Academic Career Advancement:
Academic Career Scripts and their Role Models

Adam Keeley, BSc, MSc

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School of Business, Maynooth University

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Head of School: Prof Joseph Coughlan

Supervisors:

Prof Peter McNamara

Dr Olga Ryazanova

Declaration

I, Adam Keeley, as the author of this thesis, hereby declare that, except where duly acknowledged, this thesis is entirely my own work and has not been submitted for any degree or qualification in any other university or country.

Signature _____

Date _____

Acknowledgements

Thinking back over the last few years, it is easy to focus on the difficult days and long hours spent on this research, but it would be disingenuous of me not to focus on and acknowledge the positive impact this experience has had on me whether it be my skill development or the impact of those directly or indirectly involved.

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Table of Content

Table of Tables

Table of Figures

Table of Appendices

Abstract

This thesis explores academic career advancement to understand institutions' performance expectations and the clarity of their communication. I leverage signalling theory to advance the literature on academic career scripts by revealing the sources of signal noise that might influence individuals' interpretation of these scripts. The thesis aims to assist individual faculty seeking career advancement by helping them make sense of ambiguous communication for various career pathways.

The thesis is split into three interconnected empirical studies (Chapters 2-4). Chapter 2 explores an institution's needs signalled via their promotion documents. Examining these signals, I conceptually argue that they are influenced by institutions' need for universal performance policies to address short- and long-term strategic objectives. Chapter 3 moves beyond signalled expectations to examine the career script role models signalled after career advancement decisions have been made by institutions. Chapter 4 examines the teaching dimension of the academic career script, focusing on the level of exposure of this component of the script among PhD students and ECAs.

The thesis findings show that promotion criteria signals are consistently ambiguous and that the career script role models signalled when career advancement decisions are made are inconsistent. This suggests a changing nature of institutions' needs and individual interpretation. Overall, the performance of career-advanced individuals does not align at the rank, institution, or regional level. This questions the assumption of a system of common academic ranks as a foundation of academic career scripts. The literature also revealed that PhD graduates have limited exposure to the teaching component of academic career scripts. This is problematic because just several years post PhD graduation, institutions expect high levels of teaching excellence for career advancement.

Chapter 1. Introduction

The academic career is quite unique concerning what drives one's progression to more senior ranks. While teaching- and research-active academics are employed at higher education institutions, much of the career capital developed and their standing within their discipline relies on networks and associations that are external to the institution (Garcia-Carbonell, Guerrero-Alba, Martin-Alcazar, & Sanchez-Gardey, 2021). For example, faculty utilise external networks and associations to establish co-authorships, acquire research skills, expand their understanding of pedagogical innovation, and develop international reputations. The difficulty for individuals, however, is aligning this career capital with internal performance expectations. To aid individuals overcoming this difficulty, the performance of individual faculty (Ryazanova & Jaskiene, 2022; Aguinis, Cummings, Ramani, & Cummings, 2020) and its alignment with the expectations of the institution has been of great interest in the academic career management literature (Mantai & Marrone, 2023; Stratford, Watson, & Paull, 2023; Zacher, Rudolp, Todorovic, & Ammann, 2019).

While researchers debate what performance activities are most important for career advancement, institutions have additional concerns that may influence their decision-making, which are sometimes overlooked within these debates. For institutions, the decision to award a faculty member with advancement in rank not only carries prestige and accomplishments for the individual but leads to an increase in salary and for some, permanent employment. The institution's career-advancing decisions are also influenced by its strategic needs to stay competitive and the industry's evolving definition of academic excellence. It is claimed that the institution's increased focus on performance metrics is blamed on its shift to neoliberalism (Marginson & Yang, 2023), which decreases its purpose on knowledge generation (Croucher & Lacy, 2022). However, one could also argue that institutions need to communicate performance outcomes to several

stakeholders and to achieve this, they need to translate this performance into a measurable metric understood by all.

