns of a looming debt crisis amongst graduates (Scott-Clayton, 2018).

The high levels of autonomy in US colleges and universities, the fragmentation of the accreditation system, and the focus on competitive research funding suggests that the US positions research as the dominant element of the teaching-research relationship.

## **Australia**

Australia began an extensive review in 2014 of its higher education system (Higher Education Infrastructure Review, 2015), a process which is still underway. The 2016 National Research Infrastructure Roadmap (Australian Government Department of Education and Training, 2016a) outlined the country’s nine focus areas in which to prioritise research for building a stronger economy, bringing benefits to society and for improving the country’s national competitiveness.

The infrastructure review recommended extending research funding sources beyond the state and introduced the National Innovation and Science Agenda which financially incentivises universities to engage in research that collaborates with business (Australian Government Department of Education and Training, 2016b). According to The Grattan Institute’s report (Norton & Cakitaki, 2016), money won through research grants contributes to universities’ performance-based block funding grants and is based on student enrolment numbers. The country’s most prestigious universities, known as the Group of Eight, or Sandstone, get most of the research funding available through Australia’s Research Council (ARC), attracting 70% of Discovery Project funding money in 2016. The Research training programme was started in 2017 to provide scholarships and funding to subsidise university study. In 2018, AUS\$0.9bn of the AUS\$1.9bn available through the block grant went to research support whilst AUS\$1bn was made available to the research training programme. This may build on the rising rate at which enrolment rates in tertiary education were rising in 15-19 year olds and, more dramatically, 20-29 year olds<sup>5</sup>.

As student numbers rise, the state is recognising the role they may play in providing information about quality of their university experience. Since the 1990s the Course Experience Questionnaire (CEQ) completed by students rated higher education experience increasingly highly. The Student Experience Survey (SES), introduced in 2012, has directed survey questions towards curriculum, assessment and teaching and showed results and trends which were very similar to the CEQ. Nationally, HEI quality is assessed via the Excellence in

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<sup>5</sup> OECD (2018), Enrolment rate (indicator). doi: 10.1787/1d7e7216-en (Accessed on 16 March 2018)

Research in Australia (ERA, most recently completed in 2016 and the next round underway for 2018<sup>6</sup>), measuring quality by proxy through universities' research output, awards and grants attracted.

Australia is in the early days of substantial sector-wide policy-driven change and, as such, is in a process of transition. The academic research funding in its traditional architecture favoured universities strong in research and, consequently, performance-based indicators which relied on research outputs that skewed results towards those with established research practices. The recent policy shift to substantially invest more in students than in operational research may bring new emphasis to academic teaching and change the teaching-research relationship.

### **New Zealand**

Post-compulsory education in New Zealand covers many Tertiary Education Organisations (TEOs), comprising institutes of technology and polytechnics (ITPs) and Wānanga, as well as twelve universities which engage in teaching and research. Since 2000, the funding for research has been separated from the funding for teaching and learning (Crawford, 2015), with research funding overseen by the Tertiary Education Commission (TEC). Improvements in the clarity and usefulness of TEC's indicators of research output were reviewed in 2012/13 and implementation, which began in 2015, is due to be completed at the end of the next assessment round, later in 2018.

Since 2012, New Zealand has enjoyed strong economic growth and, against a history of substantial reform of the higher education sector spanning thirty years, is currently engaged in a national higher education strategy: the Tertiary Education Strategy (TES) 2014-2019. TES aims to improve New Zealand's international competitiveness by equipping its higher education graduates with skills to support business and innovation. The international aspect is particularly relevant as, although small in absolute numbers, New Zealand's intake of international students is notable for being the second highest in the OECD at 21%, within a tertiary sector which has seen trends for enrolment increasing over the last three years (OECD, 2017). The TES specifies six objectives for the sector, including a strong emphasis on skills delivery for industry and widening participation, with goals for TEOs to support Pasifika and Maori students' educational achievement to reach a par with other learners'. The fifth of the six objectives target strengthening research-based institutes in support of the economic growth of the country.

Funds and initiatives currently available to higher education institutions are the Performance-based Research Fund (PBRF), Centres of Research Excellence (CoRE), established in 2002 to develop research networks, and Entrepreneurial Universities to encourage university collaboration with industry. In September 2017, the first two funded entrepreneurial researchers were appointed to Auckland University and Victoria University of Wellington, the first- and third-ranked in the 2012 performance-based research assessment. Within the context of internationalisation and globalisation of higher education, changes to the funding system in 2014 reflect increasing emphasis on New Zealand's research output. Increased research funding from external sources, considered to reflect relevance of research output, was balanced by a reduction in performance-based research funding. PBRF allocates funds according to a Quality Evaluation programme based on performance of individual teaching and research staff in higher education institutions. The PBRF evaluates individual portfolios submitted by staff by research outputs, their contribution to the research environment and measures of peer esteem.

From 2017, a portion of the Student Achievement Component (SAC), to a maximum of 5% of funding, has been linked to the PBRF. This portion aims to encourage student retention and progression, as indicated by qualification and course completion rates, retention of first years and progression of students to higher

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<sup>6</sup> Australian Research Council, Excellence in Research for Australia <http://www.arc.gov.au/excellence-research-australia> (Accessed on 20 April 2018)

levels of education and can be considered an indirect evaluation of teaching. Additionally, TES 2014-2019 specifies that research-led teaching in HEIs is the basis for developing the next generation of researchers as well as enabling graduates to be skilled and active participants in their work and communities. However, research with Finance and Accounting academics in New Zealand and Australia suggests this may depend on academics' role and stage of career, with more senior, research-focused academics reporting little merit in bringing teaching and research together while younger, more teaching-oriented do (Hancock et al., 2017).

Overall, New Zealand higher education policy states a connection between research and teaching but emphasises research through national funding structures in which research output indicators outweigh the teaching elements, such as the 5% SAC proportion and, arguably, PhD completions. This is further emphasised through the implementation of policies which conceptualise research in higher education as a valuable contribution to skills development, international competitiveness and economic growth.

### **South Africa**

Although South Africa is in its third decade of democracy, its history of social inequality is highly evident throughout its education system with one of the lowest enrolment rates in education amongst 15-19 and 20-29-year-olds<sup>7</sup> amongst OECD countries. In 2012, a 'National Development Plan 2030: Our future – make it work', known as NDP 2030, was announced, aiming for a more unified and productive society. The NDP 2030 stated an intention to invest in public services, including HE, with aims to tackle inequity at institutional and individual level, and investing in the sector to make study at South African universities more attractive to international students.

There are 25 public universities in South Africa, funded mainly by block grants. The block funding pertains largely to students on roll, with the remainder allocated due to institutional factors, such as size or specialism - and research and teaching outputs. A review of this system of university funding made few major changes but identified systemic inequities, such as increases in student fees in some universities which exceeded the means of the National Student Financial Aid Scheme (NSFAS) to support poorer students through university (Department of Higher Education and Training, 2014). A recommendation was to target funding to improve historically disadvantaged universities and populations. The aim was to achieve a 20% participation rate by 2016, and growing numbers of disadvantaged, female, STEM and post-graduate students in a way that contributed towards a fairer, more cohesive society, as set out in the NDP 2030. Modification of the funding system included closer alignment of funding to student outcomes and improvement of quality assurance.

The Council of Higher Education (CHE), established in 1998 to advise the Education Secretary on all aspects of higher education policy, has been engaged in developing a radical and ongoing system of quality assurance in higher education since its inception. The Quality Enhancement Project (QEP) of 2014 focused on improving learning and teaching in support of the NDP 2030 aims. A key feature of the QEP is its attention to the role of teaching in improving university outcomes for students. Institutional audits identified seven areas for the QEP to focus on over two phases. It has prioritised teaching and learning in the first phase, including aiming to enhance academics as teachers. The QEP second phase is due to end in 2018 and CHE are currently engaged in consultation with key figures in higher education on an Integrated Quality Assurance Approach. The latest South African evaluation of universities' research output did so by journal and book publications and conference attendances (Department for Higher Education and Training, 2017).

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<sup>7</sup> OECD (2018), Enrolment rate (indicator). doi: 10.1787/1d7e7216-en (Accessed on 16 March 2018)

It appears that South Africa is using policy level quality evaluation to work towards developing a closer relationship between teaching and research to address concerns with inequality in completion rates at higher education-level in its specific national context.

## Chile

Following two decades of economic growth, Chile is the only South American country to join the OECD; however, it is the most unequal OECD country, as access is limited for certain groups of people. Educational reform has been targeted as a solution to this problem.

Chile's Ministry of Education has a dedicated higher education division. The higher education system is unitary and it does not make a distinction between academic and higher professional education, with programmes containing elements of both. There are three types of higher education institutions:

- Universidades (universities)
- Institutos Profesionales (professional institutes)
- Centros de Formación Técnica (technical training centres)

Growth in Chile's higher education has been substantial, and its higher education system has gone through a series of reforms (Arango et al. 2016). Reforms in 1981 initiated growth, increasing the number of total universities in Chile from eight to 25. The private sector expanded these numbers further again. As of 2015, there was a total of 173 higher education institutions in Chile (60 universities, 44 professional institutes, and 58 technical training centres). There are two types of "traditional" universities: 16 state universities and 9 state-funded private universities. The other 35 universities are private institutions, all established since 1980<sup>8</sup>. From 1990 to 2011 the gross higher education enrolment ratio increased from 14 to over 50%. Total enrolments increased from approx. 660,000 in 2005 to almost 1.2 million in 2016 (Arango et al. 2016).

With the increased role of the private sector, a greater focus has been placed on quality assurance. The first quality assurance system, the Education Council (CSE), was established in the mid-1990s. In 2006, Chile established a new quality assurance system (SINAC-ESII) that established the current system of licensing, institutional accreditation, and program accreditation (Arango, et al, 2016).

In 2012, Gea Universitas research group reported that teaching-only institutions outnumbered universities that focus on both research and teaching, with six or seven PhDs across three or more disciplines. However, for the first time in the country's history, Chile now has more research-based than teaching-only universities. As of 2017, nine institutions now offer seven or more accredited doctorate programmes. Between 2012 and 2017, the percentage of universities offering accredited doctorate programmes doubled from 26 to 52 per cent, viewed as positive progress for the reputation of Chilean research (Pells, 2018).

Chilean higher education is market-oriented (demand-driven, user-pays system). Rare in the OECD, the market orientation is a big part of the rapid increase in enrolment numbers. Private sources, mainly households, make up most total expenditure on tertiary education, which is around 75% (the OECD average is 31%). Students pay for their education through scholarships, loans, and their own resources. Chile's public expenditure on higher education is extremely low by global standards, making up about 0.5% of Chile's GDP in 2011<sup>9</sup>.

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<sup>8</sup> Nuffic (2015) "The Chilean education system described and compared with the Dutch system" <https://www.nuffic.nl/en/publications/find-a-publication/education-system-chile.pdf> (Accessed 20 March 2018)

<sup>9</sup> OECD (2018) Economic surveys and country surveillance. <http://www.oecd.org/eco/surveys/>. Chile: [http://www.oecd-ilibrary.org/education/education-in-chile\\_9789264284425-en](http://www.oecd-ilibrary.org/education/education-in-chile_9789264284425-en) (Accessed 20 March 2018)

Loopholes have led to cost inflation in higher education in Chile. A 'reference fee' system for each degree program is used to determine student loan amounts. The Ministry of Education sets the amounts every year considering several educational indicators including graduation rates, student retention, teaching quality, research productivity, etc. Because there are no government price controls, universities have raised fees over the reference fee amount by charging a top-up or premium.

Since 2011, there has been intense student dissatisfaction of higher education in Chile, due to increased costs and unequal access. The students are demanding universal free education, and desire actions to prohibit privately owned (non-profit) universities from profiting from their operations<sup>10</sup>.

In May 2015, in response to the sitting president's election platform, the Chilean government announced its plans establish universal free higher education, exempting poor students from fees; the reforms were revised due to legal challenges and changed circumstances. The reforms were considered 'quick fixes', not sustainable, and likely to result in poor outcomes, making access issues potentially worse.

Regarding a possible relationship between teaching and research in Chilean higher education, while there is no evidence of efforts to integrate these, it seems with research-based universities now outnumbering teaching-only institutions, and student loan amounts being set with consideration given to teaching quality (among other criteria), there is a potential shift toward exploring a relationship.

#### *The European policy context*

The following section focuses on a group of countries who are members of, or have formed partnerships with, the European Union, and who have agreed to work towards pan-European policies for higher education with common aims. European higher education institutions have gradually characterised the relationship between teaching and research to bring increased emphasis on academic research. At state-level, policy operates in relation to key EU agreements on research and higher education, with a growing coherence towards the overarching aims of the EU-wide approach. Six of our sample countries are operating within this policy context.

Thirty countries that were party to the European Cultural Convention, signed the Bologna declaration in 1999 and established the European Higher Education Area (EHEA). With the aim of strengthening higher education in Europe to increase the sector's international competitiveness, its initial concerns were to compare degree qualifications across European member states as well as establish the freedom of movement of academics and students, integration of cross-national research and international quality assurance measures. The European quality assurance agency responsible for advising member nations on meeting these measures, ENQA, was established in 2000 and, in 2005, the European Qualifications Framework (EQF) was implemented to begin standardising qualifications between countries.

Higher education institutions in 46 countries were operating under the remit of the EHEA by 2009 when the Leuven/Louvain-le-Neuve statement specified a shift in the financing of research. In response to the 2008 world financial crisis, cost-effectiveness agendas prompted performance-based funding mechanisms for higher education institutions, focused on research output criteria. Other cost-sharing trends, such as the introduction of student fees to pay for tuition, also adjusted the funding landscape of higher education institutions, with the recognition that diversification of funding sources was likely to continue. The European Research Area (ERA) was formed in 2012 to support member states to strengthen excellence in higher

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<sup>10</sup> BBC News. 2011. "Chile students stage mass protest for education" <http://www.bbc.co.uk/news/world-latin-america-15028214>

education institutions. Nation-level open competition for research funding encouraged closer alignment research with enterprise, based on the concept of innovation as a lever for economic growth.

Horizon 2020, an €80 billion research fund open to competitive bids between 2014 and 2020 from states in the ERA, was developed as a means of steering HEI activity through research funding and enterprise collaborations, towards tackling specifically-identified problems. Preparations are underway for the next major EU research investment programme, with budget proposals to be announced in May 2018 and the new framework to be launched in January 2021.

EU higher education policy aims have evolved over time but can be summarised, at this point, as having been directed at connecting research innovation with enterprise, endeavouring to contribute to economic growth, nationally, across the European Union and internationally. Today there are 48 countries in the EHEA. Six of these are included in our policy scan: Cyprus, Ireland, the Netherlands, Norway, Portugal and the Russian Federation. Whilst there is debate about the extent to which EU policy leads to convergence of member states' national higher education policies, there is some evidence that influences in the national contexts of the UK and the Netherlands led to variations in how countries adopt the policies (Hsieh & Huisman, 2017). The higher education policies of the following countries should be read in relation to the EU policy context outlined above while bearing in mind their specific historical and political higher education contexts.

### **Cyprus**

According to the European Commission's recent economic forecast (2018), Cyprus is experiencing a strong recovery making it one of the fastest growing economies in Europe. Higher education in Cyprus is small scale and relatively recent, with just three state universities, six private universities, and the oldest – Cyprus State University – having been established in 1989. The country also has five public and about thirty private institutions of tertiary education. All universities are required to engage in teaching and research. The sector is developing with support from the European Commission under the guidance of the ERA Roadmap for Cyprus 2016-2020. The policy prioritises the development of the higher education system and, particularly, the strengthening of connections between higher education and industry (like the KEF in the UK) as set out in the RE-START strategy 2016-2020. With a budget of €99m, of which €45m is financed by the European Union, this seeks to promote, in a sustainable way, research in connection with development of technological development and innovation in priority areas.

University student numbers are rising and, according to Ministry of Education figures up to 2012, 2009-10 saw the number of Cypriot students choosing to study in Cyprus rise above the number choosing to study abroad. Individual higher education institutions can charge their own fees within a range set by government but students can also apply for means tested financial support or scholarships. Student loans are only available for those owning property in Northern Cyprus.

Quality Assurance remains a high priority in higher education in Cyprus. The Cyprus Agency for Quality Assurance and Accreditation in Higher Education was given legal powers in 2015 to develop the quality of higher education programmes. This is being done variously through institutional autonomy, development of connections with industry and recognition for improving teaching quality in higher education institutions through provision of continuing professional development opportunities. Research funding is organised via the Research Promotion Foundation (RPF) with a long-term strategy steered by the National Council for Research and Innovation (NCRI), responsible for implementation of Re-start 2016-2020. Research funding is developing in line with the UK's Horizon 2020 priorities.

At this point in time, Cyprus has an under-developed and fragmented higher education system which is being supported to become more effective in line with pan-European policy. As such, individual institutions' interpretation of the relationship between teaching and research may well differ.

## **Ireland**

The Irish Higher Education system is undergoing a concentrated process of renewal and investment closely aligned with the country's own economic prosperity. The first recommendation in the Higher Education Authority's 'National Strategy for Higher Education 2030' (2011) was that higher education students have excellent teaching informed by up-to-date research. This was followed by recommendations to identify priorities in Ireland's higher education systems, functions and funding. This led to a raft of related policies, for example, the 'Digital Roadmap for Teaching and Learning in Irish Higher Education' (2015-17), which had a specific focus on investing in development of IT skills across the entire education system. In addition, Innovation 2020 (2015) is a national strategy pertaining to the role of higher education in connection with enterprise and economic growth. It aims to make Ireland into a global leader in innovation, in research that is relevant to the economy and society. These policies have since been joined by the National Skills Strategy 2025 which positions higher education within a broader STEM and innovation-focused drive to support learning in Ireland throughout the life course, with the specific aim to improve people's lives and achieve sustainable economic growth.

Innovation 2020 set out plans to increase public investment in research, via block grants based on student numbers, to 2.5% of GDP by 2020. A review of the allocation model for funding higher education was carried out in 2017, proposing to make substantial and sustainable changes, by 2020. Proposals include introduction of a wider range of performance-based indicators for teaching and research activities, streamlining the current system to direct investment more efficiently, and so promoting life-long learning and strengthening Ireland's social and economic progress. There is also a proposal to introduce new Innovation and Technology Universities to be funded from the same pot as existing universities. The proposed changes in the review suggest moving from a non-uniform assessment of higher education institution performance-based funding to allocations based 45% on PhD completions, 40% on competitive funding awards and 15% on research output metrics. The Irish Research Council (IRE) is responsible for administering research funding through a competitive grant system.

Student numbers continue to grow in higher education and the Irish government identified the need for substantial further investment in the sector as well as the changes proposed in the 2017 review. Quality and Qualifications Ireland (QQI), responsible for quality assurance. In the QQI (2016), report on higher education in an era of diminishing resources, the Higher Education System Performance Framework specified an intention to move away from compliance, towards Quality Care Enhancement, whilst also noting tensions in the relationship between teaching and research. This comes alongside a three-year consultative process beginning in 2014-15 by the National Forum for Enhancement of Teaching & Learning in Higher Education. Funded support is available from 2016 to ensure higher education teaching practices align with the 'National Professional Development Framework for all Staff who Teach in Higher Education' (2016). The framework includes a strong element of continuous professional development as well as directing institutions to support the development across all the activities which academic work involves.

There is some evidence of the development of communities of scholars where teaching and research are understood as closely related (Brennan et al., 2017). However, in the current process of transformation, it might be more accurate to conclude that, at present, while teaching and learning are positioned in tension with each other in Irish higher education, there are strong indicators that policy is steering the sector towards establishing a closer relationship between teaching and research.

## **The Netherlands**

The Netherlands' economy is currently robust and, according to data available from the OECD<sup>11</sup>, public spending on tertiary education was relatively stable between 2010 and 2015. Higher education in the Netherlands comprises universities of applied sciences, including higher professional education (HBO), and research universities (WO). There are thirteen universities in the Netherlands, including three specialising in technology, all of which combine academic research and teaching. They are regulated under the Dutch Higher Education and Research Act (WHW). In 2014, the Dutch government set out its 2025 Vision for Science agenda that aims to maintain the country's strong research tradition. At its heart are 140 research questions, established by a unique, bottom-up generation of questions from the general public, which are being used to steer research towards overcoming some of the most complex issues that challenge society.

Only accredited higher education institutions attract state funding, an assessment made by the Accreditation Organisation of the Netherlands and Flanders (NVAO) and which, since 1st January 2017, has followed a national assessment framework. The NVAO appoints a panel to conduct an institutional audit. This combines a site visit and evaluations via the institution's self-assessment report. The assessment is made on whether educational practice meets the standards and includes consideration of student outcomes, intended and achieved, curriculum and the learning environment, teaching quality and student assessment. There is evidence that academic performance management strategies underpinning the quality assurance programme have increased academics' time spent on research at the expense of teaching (Leišytė, 2016). Leišytė argues that, as women academics do more teaching, this skew of the relationship between research and teaching brings gender equality implications affecting career and promotion prospects for female academics in the Netherlands.

Higher education institutions receive block grants from the government that are based on higher education performance grants and depend on student numbers enrolled and completion rates. Funding for research is also open to competition through the National Research Organisation, known as the NWO. Numbers of students enrolled in higher education increased annually between 2010 and 2014<sup>12</sup>. Students pay fees although student loans for undergraduate and Master's students have been available since 2015-16, and socio-economic assessment is available. Reforms to the fees system implemented in September 2017 have opened up loans to over-55s and those seeking professional development. The 2018-19 academic year saw a halving of first year students' fees.

The Netherlands is developing a clear strategic vision for higher education research to promote wider access and lifelong learning. In addition, quality assurance, upon which funding relies, does not focus specifically on research or teaching but on ensuring that, however institutions choose to spend their funding, they are meeting standards of high quality, partly based on course completion rates. However, the policy reforms may be affecting the teaching-research relationship in unintended and adverse ways. For example, government initiatives in higher education in the Netherlands have maintained a dichotomization between teaching and research, especially due to a hierarchical governance mode and regulations of teaching involving performance evaluation (Capano, 2017).

## Norway

Since publication in 2014 of the government's White Paper *Long-term plan (LTP) for research and higher education 2015–2024*, higher education in Norway has been undergoing reform towards meeting three objectives. These include addressing societal challenges and developing outstanding research groups, but are led by aiming to harness research activity to strengthen Norway's capacity to innovate and compete

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<sup>11</sup> OECD (2018), Public spending on education (indicator). doi: 10.1787/f99b45d0-en (Accessed on 15 March 2018)

<sup>12</sup> OECD (2018), Number of students (indicator). doi: 10.1787/efa0dd43-en (Accessed on 15 March 2018)



internationally. As part of this, a substantial review of the organisation and funding of higher education institutions was completed in January 2016 with the merger of fourteen higher education institutions into five. Reform continues and, as recently as January 2018, the King of Norway made Research and Higher Education a distinct strand within the Ministry of Education and Research.

The two main funding streams for state-owned higher education institutions come via the state budget in a block grant and from grants awarded through open competition by the Research Council of Norway (RCN). 30% of funds by the former depend on outputs such as number of graduating students and publications. Most government funding to higher education institutions are given as block funding with just 30% distributed according to performance-based evaluations in three categories: reported student performance, research performance, and strategic research considerations. Student performance, since 2016, has been defined according to grades at course completion and research performance as measured by publications. Strategic priorities include research funds coming from places other than the state to encourage universities' research to link with industry and the public sector.