Regardless of which perspective an individual holds, there has been a push by the academic community over the last several years to move away from performance metrics and establish alternative evaluations of performance that focus on peer review (Sugimoto and Lariviere, 2018). Sugimoto and Lariviere (2018) have argued that the institution's reliance on performance metrics is likely driven by economic pressures and that for many, there is a misuse between the purpose of the metric and its use by institutions. To aid in this shift away from performance metric dominance, The American Society for Cell Biology created the Declaration of Research Assessment (DORA) (Cagan, 2013). The goal of this assessment was to move institutions away from the over-reliance on research metrics, such as journal impact factors, as a proxy of research quality for hiring, promotion, and funding decisions to more sophisticated and meaningful approaches. This resulted in 18 recommendations categorised for funding agencies, institutions, publishers, and researchers (DORA, 2013). While it was initially created for the medical sciences, there has been an ongoing push to expand its use across several disciplines. A first large-scale study of UK institutions to assess if DORA has started moving the needle on performance metrics has found that there remains a strong correlation between journal ratings and expert evaluations (Morgan-Thomas, Tsoukas, Dudau, and Gaska, 2014).

This leads to a situation where two parties (i.e., an individual faculty and the career-advancing institution) who are equally responsible for signalling the academic career script to prospective faculty have their own intentions but must find common ground where individuals can perform as per the expectations of their discipline and where the institution can respond to the external market pressures. The challenge, however, is the tension that exists between the institution and the individual on how the performance in an academic career should be measured. The objective of this thesis is to

explore the written and role-modelled career script signals institutions send to faculty seeking career advancement. Overall, this thesis provides improved structure and clarity to a causally ambiguous process that is academic career advancement. This is accomplished in two ways. Firstly, it provides a greater understanding of institutions' performance expectations for faculty. This clarity addresses many of the claims in the literature that one or another performance criterion is the key driver for academic advancement. Secondly, it highlights the uniqueness of the academic career, as due to how inconsistent it is, it presents several career script role models indicating various pathways to a desired career outcome. This questions any assumptions that certain career decisions can lead to an automatic career outcome.

Throughout the thesis, the conceptual arguments are underpinned by the theoretical lenses of career scripts and signalling theory. Signalling theory enables the exploration of communication between two parties (Spence, 1973). For example, when one party (the signaller) has more information than another party (the receiver) and is communicated via a channel (a signal) (Connelly, Certo, Ireland, & Reutzel, 2011). For academic career advancement, institutions signal initial performance expectations that are received by individual faculty who make career decisions to meet these expectations. Through the lens of signalling theory, it is possible to examine the communication of performance expectations and signalled career scripts by the institution. In doing so, some clarity can be achieved regarding these expectations and the career-advancement decisions made by institutions.

Career scripts act as a guide for individuals seeking future positions (Laudel, Bielick, & Gläser, 2019; Barley, 1989). As a result, individuals use career scripts to guide their career decision-making in the hopes of achieving a new career position (Van Helden, Den Dulk, Steijn, & Vernooij 2023; Whitechurch, Locke, & Marini, 2021). Career scripts are defined as being co-determined by the institution's needs and the individual's

interpretation (Laudel et al., 2019). Using this definition, the thesis argues that the performance expectations of an institution (i.e., its needs) communicated through its promotion documents present a *written career script*. For institutions, this written career script is heavily influenced by the strategic needs of the institution, the diversity of academic disciplines, and the autonomy inherent to the academic career. The thesis also argues that the performance achievements of individuals who have just been awarded career advancement by an institution serve as *signalled career script role models* for that rank at that institution. This is because career advancement decisions are a result of the institution's needs and the individual's interpretation of these needs. The thesis's final key argument is that for individual faculty to succeed with career advancement, they must first be exposed to all elements of a career script if they are to meet the expectations they will face for career advancement (i.e., *career script exposure*).