RCN is responsible for about 30% of publically-funded research and development, as well as for evaluating the quality of national research output and developing national funding strategies in line with governmental policy. The RCN's budgetary priorities are shaped to meet the LTP and, in 2018, specified the largest increase, of NOK 339 million, to be directed towards developing outstanding research groups. RCN operates two funding streams: basic and strategic institute initiatives (SIS) for which ceilings are set. Basic funding is partly performance based and evaluation of quality is indicated by income from nationally commissioned research; scholarly publication; income from international sources; and the number of doctoral degrees completed.

Students enrolled in education in Norway has remained relatively stable<sup>13</sup>. Norway's state-funded universities do not charge tuition fees for home or international students.

Quality assurance of higher education institutions is maintained by NOKUT. It publishes evaluations of study programmes via a student survey and a teachers' survey and engaged the Nordic Institute in a comprehensive, international review of higher education practice to identify indicators suitable for the Norwegian context (Marie Elken & Sabine Wollscheid, 2016). Norway's most recent White Paper, *Quality Culture in Higher Education* (2016-17), sets out a vision which places student/teacher interaction at the heart of quality in universities. The document explicitly requires higher education institutions to take responsibility for developing the quality of teaching, asserting that academia should place greater value on education and teaching. The implication, in this wish to centralise teaching in universities, is to move away from a system which is led by a focus on research.

The Norwegian higher education policy context can best be described as evolving, being only two years into a ten-year programme of substantial, sector-wide reforms. However, the most recent turn in Norway's higher education indicates that it may be using policies to cultivate a connection between teaching and research in higher education.

## **Portugal**

Some political turbulence in late 2015 when a minority left-wing coalition group ousted the elected right-wing coalition eleven days into their term, seems to have brought a pause in higher education policy-making. However, the Portuguese Ministry of Science Technology and Higher Education, in late February 2018,

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<sup>13</sup> OECD (2018), Enrolment rate (indicator). doi: 10.1787/1d7e7216-en (Accessed on 16 March 2018)

released a national strategy document: 'Higher Education Research and Innovation Portugal Perspective 2030', suggesting that this hiatus may be coming to an end.

Portugal has 55 universities and 88 polytechnic schools in its tertiary sector. 'Perspective 2030' sets out to challenge the previous trend to direct investment in higher education to support an elite pursuit, questioning the purpose of higher education by asking what quality means in Portugal. In answer, the document specifies a target of substantially increasing the proportion of Portuguese with higher education qualifications by 2030, rising to 50% of all 30-34 year olds from 35% in 2016, and 60% of those aged 20 going on to higher education. This is to be funded by increasing investment from the public and business sectors and is directed specifically towards developing Portugal as a European digital leader. At a time when enrolment amongst 15-19 year olds and 20-29 year olds is not increasing <sup>14</sup>, Portugal's policy to widen participation may make a substantial impact on the sector.

Accreditation and quality assurance is the province of the Agency for Evaluation and Accreditation of Higher Education, or A3ES, which was engaged in a cycle of reviewing institutions which was due to end in 2016. The most recent accreditation documents on its website predate the political changes in 2015, which may suggest that the review cycle has not been completed.

Funding for research in state-owned higher education institutions is mainly from central government and is roughly split 55% at organisation level and 45% at project level according to ERA Progress Report 2016. After the financial crash of 2008, higher education funding was reduced and policies to reduce university operating costs were put in place. Student tuition and private fees were increasing (up to October 2014).

The Foundation for Science and Technology (FCT) is responsible for administering open competitions for research funding and for working towards making Portuguese research internationally recognised as well as ensuring the usefulness of research knowledge for the country's economic growth and the well-being of its people.

Until relatively recently, Portugal's higher education policies supported cost-cutting in the sector and increased investment in research excellence – through institutional evaluations as well as open-competition for research funding – implying an emphasis on research output over teaching. In the existing higher education system, Farcas et al. (2017) note that low interest levels amongst students and a low number of contact hours with academics can create barriers to the development of a nexus between teaching and research. However, Portugal seems to be embarking on a highly inclusive higher education policy (announced late February 2018) which may be expected to make an impact on the teaching-research relationship.

### **The Russian Federation**

There are 2,597 universities in Russia. Since 1992, private universities have been permitted as well as state-financed higher education institutions and are funded by student fees. Both require state licence and accreditation. In addition, there are specialist Research Institutes, overseen by the federally-funded Academy of Sciences for Russia which has its strategic direction governed by national law. The rapid growth of private universities has been suggested to contribute to social inequality and a stratification of the higher education system across the Federation (Zajda, 2016). The rapidity of modernization in higher education has led to concerns of corruption in private and state-funded institutions, at systemic and petty levels and including bribery, misuse of federal funds, and qualification purchasing (Fursova & Simons, 2014) although there is evidence that corruption is not limited to this country (Chapman & Lindner, 2016). Student enrolment numbers are relatively stable in 15-19 year olds but have shown a slight decrease in 20-29 year

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<sup>14</sup> OECD (2018), Enrolment rate (indicator). doi: 10.1787/1d7e7216-en (Accessed on 16 March 2018)

olds since 2012 and 2015<sup>15</sup>. More up to date figures may likely show an increase in student numbers which reflects the growth in higher education.

The Russian Federation is currently engaged in a 'State Program for Development of Science and Technology, 2013-2020'. A current major policy in higher education for the Ministry of Education and Science is promotion of 'Universities as Innovators' running concurrently with the 'Russian Academic Excellence Policy', launched in May 2013 and intended to last eight years, which aims for improvement in Russian universities' national reputation. One element of this is the 5-100 Project which aims to have five Russian universities in the top 100 of the world rankings by 2020. It was launched with a competition amongst existing Russian universities to identify, and fund, those to lead Russia's higher education excellence and compete globally by 2020. There are currently twenty-one in this elite group and they will receive further state subsidies if they meet their action plan targets, which must include an element of co-financing from sources other than the state.

Open-competition for research grants is available via the Russian Research Funding Council (RFRC), a body which has a branch for funding research in the Humanities and Social Sciences. However, securing finer detail on the funding mechanisms of the RFRC was hampered by untranslated pdf documentation. Decisions about allocation via indicators are not known.

Details in English are also scarce on the accreditation process, although it has, since April 2007, involved the President of the National Union of Students (correct at July 2012), along with a higher education self-assessment exercise. The self-assessment includes the results of a student survey, site visits by peers, and rests on the analysis of results from these two sources by the National Accreditation Agency (NAA). It should be noted that lecturers teaching in state universities are required to hold a teaching qualification as well as a higher degree. There is no English access to evaluation frameworks for quality of higher education teaching.

Overall, it seems that Russia's main concern is using policy levers to accelerate the global ranking position of selected universities, propelled by competition amongst researchers and underpinned by, primarily, state funding.

#### *The East and Southeast Asian policy context*

Developments in the most populated part of the world have been significant, and the following snapshots cover Malaysia and economic strongholds Japan and Singapore, providing examples of ambitious policy initiatives.

#### **Malaysia**

In April 2015, the Malaysian Ministry of Higher Education released a major policy directive for education. The 'Malaysian Education Blueprint (Higher Education) 2015-2025' remains the central policy document outlining a ten-year strategy plan for Higher Education institutions. The stated aim of this strategy is to ensure that universities in Malaysia are globally competitive and are of a global standing. Progress has been made as five of the Malaysian rankings currently feature in top 100 in the Asian Rankings. At the subject level, eight universities are ranked in the top 200 in at least one subject area in the QS rankings.

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<sup>15</sup> OECD (2018), Enrolment rate (indicator). doi: 10.1787/1d7e7216-en (Accessed on 16 March 2018)

In strategic terms, the Ministry of Higher Education in Malaysia offers significant research funding to universities in Malaysia on a competitive basis. There are five major stands of research<sup>16</sup> funding that are strategically aimed at improving research output and research quality in Malaysian universities.

The Malaysian government has strategically incentivised the production of high quality research outputs to be more competitive internationally (Kim et al. 2017). The highest increase in the world of research article publication was by Malaysian universities, which increased more than three times between 2007 and 2012, and the number of citations quadrupled from 2005 to 2012 (Malaysian Education Blueprint 2015, E2).

It is clear from the MEB that global research competitiveness is the prime policy goal. In terms of teaching, this policy mentions ‘ten shifts’ necessary to achieve this goal that include the aspiration that “blended learning models will become a staple pedagogical approach in all HLLs” (Malaysian Education Blueprint 2015, E16 Shift 9). Throughout the MEB, the relationship between research and teaching is implied rather than explicitly stated.

The Malaysian government provides 90% of funding to all public higher education institutions through budget allocation each year, with the remaining ten per cent coming from students’ fees. In 2016, it embarked upon a strategy to reduce the reliance on government funding to make public universities in Malaysia less financially independent and more entrepreneurial<sup>17</sup>. These changes in funding are impacting upon future decision making, for example, increasing student numbers, increasing student fees, and developing new programmes and courses, as there is a new imperative to raise income to cover the shortfall.

It has been argued that the emphasis on the ‘teaching-research nexus’ and the approaches taken to strengthen this nexus are no different in Asian universities than in their Western counterparts (Shin & Kim 2017). In Malaysia, the teaching-research nexus, as in many other countries, is evolving and developing (Cummings & Shin, 2014). There is evidence to suggest that universities in Malaysia are making efforts to strengthen this relationship (Azman et al. 2014) and that efforts tend to be institutionally driven and generally supported by the contemporary policy environment.

## **Japan**

The Ministry of Education, Culture, Sports, Science and Technology (MEXT) oversees all levels of education in Japan. Students enrolled in higher education has steadily increased since the Second World War. Enrolment of 18-year-olds—the most common age in Japan to enter higher education—in universities and junior colleges exceeds 50%, and including technical colleges, and specialised schools, enrolment currently exceeds 70%. This indicates Japan provides universal access to higher education (MEXT, 2012). As of May 2011, there are over 1,200 universities and colleges, with about 3.22 million students. There are national universities, public universities, and private universities. Private universities make up about 80% of universities.

In 2004, all national universities, which were previously part of the Ministry, were reorganised as corporations. This move aimed to improve independence and autonomy in the universities, and revitalise education and research activities. The move allows national universities to manage themselves like public (also permitted to reorganise as corporations in 2004) and private universities, independent from national frameworks.

Quality assurance is controlled by MEXT, which approves the establishment of new universities and oversees changes to organisational structures. Research is not a consideration for the establishment of new

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<sup>16</sup> Ministry of Education Malaysia (Higher Education) (2018) <https://www.mohe.gov.my/en/research>

<sup>17</sup> <https://www.timeshighereducation.com/news/malaysia-cuts-public-university-funding>

universities, but teaching is—at the micro-level of contents, plans and the standards for performance assessment. However, autonomous quality assurance activities include providing training for teaching staff (faculty development), “or research opportunities required to improve teaching” (MEXT, 2012). Quality assurance is conducted through mandatory self-evaluation, maintaining a separation between ‘education’ and ‘research’.

There have been a series of projects for higher education reform funded by MEXT in the past ten years, mostly designed to increase internationalisation (sometimes interpreted as increasing English-medium instruction) and promote student mobility. The most ambitious of these recent projects are: Global 30 (2009-2014), Re-inventing Japan (2011-ongoing), Go Global Japan (2012-2016), and Top Global Universities Project (2014-2023). A limited number of universities are selected to receive funding through these projects, expected to achieve specific objectives such as increasing international student numbers, increasing student exchange, and expanding English language and/or international curriculum, placing emphasis on university reputation, research quality, teaching quality, and graduate employability (Rose & McKinley, 2018).

The most recent of these projects selected eleven universities expected to compete for a position in the top 100 world-ranked universities, placing more emphasis on research. National universities were initially supported as research centres, and having gone corporate in 2004, continue to position themselves most strongly for world rankings. The other thirty-one universities funded for this recent project are expected to serve as examples of “innovative universities that can lead the internationalization of Japanese society” (Rose & McKinley, 2018, p. 112). There is no evidence in the efforts of participating universities to integrate teaching and research, as objectives set by MEXT consistently maintain a separation between education and research.

On exploring a teaching-research nexus in higher education in Japan, there has been little research. Kimoto (2014) reported on a survey studies (exploring gender bias) published in 1992 and again in 2007 that posed the question, “Regarding your own preferences, do your interests lie primarily in teaching or research?” (p.95). Here again we see the dichotomization of teaching and research, Kimoto drawing out only that research appears to be increasingly valued and important for professional advancement in Japanese higher education.

## **Singapore**

The Ministry of Education of Singapore’s Higher Education Policy Division (HEPD) is responsible for the creation and monitoring of policies relating to all higher education institutions. HEPD is research-active itself, conducting various studies designed to inform higher education policy. The number of higher education institutions has tripled in the past two decades as a result of Ministry-led initiatives. Singapore now has six government-funded autonomous universities, as well as a number of private and foreign universities and institutions offering externally-awarded degrees.

In 2002, Singapore commenced a series of higher education reform policies as part of the Global Schoolhouse Initiative, which consists of three policy directions. The first was the promotion of transnational education. Reputable higher education institutions were invited to establish a campus in Singapore; several opened, but some closed due to finances and low student enrolment. The second policy direction was to increase the number of international students by 150,000. The third policy direction was to have public universities corporatize as a way of promoting autonomy, seeking to increase from 2.8% to 5% the contribution of higher education to the economy by 2015 (Basillote et al. 2016).

The Global Schoolhouse Initiative was a response to globalisation, and involved an increased presence of foreign higher education providers and consumers, raising concerns about potential undervaluing local students, and quality assurance. Quality assurance has been used to reshape higher education in line with

Singapore's oft-changing policy agendas. A Performance Agreement is signed between each university and the Ministry every five years. The Agreement clarifies targets for teaching, research, service and organisational development over a five-year period. Individual universities also submit an annual progress report to the Ministry, and quality assurance experts conduct on-site validations every five years (Lo 2014). In 2004, it was noted that quality issues were a problem, due to low quality of teaching and low entry requirement of students, indicating that the profit-driven objective of the private sector is problematic (Lim 2009).

To integrate research and practice, to hone research skills and encourage practice-informed research, Singaporean higher education has made advancements in design and technology-assisted learning and teaching, supported financially by the Ministry. In this way, Singaporean researchers "have capitalized on the nexus between research and practice" (Looi et al. 2011, p.14). Ministry directives required that new concepts and methods of technology-assisted learning and teaching needed to be modelled, tested and transferred from the research lab to the classroom.

While the 2002 initiative has not achieved its ambitious goals, it launched significant changes to Singapore's higher education profile, making it the fastest-developing country in our study, where efforts to integrate research and teaching have been highlighted and promoted.

#### *Discussion (policy scan)*

The international policy scan was conducted with the aim of identifying the ways in which the teaching and research relationship is understood, conceptualised and realised in diverse higher education systems. The countries included in this sample highlight some common issues despite very different national contexts. This discussion section first addresses four main issues that emerge from the data that influence the teaching-research nexus with some consideration of the situation in the UK; it then considers the question of how realistic the existence of a nexus is given the contemporary pressures on academics, before moving to general issues raised by the policy scan.

Issues affecting the relationship between teaching and research in international higher education  
The international policy scan was conducted with the aim of identifying the way the teaching and research relationship is conceptualised in diverse higher education systems. The countries included in this sample have raised some common issues despite very different national contexts. Seen in relation to the global trends in higher education of internationalisation and global competition for market shares, the reforms which these countries are engaging in are significantly changing the nature of the activity in the sector and the emphasis is on competitively-funded research directed at objectives set nationally or pan-nationally. Gourlay and Stevenson (2017) argue that these influences build a 'prestige culture' challenging the traditional autonomy of higher education institutions and the nature of the academic work going on within them, particularly regarding teaching. Elsewhere it is argued that marketized conditions at systemic levels put pressure on individual academics to comply with economic agendas, giving rise to concerns about the integrity of research in many countries across the world (Chapman & Lindner, 2016). Furthermore, as the sector grows, the use of performance metrics to make funding decisions has led to the promotion of certain types of academic behaviour and output above others (Oravec, 2017). These issues are closely tied to the rise of performance-based funding measures and accountability but may also have profound effects on the relationship between teaching and research in academic work. The four main issues are highlighted below.

#### **1) Globalisation of higher education and the international trend in commodification of education: higher education as instrumental to economic growth**

Global trends in recruiting international students lead to a race for rankings (Hazelkorn, 2015) evident in the specific aims of some countries in our sample, for instance Malaysia, Russia and New Zealand. Australia have

been explicit in some of their policy documents that one motive behind improving the international reputation of the higher education system is in order to attract the best researchers in the world (Australian Government Department of Education and Training, 2016a).

Treating education as a business has been argued to create conditions for corruption, evident in Russia where institutions pay for accreditation or individuals purchase qualifications (Fursova & Simons, 2014). The business approach to higher education has also put the Needs of international students at risk while universities continue to be in danger of misinterpreting *internationalisation of higher education* simply as having international students enrolled. Curriculum changes have not reflected international student needs.

## **2) Effects of an emphasis on funded research over teaching**

Decisions about distributing funds to research has led to increasing competition amongst academics conducted within a discourse of collaboration and inter-disciplinarily.

Limiting research funds and an open-competition for the research funds which exist, impinges on academics' attention to teaching (Mitten & Ross, 2016). To combat this, some policies aim to improve the standing of the teaching aspect of the work, as in the case of Ireland and Norway. Where the concept of 'excellence' has been applied to measuring teaching performance, as in the UK, criticism of the quantification of value through crude instruments such as student surveys has been blamed for marginalising qualitative indicators and eschewing cultural value differences (Saunders & Blanco Ramírez, 2017).

## **3) Effects of decrease in state funding**

As state funding levels for higher education decrease, supplements are sought in a variety of sources, privately-funded universities are being accommodated in some countries, for instance in Cyprus, Malaysia and the Russian Federation. Alignment with industry attracts research funding in Europe. Replacing state funding with student fees is a widely-adopted alternative although this brings with it ethical issues around social justice. This issue is being actively addressed by, for example, New Zealand aiming for ethnic parity in student participation, and in Portugal, through funding an increasing proportion of the population to gain access to higher education. The nature of the student body changes, and there is some evidence that the student fee model is being rejected, for instance, by the populace in Chile, or, at the national level in the Netherlands, where it is being modified with the intention of lowering the cost to the individual.

With a decreasing amount of financial resources to expend, value for money agendas have given rise to quality assurance indicators in nearly all countries in this sample. Some countries operate *ex ante*, for instance Russia only releases funds on receipt of research plans which outline how the national research agenda is going to be achieved. Elsewhere, *ex post* indicators, such as the impact of research outside the academe, are included in assessments of funding allocation. The response to inclusion of impact measurements has been criticised as leading to a formulaic approach in some UK universities, although others are reframing the measurements in ways which are relevant to their particular research and local contexts (O'Connell, 2018).

Other issues from the international policy scan

There are several key trends evident across the international higher education sector which also influence national higher education practice in the UK. This section draws attention to the most important of these influences to contextualise the way in which the relationship between teaching and research is realised in academic practice, at both the level of the institution and the individual.

All fourteen countries were engaged in policy reform processes that were at different stages of development. Many were responding to changes in the funding of university education which were necessary after the 2008 global financial crisis and led to a reduction or replacement of state funding for

universities with private income, often from the introduction of student fees. Such a response has resulted in a series of decisions regarding the management of limited resources within the sector. Operating within such constraints some countries have planned to increase the number of higher education institutions (Singapore, Russia and Chile), whilst others actively pursue increased student enrolments, particularly of international students (Singapore, Japan, South Africa, New Zealand). Other strategies adopted include identification of new ways to fund higher education activity. Following Enders and De Weert's (2004) typology, competition amongst universities for research funding has led to a *concentration* of research institutions. This is noted in Japan, Malaysia, Russia and New Zealand whilst *differentiation* by institution is a feature of the Netherlands, Ireland, Chile and Australia. This distinction reveals how, at the international level, higher education systems are less likely to integrate teaching and research in higher education policy. Norway stands apart in many respects, as it has rationalised its higher education sector by merging existing higher education institutions, resulting in a smaller number of universities, thus maintaining state funding in the sector and not charging student fees.

Many of the contemporary higher education reforms reflect the need to reposition higher education as within a climate of financial restraint. For example, higher education policy is explicitly linked to GDP in Singapore, Ireland, New Zealand, Australia, and, prior to major political changes in 2015, Portugal. Increasingly policies within higher education are linked to innovation and economic growth (Russia, Ireland, Cyprus, New Zealand and pre-2015 Portugal), to societal challenges, including widening access (Norway, the Netherlands, US and South Africa), and development of skills in the graduating population (Ireland, New Zealand and, from 2018, Portugal). Coupled with scarcity of resources, this has led to a culture of competition (Hazelkorn, 2015) where global rankings serve as a proxy for quality and attracting international students, and their fees, are explicit in the higher education policies of Singapore, Malaysia, South Africa and New Zealand.

Few countries in our sample had a policy explicitly addressing teaching and research in higher education, although Singapore has invested in developing teaching initiatives to support teaching and learning in HE, and others had, or were introducing requirements for higher education staff to have teaching qualifications (Russia, South Africa, Cyprus, and Ireland). Norway is perhaps closest in our sample countries to articulating in its higher education policy the explicit aim of supporting a teaching-research nexus. The 'Quality Culture in Higher Education' 2016-17 states the intention of putting student-teacher interaction at the heart of the university. This is concurrent with the operation of a strategy of separation of research-specialist institutions (Strategy 2014-19) from those specialising in applied science or professional education. Although there is teaching and research in all three types of higher education, it is not clear from the available policy documents how extensively the focus on student-teacher interaction applies. The data gathered through interviews with higher education senior managers at several of the countries included in the international policy scan is presented with the aim of illuminating how this plays out in practice.

### *Comparative Analysis and Narrative*

This section of the report summarises emerging themes and issues from the data gathered from both the policy scan and interviews with respondents in various institutions, internationally (see Table 7), which informed the analysis in this section. The selected excerpts from the interview data are indicative as it is accepted that the data cannot be viewed as representative of either the institution, where the data were collected, or the country in which the university is located. Consequently, the narrative that follows aims to highlight general issues, themes and challenges that emerge from this comparative analysis.

The narrative that follows captures similarities and differences, across the various settings, while highlighting some common challenges with respect to the teaching-research nexus. It considers a range of aspects that relate to, and influence, the teaching-research nexus across the various countries. These aspects include the



higher education policy context; national and local funding arrangements, institutional responses to the nexus and the barriers that mitigate against the integration of teaching and research. This section concludes with reflections on the findings and suggestions for future research.

## Emerging Themes

### *Policy and Funding*

In all the countries involved in this study, there were clear policy directives for higher education provision that encompassed a focus on teaching and research as related but largely separate functions. These policies varied from a general statement about the relationship between teaching and research to a more prescriptive and mandated policy commitment. For example, in Cyprus, at the policy level there is no clear policy directive that encourages a linkage between teaching and research, it remains a matter for individual institutions to decide the extent to which research plays a part in teaching.

In contrast, in Malaysia, the teaching-research nexus is presented in policy documents as an important mechanism to integrate research and teaching and as a way of developing high impact educational practices (HIEP)<sup>18</sup>. It is also an important dimension of the national policy framework (The Malaysian Education Blueprint for Higher Education 2015-2025) that dictates the way in which universities in Malaysia operate and function.