The following sections of this thesis consist of three studies (i.e., Chapters 2-4) that explore four research questions that build on each other. The first two research questions are,

1. *What are the promotion criteria signalled by institutions via their written career scripts?*
2. *How ambiguous are these signalled promotion criteria?*

These questions are centrally addressed in Chapter 2. Drawing upon the career script literature and signalling theory I seek to describe the promotion policies of 183 institutions from six countries. I find 41 specific criteria that are regularly used in promotion policies, leading to a career script that can be categorised into eight major themes: research publication, two teaching categories, three service categories, student support and achievements. I explore the complex milieu of promotion policies that differ in terms of clarity and ambiguity of benchmarked expectations within and between categories, institutions and regions. Using career scripts and signalling theory as

theoretical lenses I seek to explore the implications of this diversity in career scripts for individuals seeking to navigate the promotion process.

The third research question is,

3. *How consistent are the rank-changing decisions signalled by institutions?*

This question is centrally addressed in Chapter 3. Using signalling theory, I seek to offer insights into how the outcomes of rank-changing decisions create individual role model scripts. Each person awarded a change in academic rank becomes a practical illustration of the promotion policies of the university in practice. People observe these models and make assessments on how, at a practical level, the institution interpreted its own career script in practice by changing the academic rank of an individual. I collected a dataset of 561 individuals who changed academic rank within 101 institutions to empirically explore academic career role model scripts. Using public sources, I was able to consistently capture data on the research and service elements of their career script, whilst teaching was not consistently observable.

The fourth research question is,

4. *To what extent are early career academics exposed to the teaching component of the academic career script?*

I address this question in Chapter 4. Chapter 2 identified that teaching is a central aspect of all promotion documents, whilst Chapter 3 found that teaching aspects of the career script are not consistently observable from public sources. Teaching is a central aspect of the career script, yet it is not a core focus of external in-depth communication by institutions, nor is teaching a central focus of the educational training of academics from undergraduate, taught postgraduate, or doctoral education. I use a systematic literature review to explore the state of knowledge on the experiences of doctoral students and early career academics training and support in becoming a competent and effective third-level educator.

Following these studies, Chapter 5 will discuss the findings of the thesis as well as their conceptual and practical implications.

To address the first two research questions, Chapter 2 examines a set of promotion documents (i.e., written career scripts) to identify the signals these written scripts send to individuals seeking career advancement. To achieve this, I applied content analysis to a set of promotion documents gathered from public higher education institutions from Ireland, the UK, the US, Canada, New Zealand, and Australia. From this analysis, I found that the performance expectations of an institution can be classified under eight key categories that expand beyond the generalised activities of research, teaching, and service. However, these performance categories are consistently ambiguous as they often do not contain explanations, definitions, or benchmarks for how the individual should measure or interpret them. This is due to the predominantly qualitative nature of the academic performance expectations.

This study adds to the career script literature by providing insights into an institution's needs that shape a career script. The identification of an institution's needs allows me to expand the current academic career management literature by providing distinct promotion criteria categories and measures used by institutions when awarding career advancement.

Following the exploration of written career scripts, the second research question was explored in Chapter 3 where I examine the career script role models signalled by institutions when they award career advancement to an individual. To achieve this, I examined the research and service of individuals who had a change of rank from the sample of institutions used in Chapter 2. The analysis shows that career advancement decisions are continuously inconsistent with one another as they are made against various academic performances. This inconsistency is identified across rank, region, and institution. This chapter shows that institutions do not award career advancement in a

linear fashion (i.e., consistent increases in performance do not automatically lead to career progression). Rather, academic career advancement is a good example of the equifinality principle as various career script role models signalling to individual faculty that there are several pathways to career advancement.

The study in this chapter contributes to the literature on career scripts by challenging the idea that career scripts rarely change. This has practical implications as individuals need to be aware of this inconsistency when using career scripts to guide career decisions.

The third research question was addressed in Chapter 4 where I set out to explore the teaching dimension of the academic career script. To achieve this, a systematic literature review was conducted to identify the teaching experiences of PhD students and early career academics (ECAs). This study found that both PhD students and ECAs have limited exposure to the complete career script as they have been exposed to little or no teacher training. This lack of training leads them to two potential scenarios. Firstly, they may be unaware of the importance of teaching if they are seeking an academic career. Secondly, if they are aware of its importance, they may lack the knowledge and processes to build the required teaching skills to meet the expectations of the institution. While the study signals that institutions neglect teacher training, we know from Chapter 2 that their expectation of teaching competencies at the time of career advancement is equal to that of research and service. This expectation does not match how ECAs see themselves (i.e., novice teachers), as institutions seek educational leaders and innovators.