In terms of a policy orientation towards a nexus between research and teaching, the evidence reveals that there is general policy support, in most countries, towards the integration of teaching and research. In Russia, the Federal State educational standards on higher education (2012) regulate the selection of content and the main conditions of the teaching process. These standards indicate that students (even undergraduate) must conduct research. Yet, Russia has also introduced “national research universities” that receive more autonomy around governance and teaching. This development suggests a higher status for research over teaching. While the policy discourse in Russia proposes the integration of teaching and research, in practice there is no requirement or incentivisation to actively support this integration.

In other countries such as Australia, US, South Africa, Japan, and the Netherlands the national policies related to higher education provision offer no explicit policy stipulation about the nature and delivery of the teaching-research nexus but there is a general expectation, among those within higher education institutions, that teaching should be research informed (but not necessarily vice versa) and that there should be some relationship between teaching and research. As one respondent noted:

*There is no explicit policy statement, but it is expected that we provide our highest quality teaching by bringing in our research expertise’.*

In terms of funding arrangements for higher education, within the sample of institutions in the study, there was not an example of funding, at a national level, being directly aimed at strengthening the teaching-research nexus. In fact, funding arrangements for higher education in the countries in the study were either very clearly prioritising research over teaching or were organised in ways that contributed to a division between the two activities.

In New Zealand, all universities are public and there are two funding regimes. One based on per student funding and the other on research performance (performance-based research funding – PBRF). PBRF also publicly ranks institutions, so this inevitably influences resource allocation and the prioritisation of time.

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<sup>18</sup> <https://www.mohe.gov.my/en/download/awam/penerbitan/university-transformation-programme/186-the-unitp-orange-book/file>

There is a tertiary accreditation body (NZQA) for polytechnics, and CUAP for universities. Both have a quality-control function in terms of tertiary teaching. In policy terms, there is a clear focus on excellence in both teaching and research and this also features in the funding specifications. Respondents suggest, however, that universities in New Zealand tend to prioritise research over teaching.

Many funding priorities are indicative of a separation of teaching and research. In Russia, the largest share of centrally managed resource aimed at higher education is targeted at research rather than teaching. This is a strong signal throughout the system that research is valued far more than teaching, as resources are allocated predominantly in the direction of research. In Malaysia, there are no specific funding models that support the relationship between teaching and research, despite a clear policy aspiration that supports an integration. Instead, there are various internal and external research grants aimed at different research disciplines and a 'Higher Education Leadership Academy' where teaching and learning is the single focus. In Japan the "kakken" from Japanese government aims to support research but this is largely aimed at the sciences. A percentage of all research money coming into a university is then pooled. As one respondent noted:

*This helps to support other areas of research, such as in the humanities and social sciences, that have more difficulty securing funding. Collaboration is key – even if the person who secures the funding isn't in a position to use it, others can be brought onto a project to ensure it gets used effectively. There is no specific funding to support teaching.*

In the Netherlands, US, South Africa, and Australia, from the perspective of those working within higher education in these contexts, research is viewed as the core priority and securing research funding is the central imperative, thus creating, by default, a division between research and teaching. Issues about levels of funding and reducing resources also featured in many of the comments from respondents in the different settings:

*Funding for both research and teaching is decreasing, but there seems to be more money available for research. Funding for projects per hour is on average higher than teacher per hour.*

This privileging of research over teaching, is far more visible in Singapore, Russia, and Malaysia. Not only are there different types of universities, where the elite universities are research intensive, but there are also distinctively different research and teaching pathways for those working in higher education. In Singapore, there is the differentiated rating of research and teaching for faculty members who are in different career tracks. There is a tenure track and a non-tenure track. With such a differentiated approach, the central aim is to facilitate excellent research outputs while maintaining teaching expertise. The net result, however, is a different categorisation of staff and their early allocation into different developmental and promotion tracks.

It was noted in the interview responses that such a differentiated approach makes it far more challenging to strengthen the relationship between research and teaching. Instead, such a strong demarcation, reinforced by different career pathways, simply ensures that faculty members focus their work on either research or teaching. In Malaysia also, there are clearly defined pathways that offer those with teaching expertise and excellence a different route to promotion.

In Malaysia and Russia, unlike the other countries in this study, there are financial incentives and rewards for high quality publications. Researchers publishing in ISI quartile 1 journals receive a personal monetary reward. In Malaysia, this practice, since 2010, has significantly increased the quantity and quality of publications from higher education institutions within the country. Yet, the same financial incentivisation and imperatives do not exist for teaching. Consequently, for those working within higher education, in these contexts, there are monetary gains for research and research publications but little to be gained, in personal financial terms, from teaching.

In New Zealand, there are national Government prizes for teaching excellence and the Ako Aotearoa organisation which is Government funded, and this organisation funds research into teaching as well as providing professional development. The PBRF funding for research, highlighted earlier, however, is viewed as far more prestigious and is highly sought after by universities in New Zealand.

In universities in Australia, South Africa, US, New Zealand, and the Netherlands there is no personal financial benefit from research but evidently a great deal of reputational gain. There is a clear expectation, across higher education institutions within these countries, that both research and teaching excellence are required for progression, promotion, and tenure. Respondents noted that while teaching was valued it was research that drove the promotion process, hence research was far more highly valued and professionally important than teaching. As respondents from Japan and the US respectively noted:

*The spirit of a nexus is strong, but there's no real accountability for this. A lot of faculty development and teaching evaluations are just done for statistics, as there's no structural body to oversee a nexus.*

*At times there is a disconnect as better funded researchers do less and less teaching, and the teaching is taken up by less well-qualified staff, which can weaken the link. A lot of people see teaching and research as a dichotomy.*

This dichotomy between research and teaching is emphasised across all countries in the study by those working within the various institutions of higher education.

#### *Institutional Responses and Barriers*

At the level of the institution, it was clear that teaching and research, in some higher education contexts, were not expected to overlap or link and were channelled into different institutions or career pathways (Japan, Malaysia, Russia, and New Zealand). Singapore, despite efforts to promote integration, has not, as yet, achieved this goal. In other countries, there was evidence of some attempts to secure a stronger research-teaching relationship, but this mostly relied upon institutional directives or individual enthusiasm (Australia, South Africa, US, Cyprus, and the Netherlands).

Where there were attempts to integrate teaching and research, this took a variety of forms across the different institutions in the sample. Many respondents did not question the idea of *teaching-led research*, interpreting it instead as *research-informed teaching*. The following excerpts from interview notes and text sent by respondents highlight some of the ways in which an integration between teaching and research was manifest.

*All our courses are supposed to include at least one or two new areas every semester, which are based on our own research and/or research of our colleagues in the field. Therefore, whenever we work on our courses before the beginning of the semester, we need to renew at least some parts of it. Also, personally get a report from teaching staff, at the end of the year, telling me what's old/unnecessary and needs to be removed from a specific course, and then what's new and necessary and should be included for the next semester. In this way, the course content is kept at a reasonable volume so that students are not overburdened, and it is also renewed partially.*

The requirement to keep teaching updated was also more explicitly directed to incorporate research:

*The institution encourages faculty members to integrate research findings in their respective teaching areas. Our work integrates teaching and research in these ways:*

- (a) Issues identified in our research that pertain to student outcomes, teacher learning, teacher leadership, and curriculum innovation, help stakeholders achieve a better understanding of how*

*things are at the ground level. Our research team is an external eye that provides a more objective lens to school leaders and teachers on their evaluation and review of efforts.*

*(b) The sharing of findings at various stages of the study also helps to facilitate decision-making at the school level as they make changes to the curriculum.*

*We teach specific courses on curriculum design and implementation on the research sites and shared with participants our research findings.*

One respondent reflected on how teaching research served as a reminder to integrate research in other teaching:

*I teach a research course every year. Master's students in education who had little research background are the likely students. In this course, I focus on developing students' research skills (e.g., searching the literature, synthesizing previous research, developing a viable research question, constructing hypothesis, and designing an experiment) rather than content. In other courses, I integrated updated research into my teaching. Even without an explicit policy, there is an expectation for faculty members to bring research into teaching.*

And others reflected on their impressions of university values regarding an integration of teaching and research:

*At my university, research also seems to be valued higher. However, it is encouraged that you align your teaching and research as much as possible.*

*The university I am in has a policy that favours the model of the triple helix, demonstrating the interconnected nature of teaching, research and community engagement. This is the goal, but it does not always mean that staff experience a mutually supportive environment for teaching and research. Indeed, managing the competing pressures of teaching and research is the daily feature of academic life.*

The evidence, from many of the respondents in the study, coalesced around a viewpoint that there was an understanding of the need to connect, fundamentally, teaching and research along with some enthusiasm for doing so. In most institutions, in the study, the integration of teaching and research was generally, if lightly, encouraged and, in some cases, endorsed at the institutional level. The study found, however, that while integrating teaching and research was expected in certain countries (Australia, the Netherlands, US) it tended not to be explicitly resourced at the institutional level.

Further responses from participants in this study indicated that establishing linkages between teaching and research was predominantly an individual pursuit and was largely a matter of choice rather than an institutional requirement. As one respondent summarised:

*The strength of the teaching and nexus is down to individuals and how they integrate T and R -there is no incentive or reward for this.*

The findings not only reinforce the respondent's sense of increased work intensification but also highlight that creating or strengthening the teaching-research nexus is not a genuine institutional or individual priority. In most universities in the sample, the lack of a coherent institutional plan aimed at strengthening the teaching-research nexus resulted in variability of practice and fragmented individualised responses.

The research found a broad consensus, however, around the barriers that mitigated against building and strengthening a teaching-research nexus. The main barrier identified was adequate, targeted funding. The respondents noted, that in all cases, there were no additional funds to support the systematic integration of

teaching and research within universities. The lack of adequate funding and support was viewed by the respondents as a significant barrier.

Another barrier, identified by several respondents, was the process of promotion. For example, one respondent noted:

*While on paper, high quality teaching is one of the criteria for promotion, committees tend to look more at research output when promoting a candidate.*

Such signals within the system can be powerful in shaping beliefs, behaviours, and actions. Finally, the issue of time was highlighted by respondents as a significant barrier:

*The major obstacle is really the time factor for both research and teaching. Faculty members need to fulfil a certain number of teaching hours in each academic year. Plus, they need to undertake high quality research, but the available time is simply not there to do both well so one of them is demoted.*

The evidence at the institutional level indicates a willingness and, in some cases, a stated aspiration to strengthen the teaching-research nexus. At the individual level, however, the data would suggest that without a clear institutional plan of action that is well-resourced and supported, attempts to strengthen the nexus between teaching and research remain highly variable and heavily dependent on the enthusiasm and efforts of individuals.

#### *Reflections and Future Research*

Overall, the evidence points to a separation of teaching and research rather than an integration. In some cases (Singapore and Malaysia) the different tracks for teaching and research are actively exacerbating the separation. While many universities champion the need for a strong relationship between teaching and research, the funding arrangements send a radically different message that research is all-important.

There is no evidence, from the comparative study, of a systematic approach, at a national or institutional level, to integrate teaching and research in a deep, authentic and explicit way. The national or institutional aspiration of linking teaching and research is not reflected in practice. The evidence strongly suggests that research, not teaching, is still the central goal of the higher education institutions within this study. Teaching still tends to occupy second place in the mind-set of most academics.

As noted earlier, this is a small-scale investigation offering some insights from respondents across a range of universities in different countries. Further in-depth investigation is needed, therefore, to provide a more detailed account of the teaching-research nexus within an international context. It is proposed that a more extensive, empirical study (along the lines of Shin et al. 2014 and Carnell and Fung 2017) is now required to build upon the findings from this piece of research to further illuminate the teaching and research relationship, in different contexts and different settings.

#### *Discussion*

From the data in the UK arm of the project, two key themes of concord (jointly productive; not questioning) and discord (competing time pressures; questioning and doubt) have emerged and it is proposed that they offer a useful categorisation to reflect upon existing arguments about the teaching-research nexus. These categories are not contradictory; it is logically consistent to hold that teaching and research can positively enhance each other *and* that current expectations for both bring them into conflict. Throughout this report, the evidence has shown tensions and the push-and-pull at both the system level and the institutional level in higher education in the UK and overseas. The changing nature of higher education towards greater competition and increased internationalisation means that the teaching-research nexus, as a concept, may

be valued but the evidence from this report shows that their relationship is not only strained, but in some cases, completely severed.

As the following quote illustrates, the way universities are judged and evaluated places inevitable tensions upon the teaching-research nexus:

*It comes down to metrics - what is measured is what matters; as TEF has been introduced, focus on teaching feedback (NOT on teaching!) has become more important than REF - but this may change a little as the REF census point becomes closer. (temporary contract, balanced university)*

The national study indicates that while many academic staff believe a nexus of teaching and research in higher education does indeed exist or should exist, the day to day pressures and managerial compliance demands make prioritising the nexus very challenging. This is evident at all three types of university in our sample. Based on the data, we find the extant nexus to be perceived generally in one of two ways. Those who see concord in the nexus, and merit in the relationship, tend to view teaching and research as informing and enhancing each other as jointly productive academic practices. However, those who see discord in the nexus tend to view teaching and research as competing or conflicting pressures on their time. While these two dominant positions vary in degree, the evidence suggests that there is an acknowledgement of a teaching and research nexus that is either more positive or negative.

## Conclusion

In critically examining the teaching-research nexus in higher education both in England and Wales and internationally, this two-armed project contributes to the ongoing discussion and contemporary debate about the nexus. Internationally, there are widely varying interpretations of the nexus, with indications that policy makers in many countries are focused on university rankings (mostly for reasons related to competition and marketization) in pursuit of both teaching and research excellence, and evidence which suggests some financial prioritisation of research over teaching at policy level.

The international policy scan revealed that globally, the landscape of higher education is undergoing a process of massive change. This change has manifested itself in increased marketization and greater internationalisation. Universities are now competing on a global scale and the net result of this is intensification in the work of academics and the tendency to privilege research over teaching either implicitly or explicitly.

One result is the continuing separation of the two aspects, but increased pressure on staff to deliver both excellent research and excellent teaching. Senior management in universities internationally, as well as in England and Wales, expressed a view that the nexus is important and ingrained in higher education structures and practices. They also expressed concern that research continues to be valued over teaching, as evidenced in the form of various implicit and explicit reward systems for research, from hiring to promotion.

In many universities, there is an inherent separation of teaching and research evidenced by management structures and job descriptions. However, there are 'pinch points', notably at the level of individual academic practice, in which the assumption that the two can be mutually supportive overlooks the strenuous effort to do so when not supported by institutional structures. In addition, there is also evidence of an oversimplification of the idea of a nexus, and common misunderstandings surrounding what teaching-led/-based/-informed research means, often conflating it with research-informed teaching.

Most universities, whether in the UK or in other countries, still tend to focus their energies on research directing efforts towards evaluations which measure excellence, securing external funding, improving

university rankings, and establishing strong reputations as research centres of excellence. In the Humanities there is a strong tradition encouraging students' development as critical, independent citizens of the future Abbas et al (2016). It must be considered how national instruments evaluating research and teaching support this outcome for HSS students, or whether the competing requirements will risk taking the purpose of a higher education in another direction. Where universities' practices are reacting to competing requirements, there is a further risk that certain aspects of academic work will receive less attention, especially when performance is connected to funding. In this case, there are implications for the quality of teaching, the quality of research and, ultimately, the quality of student learning, in UK higher education.

Student learning is a significant consideration arising from this study, and is reflected in a May 2018 report by Kieron Rees, Policy Adviser for skills, schools and apprenticeships at Universities Wales, regarding a new consultation by the Welsh government. In the Welsh consultation document there are new "Learner Protection and Progression Plans" in the Regulation and Outcome Agreements intending to make available research funding for innovation that supports student learning. Rees sees this policy shift as positive in that it is more student-centred, but is concerned that any innovation connecting teaching and research is insufficiently understood. In common with many higher education policies in the international arm of this study, the Welsh approach is investing in the sector on the assumption that there is a connection between graduate numbers and national economic growth. In Boyer's (1990) terms, this leads to HE activity concentrated on *discovery* and *application*, perhaps to the detriment of *teaching*. In an era where a fragmentation of teaching and research seems to be growing, directing economic resources based on an unquestioned assumption regarding the role higher education has to play in national wealth could result in serious consequences for students.

The findings from this study suggest that there is increasing fragmentation rather than integration around the teaching research nexus and that, in 2018, the concept has become much more complex, multi-faceted and multi-directional. The findings in this report raise questions about whether, and in what ways, a relationship between teaching and research could be best forged, and who this would benefit. With relatively little evidence showing a dynamic, positive relationship between teaching and research, in addition to a lack of investment into its development, it could be concluded that focusing upon the nexus may not be a profitable exercise any longer and its pursuit may in fact be questionable. This is not to suggest that the nexus 'is dead' (McKenzie et al, 2018) or to argue that developing research-led or -informed teaching is not valuable. Instead, this report offers a reality check about the extent to which the teaching-research nexus, and the literature that accompanies it, accurately reflects, or appropriately represents the contemporary reality in higher education both in the UK and internationally.

## References

- Abbas, A., Abbas, J., Brayman, K., Brennan, J. and Gantogtokh, O. (2016). Teaching excellence in the disciplines. *Higher Education Academy*.
- Agência de Avaliação e Acreditação do Ensino Superior (2012): Criteria for the accreditation of study programmes – qualification of teaching staff. A3ES, Portugal
- Arango, M., Evans, S. & Quadri, Z. (2016). Education Reform in Chile Designing a Fairer, Better Higher Education System. Retrieved from [https://www.princeton.edu/sites/default/files/content/Chile%20Workshop%20Report\\_HigherEd%203.15.pdf](https://www.princeton.edu/sites/default/files/content/Chile%20Workshop%20Report_HigherEd%203.15.pdf)
- Australian Government Department of Education and Training. (2016a). 2016 National Research Infrastructure Roadmap. Retrieved from [https://docs.education.gov.au/system/files/doc/other/ed16-0269\\_national\\_research\\_infrastructure\\_roadmap\\_report\\_internals\\_acc.pdf](https://docs.education.gov.au/system/files/doc/other/ed16-0269_national_research_infrastructure_roadmap_report_internals_acc.pdf)
- Australian Government Department of Education and Training. (2016b). National Innovation and Science Agenda. Retrieved from <http://innovation.gov.au/page/agenda>
- Azman, N., Pang, V., Sirat, M., & Yunus, A. S. M. (2014). Teaching and research in Malaysian public universities: Synergistic or antagonistic? in Shin, J.C. Arimoto, A., Cummings, W.K., Teichler, U. (Eds.) *Teaching and Research in Contemporary Higher Education* Springer, Dordrecht.
- Basillote, L., Gradus, Y., Lamb, J., Sharoni, T. & Thng, M. (2016), *The “Global Schoolhouse”: Singapore’s Higher Education Aspiration*, Harvard Business School, Boston.
- Becher, T., & Trowler, P. (2001). *Academic tribes and territories: Intellectual enquiry and the culture of disciplines*: McGraw-Hill Education (UK).
- Bernstein, B. B. (2000). *Pedagogy, symbolic control, and identity: Theory, research, critique*: Rowman & Littlefield.
- Blackmore, P., & Blackwell, R. (2006). Strategic leadership in academic development. *Studies in Higher Education*, 31(3), 373-387.
- Booth, S., & Woollacott, L. (2018). On the constitution of SoTL: its domains and contexts. *Higher Education*, 75(3), 537-551. doi:10.1007/s10734-017-0156-7
- Boyer, E. L. (1990). *Scholarship reconsidered: Priorities of the professoriate*: ERIC.
- Brady, M. (2016). Neoliberalism, governmental assemblages, and the ethnographic imaginary. *Governing Practices: Neoliberalism, Governmentality and the Ethnographic Imaginary*, 3-31.
- Brennan, L., Cusack, T., Delahunt, E., Kuznesof, S., & Donnelly, S. (2017). Academics’ conceptualisations of the research-teaching nexus in a research-intensive Irish university: A dynamic framework for growth & development. *Learning and Instruction*. doi:<https://doi.org/10.1016/j.learninstruc.2017.10.005>
- Burke-Smalley, L. A., Rau, B. L., Neely, A. R., & Evans, W. R. (2017). Factors perpetuating the research-teaching gap in management: A review and propositions. *The International Journal of Management Education*, 15(3), 501-512. doi:<https://doi.org/10.1016/j.ijme.2017.08.004>



- Butler, N., & Spoelstra, S. (2014). The regime of excellence and the erosion of ethos in critical management studies. *British Journal of Management*, 25(3), 538-550.
- Cadez, S., Dimovski, V., & Zaman Groff, M. (2017). Research, teaching and performance evaluation in academia: the salience of quality. *Studies in Higher Education*, 42(8), 1455-1473. doi:10.1080/03075079.2015.1104659
- Capano, G. (2018). Policy design spaces in reforming governance in higher education: the dynamics in Italy and the Netherlands. *Higher Education*, 75(4), 675-694.
- Carnell, B., & Fung, D. (Eds.). (2017). *Developing the Higher Education curriculum: research-based education in practice*. London: University College London Press.
- Casanovas-Rubio, M. d. M., Ahearn, A., Ramos, G., & Popo-Ola, S. (2016). The research–teaching nexus: using a construction teaching event as a research tool. *Innovations in Education and Teaching International*, 53(1), 104-118. doi:10.1080/14703297.2014.943787
- Chapman, D. W., & Lindner, S. (2016). Degrees of integrity: the threat of corruption in higher education. *Studies in Higher Education*, 41(2), 247-268. doi:10.1080/03075079.2014.927854
- Charles, M. (2018). Teaching, in Spite of Excellence: Recovering a Practice of Teaching-Led Research. *Studies in Philosophy and Education*, 37(1), 15-29. doi:10.1007/s11217-017-9568-1
- Cotton, D. R. E., Miller, W., & Kneale, P. (2017). The Cinderella of academia: Is higher education pedagogic research undervalued in UK research assessment? *Studies in Higher Education*, 1-12. doi:10.1080/03075079.2016.1276549
- Crawford, R. (2015). *History of tertiary education reforms in New Zealand* Retrieved from <https://www.productivity.govt.nz/sites/default/files/nzpc-rn-2016-1-history-of-tertiary-education-reforms.pdf>:
- Cummings, W. K., & Shin, J. C. (2014). 'Teaching and research in contemporary higher education: An overview' in Shin, J.C. Arimoto, A., Cummings, W.K., Teichler, U. (Eds.) *Teaching and Research in contemporary higher education* Springer, Dordrecht.
- Cyprus Agency of Quality Assurance and Accreditation. (2018).
- Department for Higher Education and Training. (2017). *Report on the evaluation of the 2015 universities' research output*. Retrieved from <http://www.dhet.gov.za/Policy%20and%20Development%20Support/Report-2015-Research-Outputs-final-version.pdf>
- Department of Education and Skills. (2011). National Strategy for Higher Education to 2030 (Ireland).
- Department of Education and Skills. (2016). Ireland's national skills strategy.
- Department of Higher Education and Training. (2014). Report of the Ministerial Committee for the review of the funding of universities. Retrieved from <http://www.dhet.gov.za/Financial%20and%20Physical%20Planning/Report%20of%20the%20Ministerial%20Committee%20for%20the%20Review%20of%20the%20Funding%20of%20Universities.pdf>
- Duff, A., & Marriott, N. (2017). The teaching–research gestalt: the development of a discipline-based scale. *Studies in Higher Education*, 42(12), 2406-2420. doi:10.1080/03075079.2016.1152465