Following the completion of the systematic literature review, the study will have identified the extent of a PhD student and ECAs teaching capabilities as well as any solutions proposed to resolve this issue. The identification of this challenge for junior academics has direct implications for the career script and PhD graduate employment literature. Junior academics facing challenges meeting the expectations of new roles

highlight the lack of exposure to the complete academic career script. This calls into question the assumption the career script literature makes whereby they state that individuals know the career scripts relevant to them. It also impacts PhD graduate employment research as this lack of exposure is likely to influence the career pathways these individuals take or deem available to them.

Chapter 2. Written Promotion Policies as Career Scripts: Navigating Clarity, Ambiguity and Diverse Signals.

Introduction

Academics seeking advancement in their career must meet institutional promotion criteria, that is, teaching effectiveness, research productivity, and service to the institution, profession, business, and community (Wiley, Wallingford, Monllor-Tormos, & Konyu-Fogel, 2016). However, uncertainty exists in how institutions grant promotion and how individuals interpret promotion criteria (Lissoni, Mairesse, Montobbio, & Pezzoni, 2011; Jolson, 1974). Due to this ambiguity, Thanassoulis and colleagues (2018) call for further clarity surrounding academic promotion criteria.

The challenge that a lack of clarity surrounding promotion decisions causes is that promotion criteria present individuals with what Barley (1989) calls a career script (or, more specifically, a written career script) that represents the strategic needs of the institution (Mu & Hatch, 2021). Career scripts act as a blueprint for a particular career/position (Barley, 1989) and are co-determined by an institution's need and individual interpretation (Laudel et al., 2019). A difficulty arises when the institution's signalled written career script is deemed unclear by individuals. Such signal clarity issues (Connelly et al., 2011) may lead individuals to interpret institution-specific information about the workings and decision-making of the institution inconsistently (Ehrhart & Ziegert, 2005).

We know that career scripts influence individuals' actions (Cappellen & Janssens, 2010) and allow them to navigate the institution's written career scripts (Whitchurch et al., 2021). The literature also provides insights into how signalling is used to resolve information communication challenges between the institution and the individual during recruitment and selection (see Pernkopf, Latzke, & Mayrhofer, 2021; Ryazanova, McNamara, & Aguinis, 2017). However, institutions are faced with a different set of

challenges when promoting individuals versus recruiting them. Due to the universal nature of higher education institutions performance policies to respect academic independence (Lott, 2023) and discipline diversity (Anania & Caruso, 2013; Bager-Elsborg, 2019; Fraser, Deng, Bruno, & Rashid, 2020), institutions may have to be strategically ambiguous in their policy communication (Eisenberg, 2007).

This may create tension between the communication of the institution's needs and the individual interpretation of their needs for career advancement as we know less about how to interpret written career scripts or the nuances of signalling within the context of academic promotions. By providing greater insights into higher education institutions' expectations signalled via its written career script (i.e., promotion criteria), this study addresses Thanassoulis and colleagues' (2018) call for clarity regarding academic promotions. This exploration also aids faculty in interpreting an institution's written career script (i.e., promotion criteria). To achieve this, I will address the following research questions,

1. *What are the promotion criteria signalled by institutions via their written career scripts?*
2. *How ambiguous are these signalled promotion criteria?*

We know that academic career scripts are co-determined by an institution's needs and individual interpretation (Laudel et al., 2019) which shapes an individual's career-related behaviours and decision-making (Van Helden et al., 2023). We also know that an academic career is influenced by productivity in the areas of research, teaching, and service (Horta & Santos, 2023; Mu & Hatch, 2021; Aguinis et al., 2020; Ryazanova & McNamara, 2019). However, these two branches of research focus more on career-advancing processes or generalised measures that contradict one another. They do not address the nuances that influence an institution's decision to award career advancement. As a result, we do not know the needs of higher education institutions as communicated

through specific research, teaching, and service performance expectations via written career scripts (i.e., promotion documents).