- Education, audiovisual and culture executive agency (2012) Higher Education in the Russian Federation. Retrieved from [http://eacea.ec.europa.eu/tempus/participating\\_countries/overview/russia\\_country\\_fiche\\_final.pdf](http://eacea.ec.europa.eu/tempus/participating_countries/overview/russia_country_fiche_final.pdf)
- Elken, M., & Wollscheid, S. (2016). The relationship between research and education: typologies and indicators. A literature review. Oslo, Norway: Nordic Institute for Studies in Innovation, Research and Education (NIFU).
- Elton, L. (2001). Research and teaching: conditions for a positive link. *Teaching in higher education*, 6(1), 43-56.
- Enders, J., & De Weert, E. (2004). Science, training and career: Changing modes of knowledge production and labour markets. *Higher Education Policy*, 17(2), 135-152.
- Englund, C. (2018). *Teaching in an age of complexity: exploring academic change and development in higher education*. (PhD), Umea University, , Umea. Retrieved from <http://urn.kb.se/resolve?urn=urn:nbn:se:umu:diva-144536>
- European Commission. (2006). Tempus Country Profile. Retrieved from <http://www.euroeducation.net/prof1/usa.htm>
- European Commission. (2014). Horizon 2020: programme overview.
- European Commission. (2016). ERA Progress report: Portugal. Retrieved from [http://ec.europa.eu/research/era/pdf/era\\_progress\\_report2016/country\\_fiches/era-pt.pdf](http://ec.europa.eu/research/era/pdf/era_progress_report2016/country_fiches/era-pt.pdf)
- European Commission. (2017). After Horizon 2020.
- European Commission. (2018). Economic performance and forecast: Cyprus.
- Bologna Declaration, (1999).
- European Higher Education Area. (2000). Home page. Retrieved from <http://www.ehea.info/>
- Leuven/Louvain-la-Neuve: Beyond the Bologna process, (2009).
- European Network of Quality Assurance in Higher Education. (2000). ENQA: HE Quality Assurance agency home page.
- European Union. (2005). European qualifications framework.
- European Union. (2012). European Research Area home page.
- European Union. (2017). National student fee and support systems in Higher Education in Europe 2016-17.
- Fanghanel, J., McGowan, S., Parker, P., McConnell, C., Potter, J., Locke, W., & Healey, M. (2016). *Defining and supporting the Scholarship of Teaching and Learning (SoTL): a sector-wide study.(Literature review)*. Retrieved from York, UK:
- Farcas, D., Bernardes, S. F., & Matos, M. (2017). The research-teaching nexus from the Portuguese academics' perspective: a qualitative case study in a school of social sciences and humanities. *Higher Education*, 74(2), 239-258. doi:10.1007/s10734-016-0046-4

- Fernando, M. & McLean, P. (2010). Embedding notions of community in the teaching-research nexus: A case study. In M. Devlin, J. B. Nagy & A. M. Lichtenberg (Eds.), *Research and Development in Higher Education: Reshaping Higher Education*, Higher Education Research and Development Society of Australasia (HERDSA) Annual International Conference (pp. 289-299). Milperra, NSW: Higher Education Research and Development Society of Australasia.
- Forstenzer, J. (2016). *The Teaching Excellence Framework: What's the Purpose?* Retrieved from <http://eprints.whiterose.ac.uk/127959/1/TEF-Whats-the-Purpose-booklet-Josh-Forstenzer%281%29.pdf>
- Fung, D. (2017a). Strength-based scholarship and good education: The scholarship circle. *Innovations in Education and Teaching International*, 54(2), 101-110. doi:10.1080/14703297.2016.1257951
- Fung, D. (2017b) *A connected curriculum for higher education* (182pp). UCL Press.
- Fursova, V., & Simons, G. (2014). Social problems of modern Russian higher education: the example of corruption. *International Education Studies*, 7(10), 25-31.
- Gourlay, L., & Stevenson, J. (2017). Teaching excellence in higher education: critical perspectives. *Teaching in Higher Education*, 22(4), 391-395. doi:10.1080/13562517.2017.1304632
- Government of New Zealand. (2014). *Tertiary Education Strategy 2014-2019*. <http://www.education-newzealand.org/universities-and-higher-education/universities-and-higher-education/>.
- Gunn, A. (2017). Critical debates in teaching research methods in the social sciences. *Teaching Public Administration*, 35(3), 241-259. doi:10.1177/0144739417708837
- Hancock, P., Marriott, N., & Duff, A. (2017). Research-teaching yin-yang? An empirical study of accounting and finance academics in Australia and New Zealand. *Accounting & Finance*, n/a-n/a. doi:10.1111/acfi.12257
- Harland, T. (2016). Teaching to enhance research. *Higher Education Research & Development*, 35(3), 461-472. doi:10.1080/07294360.2015.1107876
- Hazelkorn, E. (2015). *Rankings and the reshaping of higher education: The battle for world-class excellence* (2nd ed.). Basingstoke, Hampshire and New York, NY: Palgrave Macmillan.
- Higher Education Infrastructure Review. (2015). Higher Education Infrastructure Working Group Final Report 2015. Retrieved from [https://docs.education.gov.au/system/files/doc/other/higher\\_education\\_infrastructure\\_working\\_group\\_final\\_report.pdf](https://docs.education.gov.au/system/files/doc/other/higher_education_infrastructure_working_group_final_report.pdf)
- Hsieh, C.-C., & Huisman, J. (2017). Higher education policy change in the European higher education area: divergence of quality assurance systems in England and the Netherlands. *Research Papers in Education*, 32(1), 71-83. doi:10.1080/02671522.2015.1129645
- Interdepartmental Committee on Science, Technology and Innovation. (2015). *Innovation 2020*.
- Jones, S. (2013). Beyond the teaching-research nexus: the Scholarship-Teaching-Action-Research (STAR) conceptual framework. *Higher Education Research & Development*, 32(3), 381-391.
- Kerr, C. (1972). *The Administration of Higher Education in an Era of Change and Conflict*: ERIC

- Kim, Y., Horta, H., & Jung, J. (2017). Higher education research in Hong Kong, Japan, China, and Malaysia: exploring research community cohesion and the integration of thematic approaches. *Studies in Higher Education*, 42(1), 149-168.
- Kimoto, N. (2015). Gender Bias: What Has Changed for Female Academics? In *The changing academic profession in Japan* (pp. 89-102). Springer, Cham.
- Kivistö, J., Pekkola, E., & Lyytinen, A. (2017). The influence of performance-based management on teaching and research performance of Finnish senior academics. *Tertiary Education & Management (Routledge)*, 23(3), 260-275. doi:10.1080/13583883.2017.1328529
- Kuckartz, U. (2014). *Qualitative text analysis: A guide to methods, practice and using software*. Sage.
- Leišytė, L. (2016). New public management and research productivity – a precarious state of affairs of academic work in the Netherlands. *Studies in Higher Education*, 41(5), 828-846. doi:10.1080/03075079.2016.1147721
- Lim, F. C. B. (2009). Education hub at a crossroads: The development of quality assurance as a competitive tool for Singapore's private tertiary education. *Quality Assurance in Education*, 17(1), 79-94.
- Lloyd, D. (2009) Blind Faith in Teaching-Research Nexus, *The Australian (Melbourne)*, 25 February 2009, 23.
- Lo, W. Y. W. (2014). Think global, think local: The changing landscape of higher education and the role of quality assurance in Singapore. *Policy and Society*, 33(3), 263-273.
- Looi, C. K., So, H. J., Toh, Y., & Chen, W. (2011). The Singapore experience: Synergy of national policy, classroom practice and design research. *International Journal of Computer-Supported Collaborative Learning*, 6(1), 9-37.
- Macfarlane, B. (2011). The morphing of academic practice: Unbundling and the rise of the para-academic. *Higher Education Quarterly*, 65(1), 59-73.
- Malaysian Education Blueprint (2015). Malaysian Education Blueprint 2015-2025 (Higher Education) *Ministry of Higher Education, Malaysia*.
- Mayring, P. (2000). Qualitative content analysis. *Qualitative Social Research*, 1(2), Art. 20.
- McKenzie, A., Griggs, L., Snell, R., & Meyers, G. D. (2018). The Myth of the Teaching-Research Nexus. *Legal Education Review*, 28(1), 2.
- McNay, I. (2015). Learning from the UK Research Excellence Framework: ends and means in research quality assessment, and the reliability of results in Education. *Higher Education Review*, 47(3), 24-47.
- Meld. St. 7 Report to the Storting (white paper) (2014–2015) Long-term plan for research and higher education 2015–2024) Ministry of Education and Research, Norway.
- Meld. St. 16 Report to the Storting (white paper) (2016-2107) Quality Culture in Higher Education, Ministry of Education and Research, Norway
- MEXT (2012). Higher Education in Japan. Retrieved from [http://www.mext.go.jp/en/policy/education/highered/title03/detail03/\\_\\_\\_icsFiles/afieldfile/2012/06/19/1302653\\_1.pdf](http://www.mext.go.jp/en/policy/education/highered/title03/detail03/___icsFiles/afieldfile/2012/06/19/1302653_1.pdf)

- Ministry of Education, Culture and Science (2014) 2025 Vision for science: choices for the future. The Hague: The government of the Netherlands Retrieved from <https://www.government.nl/documents/reports/2014/12/08/2025-vision-for-science-choices-for-the-future>.
- Ministry of Education and Skills. (2016). Higher education system performance framework, Ireland.
- Mitten, C., & Ross, D. (2016). Sustaining a commitment to teaching in a research-intensive university: what we learn from award-winning faculty. *Studies in Higher Education*, 1-14. doi:10.1080/03075079.2016.1255880
- National forum for the enhancement of teaching and learning in higher education. (2015). Teaching and learning in Irish higher education: A roadmap for enhancement in a digital world (2015-2017).
- National forum for the enhancement of teaching and learning in higher education. (2016). National Professional Development Framework for all Staff who Teach in Higher Education.
- Neumann, R. (1992). Perceptions of the teaching-research nexus: A framework for analysis. *Higher Education*, 23(2), 159-171.
- Norton, A., & Cakitaki, B. (2016). *Mapping Australian Higher Education*. Retrieved from <https://grattan.edu.au/wp-content/uploads/2016/08/875-Mapping-Australian-Higher-Education-2016.pdf>:
- Nurse, P. (2015). *Ensuring a successful UK research endeavour: A Review of the UK Research Councils (BIS/625)*. Retrieved from <http://dera.ioe.ac.uk/24753/1/BIS-15-625-ensuring-a-successful-UK-research-endeavour.pdf>:
- O'Connell, C. (2018). Examining differentiation in academic responses to research impact policy: mediating factors in the context of educational research. *Studies in Higher Education*, 1-16. doi:10.1080/03075079.2018.1447556
- OECD. (2017). Economic surveys and country surveillance. Retrieved 14th March 2018
- Oravec, J. A. (2017). The manipulation of scholarly rating and measurement systems: constructing excellence in an era of academic stardom. *Teaching in Higher Education*, 22(4), 423-436. doi:10.1080/13562517.2017.1301909
- Pells, R. (2018). Research-focused universities take the lead in Chile. *Times Higher Education*. Retrieved from <https://www.timeshighereducation.com/news/research-focused-universities-take-lead-chile>
- Portuguese Ministry of Science, Technology and Higher Education (2018). HE, Research and Innovation Portugal: Perspective 2030. Retrieved from <https://www.portugal.gov.pt/pt/gc21/area-de-governo/ciencia-tecnologia-e-ensino-superior>
- Quality and Qualifications Ireland. (2016). Quality in an era of diminishing resources: higher education in Ireland, 2008-2015.
- Robertson, J. (2007). Beyond the 'research/teaching nexus': exploring the complexity of academic experience. *Studies in Higher Education*, 32(5), 541-556.
- Rose, H. & McKinley, J. (2018). Japan's English medium instruction initiatives and the globalization of higher education. *Higher Education*, 75(1), 111-129.

- Rudd, T. (2017). Teaching Excellence Framework (TEF): Re-examining its Logic and Considering Possible Systemic and Institutional Outcomes. *Journal for Critical Education Policy Studies (JCEPS)*, 15(2), 59-91.
- Russian Ministry of Education and Science. (2013a). Project 5-100. Retrieved from <http://5top100.com/about/more-about/>
- Russian Ministry of Education and Science. (2013b). State programme for the development of science and technology 2013-2020. Retrieved from <https://xn--80abucjiibhv9a.xn--p1ai/документы/4696>
- Russian Ministry of Education and Science. (2013c). Universities as innovators. Retrieved from <https://xn--80abucjiibhv9a.xn--p1ai/проекты/вузы-центры-инноваций>
- Ryan, V. L. (2016). *Redefining the Teaching-Research Nexus Today*. Retrieved from <https://profession.mla.hcommons.org/2016/11/01/redefining-the-teaching-research-nexus-today/>
- Saunders, D. B., & Blanco Ramírez, G. (2017). Against 'teaching excellence': ideology, commodification, and enabling the neoliberalization of postsecondary education. *Teaching in Higher Education*, 22(4), 396-407. doi:10.1080/13562517.2017.1301913
- Schreier, M. (2014). Qualitative content analysis. In Flick, U. *The SAGE handbook of qualitative data analysis* (pp. 170-183). London: Sage.
- Scott-Clayton, J. (2018). *The looming student loan default crisis is worse than we thought*. Retrieved from <https://www.brookings.edu/wp-content/uploads/2018/01/scott-clayton-report.pdf>
- Shin, J. C., & Kim, Y. (2017). 'The Teaching and Research Nexus Under Research University Initiatives: A Comparative View for East Asia; Springer, Cham.
- Shin, J. C., Arimoto, A., Cummings, W. K., & Teichler, U. (2014). Teaching and research in contemporary higher education. *Berlin: Springer*, 9, 1-394.
- The President's national planning commission. (2012). National development plan 2030 : our future - make it happen. Retrieved from <https://www.gov.za/sites/default/files/Executive%20Summary-NDP%202030%20-%20Our%20future%20-%20make%20it%20work.pdf>
- Tight, M. (2016). Examining the research/teaching nexus. *European Journal of Higher Education*, 6(4), 293-311. doi:10.1080/21568235.2016.1224674
- Trowler, P. (2014). Depicting and researching disciplines: strong and moderate essentialist approaches. *Studies in Higher Education*, 39(10), 1720-1731. doi:10.1080/03075079.2013.801431
- Trowler, P., & Wareham, T. (2007). *Reconceptualising the teaching-research nexus*. Paper presented at the Proceedings of the Annual HERDSA Conference 2007: Enhancing Higher Education Theory and Scholarship. 8-11 July, Adelaide, Australia.
- Zajda, J. (2016). Reforms in Higher Education in the Russian Federation: Implications for Equity and Social Justice. In J. Zajda & V. Rust (Eds.), *Globalisation and Higher Education Reforms* (pp. 149-159). Cham: Springer International Publishing.

## Appendix

### *Information sheet and consent form*

#### **FACT SHEET: An exploration of the Teaching-Research Nexus in Humanities and Social Sciences in Higher Education** funded by the British Academy

##### Aim:

This two-armed project (international and UK) aims to critically explore the existing evidence base, and address evidence gaps, related to a possible relationship between teaching and research in higher education. Focused on academic work in the humanities and social sciences, the project particularly seeks to address the gap in the literature related to the ways that teaching can contribute to research.

##### Methodology for international project:

A **comparative study of international HE policy** aims to critically examine international trends in policies and practices affecting the relationship between research and teaching in higher education. A desk-based scan of policies in our sample of countries will inform the design of semi-structured interviews with a HE and policy maker stakeholders.

##### Methodology for UK project:

An initial **scoping exercise** will be informed by an integrative literature review of the most recent research into the teaching-research relationship in higher education. A **UK national survey** will then be undertaken, using semi-structured **interviews** of approximately 30-40 minutes with university senior managers (the interviews will be audio recorded for transcription purposes only), and an online **questionnaire**, to collect the perceptions of academic staff at 9 UK universities. This data will support a critical examination of the higher education architecture shaping the relationship between teaching and research in England and Wales today.

##### Anticipated outcomes:

The British Academy will publish a report of the findings, and the study will be used to develop further publications and research outputs by members of the University of Bath research team. The identities and data of all participants and institutions will be protected in all anticipated outcomes.

##### Reviewing this project:

The British Academy working group is made up of eight leading academics based in the UK with expertise in (higher) education, linguistics, psychology, and religion, among other areas. The study meets the approval of the University of Bath's ethics procedure.

##### Who to contact with questions/concerns:

Project team: Dr. Jim McKinley (PI) [j.mckinley@bath.ac.uk](mailto:j.mckinley@bath.ac.uk)

Prof. Alma Harris

Dr. Michelle Jones

Dr. Shona McIntosh

Dr. Lizzi Milligan [e.m.a.milligan@bath.ac.uk](mailto:e.m.a.milligan@bath.ac.uk) (project team member and UoB Ethics Officer)

Rebecca Wise [R.Wise@bath.ac.uk](mailto:R.Wise@bath.ac.uk) (University of Bath Social Sciences Ethics Committee Secretary)

**PARTICIPANT Consent form**

STUDY TITLE: **An exploration of the Teaching-Research Nexus in Humanities and Social Sciences in Higher Education**

RESEARCHER DETAILS: Dr Jim McKinley (P.I.), Professor Alma Harris, Dr Michelle Jones, Dr Shona McIntosh, Dr Lizzi Milligan, Department of Education, University of Bath

PURPOSE OF STUDY: You are invited to participate in a research project that is designed to investigate perceptions of relationships between teaching and research in higher education

YOUR DATA: Your data will not be identifiable to you or your institution. It will be kept securely and only seen by members of the research team.

		Place a "Y"
1	I have read the fact sheet, and had the opportunity to ask questions.	
2	If I asked questions, I have received satisfactory answers.	
3	I understand that my participation is voluntary and I am free to withdraw at any time, without reason, and without any adverse consequences or penalty.	
4	(For the UK scoping study) I understand that raw data from the interview and questionnaire will only be available to the University of Bath researchers and the British Academy working group.	
5	(For interviewees) I understand that my interview will be audio recorded and transcribed and I can decline to be recorded or stop the recording once started.	
6	(For interviewees) I understand that, on receiving a copy of the transcription to review, I can withdraw my participation or ask that sections of the transcript be redacted.	
7	I understand that every measure will be taken to anonymise the data, identifying universities only by type (UK arm), or by country (international arm).	
8	I understand that the data will be stored in password protected electronic files, and that they will be deleted three years after publication of the research.	
9	I understand that data from the project will appear in a British Academy report and may appear in academic journals and conference papers, but the researchers will take steps to ensure this data will not be identifiable to me or my university.	
10	I understand how to raise concerns with the researchers or make a complaint directly to the University of Bath Social Sciences Ethics Committee Secretary.	
11	I would like to review a draft of any publications to check I am satisfied that I will not be identifiable.	

Name of Participant: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## *Questionnaire*

### **An exploration of the Teaching-Research Nexus in Humanities and Social Sciences in Higher Education**

This questionnaire investigates academics' perceptions of the relationship between teaching and research in UK universities. It focuses on academics working in the humanities and social sciences across career stages. It is part of an international British Academy-funded research project run by researchers in the Department of Education at the University of Bath.

Ethical and data protection information: Your participation is voluntary. While completing the questionnaire, you may withdraw at any time, without reason, by exiting the webpage. Withdrawing after completion is not possible as your questionnaire is not uniquely identifiable. Only the University of Bath project team and the British Academy working group will have access to questionnaire responses. Compliant with University ethics, data will be stored in password protected electronic files and anonymised. Any data appearing in reports or academic papers will not be identifiable to you or your university. Please address further questions to the Principal Investigator: Dr Jim McKinley [j.mckinley@bath.ac.uk](mailto:j.mckinley@bath.ac.uk)

\* Required

Please tick the box below to indicate that you have read the information above and that you consent to the use of data as outlined. \*

#### **Section A**

1.a. At which university do you currently work?

1.b. Is your current contract: \*

Teaching only

Research only

Both teaching and research

We'd like you first to think about the teaching aspect of your academic work

2.a. Which of these do you consider to be teaching activities that you have undertaken in the 2017/18 academic year? \*

Designing teaching materials

Face to face teaching

Formative assessment

Preparation for teaching

Online teaching

Summative assessment

Keeping up to date with current research

Supervision of dissertation students on taught programmes

Conference attendance

Public engagement

Supervision of postdoctoral research students

2.b. Is there anything that you consider to be a teaching activity that you have recently undertaken that has not been mentioned?

Now, we'd like you to think about the research aspect of your academic work.

3.a. Which of these do you consider to be research activities that you have undertaken in the 2017/18 academic year? \*

Supervision of dissertation students on taught programmes

Applying for funded research projects

Supervision of postdoctoral research students

Conference attendance

Writing and publishing

Working on unfunded research projects

Developing new ideas

Public engagement

Working on funded research projects

Keeping up to date with current research

3.b. Is there anything else that you consider to be a research activity that you have recently undertaken that has not been mentioned?

4. Thinking about your teaching activities, which, if any, are closely connected with your research activities? Please give examples if applicable

5. And, thinking about your research activities, which, if any, are closely connected with your teaching activities? Please give examples if applicable

## **Section B**

We'd now like you to think about managing your teaching and research activities.

6.a. Overall, how far do you think your teaching and research activities overlap in your academic work? \*

Very much 1 – 4 Not at all

6.b. Please explain your answer:

7.a. And, how far do you think that your teaching and research activities support each other? \*

Very much 1 – 4 Not at all

7.b. Please explain your answer:

8. Teaching and research are often assumed to be connected in higher education. How do you understand them to relate to each other based on your academic work? \*

9. What do you understand by the term 'teaching-informed research'? \*

### Section C

We'd now like to ask you about the influences on your academic work.

10. In your opinion, at your university, which aspects of academic work are prioritised? \*

Teaching – Research – Both – Neither – Don't know

At the departmental (or equivalent) level

At the faculty (or equivalent) level

At the university level

For staff on probation

In promotion applications

At the departmental (or equivalent) level

At the faculty (or equivalent) level

At the university level

For staff on probation

In promotion applications

11. In what ways do you consider these priorities to be an enabler or hindrance to how you manage your academic work? Please give examples of any particular processes and resources. \*

12.a. Thinking about your answers to the questionnaire, how far do you think that they have been influenced by any of the following:

The recent TEF \*

Very much 1 – 4 Not at all

Your stage of career: \*

Very much 1 – 4 Not at all

The upcoming REF \*

Very much 1 – 4 Not at all

Recent industrial action in HE \*

Very much 1 – 4 Not at all

The wider political environment (e.g. Brexit) \*

Very much 1 – 4 Not at all

Your type of contract \*

Very much 1 – 4 Not at all

12.b. Please explain your answers:

13. What are the main motivations for your academic work?

And finally, are there other aspects to your academic work that relate to teaching and/or research that have not been covered in this questionnaire? Please briefly note these here if there are.

### **Personal details**

15. Which of these best describes your career status: \*

I have held a permanent academic job for five years or less

I have held a permanent academic job for between six and fifteen years

I have held a permanent academic job for sixteen years or longer

I am on a temporary academic contract

16. In which of the following disciplines does the majority of your work sit? \*

Social Sciences

Humanities

Arts

Health and Social Care

STEM

17. If you are happy to do so, please state your gender

18. If you are happy to do so, please state your ethnicity

19. If you are happy to do so, please state your country of birth