Addressing this study's research question will contribute to the literature on academic careers with a particular focus on the career script. This is achieved through the identification of the institution's needs that shape the academic career script signalled via its promotion policy documents. These results will provide faculty seeking career advancement with a set of promotion criteria upon which these decisions are based. In doing so, this study progresses the academic career management literature by moving away from generalised productivity categories or anecdotal accounts by providing individuals with empirical interpretations of an institution's formally communicated needs in the form of promotion criteria.

Conceptual Background

Signalling in Academia

One of the core conceptual frameworks addressing communication challenges between an organisation and its employees is signalling theory (Spence, 1973). It explains how one party (the signaller) communicates information (the signal) to another party (the receiver) in situations of information asymmetry (Connelly et al., 2011). While it was initially developed to look at signalling during recruitment (where applicants signal their skills to employers, and employers signal the attractiveness of their jobs to potential applicants), it has been extensively used to explore a range of organisational issues such as signalling for external financial resources (Steigenberger and Wilhelm, 2018), signalling between corporate headquarters and subsidiaries (Taj, 2016), how mixed signals affect employer attractiveness (Pernkopf et al., 2021), and signalling research quality to international labour markets (Ryazanova et al., 2017). A key aspect of the theory is that where signals have been appropriately communicated, they can be described as providing clarity whereby the "signal is unambiguous and has a known cause, is

measurable, is not open to dual interpretation, and has lesser noise due to a strong causal attribution" (Deb, 2013: 100). However, when signals suffer from clarity issues, they create higher levels of ambiguity surrounding their meaning for the receiver (Park & Patel, 2015). For example, where there is an unclear signal regarding the fit of the individual with the organisation, they are unlikely to be hired, even if this job candidate possesses and expresses capabilities and attributes for the job (Galperin, Hahl, Sterling, & Guo, 2020).

The goal for many signallers is to create clear signals that avoid confusion for the receiver (Connelly et al., 2011). During employee recruitment, a key objective is to send accurate signals to attract quality candidates for open vacancies (Banks et al., 2019). A challenge for organisations is that potential applicants interpret organisational signals from various channels such as social media (Carpentier, Van Haye, & Weijters, 2019), word of mouth (Ahamad, 2019), and organisational activities, e.g., corporate social responsibility endeavours (Celani & Singh, 2011). In doing so, they assess the attractiveness of an employer and a possible organisational fit between the individual and the organisation. Failure to provide accurate and clear signals to potential and new employees may result in a disconnect between the new employee and the organisation, leading to higher levels of dissatisfaction and turnover (Phillips & Gully, 2015; Phillips, 1998; Breaugh, 1983). Additionally, organisations are seeking candidates who can address the current needs of the institution. Communicating clear and explicit signals enables them to attract the candidate(s) that best meet the needs of the institution.

Academic promotions, however, are faced with a different set of challenges compared with the recruitment process. An academic promotion system can be characterised as what Arrieta and Shrestha (2023) describe as equifinality whereby the outcome (career advancement in this situation) can be achieved via various pathways and conditions. Unlike the recruitment process, academic promotion systems may send

ambiguous signals (via universal policies) to facilitate an equifinality system. That is, signal ambiguity may be an intentional choice during academic promotions so that higher education institutions can provide individuals with the opportunity to achieve advancement via a pathway that best suits their career goals and disciplinary norms.

Higher Education Institutions Performance Policies

Higher education institutions' performance is an aggregation of performance delivered by their business-level units (i.e., schools/departments) (Naderi, 2022; AI-Turki & Duffuca, 2003). The challenge for institutions is that these departments must not only align with the institution's expectations but also derive their reputational capital from alignment with discipline-specific third-party requirements. These can be national and international accreditation bodies, such as the Teaching Council of Ireland or the Association to Advance Collegiate Schools of Business (AACSB) (Reddy, Sharma, & Narain, 2024). Other such powerful third parties are those setting the standards for journal quality, such as the Chartered Association of Business Schools (CABS) (Walker, Fenton, Salter, & Salandra, 2019), or those compiling discipline-specific rankings, such as Financial Times with its MBA and master's programme rankings.

The challenge for an institution's management is the coordination of departments to align with external discipline expectations and delivery of its strategic needs. This complexity spans several business-level units where institutions must create organisational policies that enable departments to achieve the institution's objectives but do not hinder them from aligning with multiple external academic bodies. This results in a need for universal policies and procedures so that they apply to all the institutions' departments. In addition to aligning strategic objectives, institutions must also consider academic independence and the diversity of discipline performance.

Faculty Independence

When designing promotion policies, institutions must consider two unique aspects of the academic career. Firstly, the development of academic career capital is partially done outside of the institution and secondly, academics are afforded academic freedom, meaning they can create and shape their careers in ways that align with their values.

As academics develop their career, they begin developing academic human capital external to their initial employment as research knowledge develops at the PhD stage and research skills develop across the academic field (Garcia-Carbonell et al., 2021). The human capital developed from these activities is then used by the institution to achieve firm performance (Toole & Czarnitzki, 2009).

For several developed countries, academic freedom has been part of national law since the mid-1940s. This freedom provides academics with legal protection in some parts of the world to express arguments and agendas without influence, direction, or punishment from those in authority (Vogtle & Windzio, 2024; Olsson, 2023; Spannagel, 2023). However, it is a more widely defined concept. For example, Lott (2023: 5) uses the Academic Freedom Index (AFI) to define it as "freedom to research and teach, the freedom of academic exchange and dissemination, the institutional autonomy of higher education institutions, campus integrity, and freedom of academic and cultural expression". This definition moves beyond just published research and instead, it also covers how individual academics teach, express themselves, and interact with each other and wider society. Academic freedom is however far from perfect and has led to situations where researchers have been sued based on their research (Barnes, 2019). It has also been argued that academic freedom is being diminished by journal rankings and their influence over the types of phenomena pursued (Tourish, 2011). Nevertheless, it has become a legislated institutional policy in many countries (Lott, 2023). As a result, institutions need to create promotion models that do not hinder an academic approach to their overall

performance, whether it be their teaching approach, type of research or its socialisation and dissemination. As a result, institutions must create a promotion policy that encompasses the independence and flexibility awarded to academics through academic freedom.

Discipline Diversity

The creation of widely applicable promotion policies is also heavily influenced by the diversity that exists across academic disciplines. Whether it be teaching or research, disciplines have unique approaches that make them difficult to compare. From a research perspective, the Life and Hard Sciences have been found to have higher research quantity (Bonaccorsi, Daraio, Fantoni, Folli, Leonetti, & Ruocco, 2017) and high median impact factor journals (Anania & Caruso, 2013) than their Social Science and Humanities colleagues. Even within academic science groups, differences are identified. For example, while Social Sciences have been found to contain high numbers of journal article publications compared to the Humanities, this is driven by select disciplines, such as Criminology, Educational Sciences, Psychology, and Sociology (Engles, Ossenblok, & Spruyt, 2012).

From a teaching perspective, a faculty member's approach to teaching is influenced by their discipline and its rules, norms, and expectations (Bager-Elsborg, 2019). This diversity in teaching extends to topics such as its understanding of critical thinking and the value and development of teamwork skills (Krause, 2014) amongst others. Differences have also been identified across disciplines regarding funding models and their impact on society. For example, Natural Sciences and Engineering and Technology are found to have strong commercial funding links in comparison to other disciplines while also positively impacting their publications and citations (Musico, Ramaciotti, & Rizzo, 2017). In comparison, Medicine has been found to have a strong impact on practice (Fraser, Deng, Bruno, & Rashid, 2020). This discipline diversity

means institutions must create promotion policies that are generic enough to incorporate these disciplinary differences.

To conclude, higher education institutions are presented with the difficult challenge of providing academics with their legally protected academic freedom while also being answerable to stakeholders. This creates scenarios whereby individuals can pursue career performance that is mainstream or niche and can present their case of how their performance meets the expectations of the institution. An institution must then translate this individual performance, fuelled by academic freedom and disciplinary diversity, into institutional performance metrics so it can be understood by a variety of stakeholders.

Strategically Ambiguous Higher Education Institution Signals

A key objective for institutions is to utilise faculty productivity to achieve their strategic needs and remain competitive. However, Eisenberg (2007: 8) asks "how can cohesion and coordination be promoted while at the same time maintaining sufficient individual freedom to ensure flexibility, creativity, and adaptability to environmental change?". Within academia, higher education institutions may create unique promotion policies to achieve institutional strategies, respond to market demands (Mu & Hatch, 2021), or possible external environmental threats. For example, higher education institutions recently needed to adapt to the coronavirus pandemic. Banerjee-Batist and colleagues (2022) found that academic leaders had to continuously adapt their decision-making as they responded to a new work environment (i.e., online teaching, work-from-home employees, and restricted travel for research-active faculty). While the scale of disruption and needed change may have felt unrepresented, it has been stated that "COVID is not the first or last but just one in the sequence of accelerating grand crises" (Laasch, Ryazanova, & Wright, 2022: 1) that higher education institutions will need to adapt to. The possible consequences of this are a continuing shift regarding the definition

of “excellence” and a growing situation whereby “there is no single [Promotion and Tenure] system that is appropriate for all institutions” (Mu & Hatch, 2021: 295) as they try and respond to external factors impacting their organisation.

One way in which organisations operate and respond to volatile landscapes is by using strategic ambiguity. Strategic ambiguity is defined as “the deliberate use of ambiguity in strategic communication to create a ‘space’ in which multiple interpretations by stakeholders are enabled and to which multiple stakeholder responses are possible” (Davenport & Leitch, 2005: 1604). The application of strategic ambiguity spans multiple contexts and has been explored from individual and organisational perspectives. From an employee perspective, Sumelius and colleagues (2020: 530) explored the impact of strategic ambiguity on communicating status to talent. Their study found that the use of strategic ambiguity harmed the “conceptualisation, implementation, and effectiveness of Talent Management”. From an organisational perspective, Marie Cappelen and Strandgaard Pedersen (2021: 240) found that strategic ambiguity can be used by organisations to “create and use historical narratives that are elusive and flexible enough to resonate with multiple groups yet sufficiently specific to appear plausible and authentic”.

To summarize, strategic ambiguity provides institutions with an opportunity to motivate employees while also allowing them to respond to the competitive environment (Eisenberg, 2007). As a result, while unclear and ambiguous communication during the recruitment of faculty may impact the quality of applicants received, ambiguous communication may be strategic during the promotion process. It may allow organisations to promote individuals whose performance aligns with the labour market working definition of excellence and which drives forward the institution's strategy, while also protecting academic freedom and respecting discipline diversity.

Performance Management of Academic Careers

For institutions, an academic's performance focuses on research output, teaching quality, and service involvement to the institution, profession, business, and community (Wiley et al., 2016). Using these performance metrics, institutions assess faculty on an individual basis against their academic promotion policies to determine whether advancements in rank are appropriate. While academic ranks can vary by institution and region, Baruch and Hall (2004) offered a table (see Table 1) that compared academic titles across the UK, Australia, and North America.

Table 1 shows the slight variations in academic ranks across regions and similarities with the entry-level ranks being Lecturer/Assistant Professor and the top rank being Professor. However, the table provides no insights into the work allocation, recruitment, and employment security associated with these ranks and regions.

Table 1. Academic Rank Comparison Across Regions

UK universities	**UK former polytechnic**	**Australian universities**	**North American universities**
Professor	Professor	Professor	Professor
Reader / Senior Lecturer	Reader / Principal Lecturer	Associate Professor / Professor	Professor
Lecturer B	Senior Lecturer	Senior Lecturer	Associate Professor
Lecturer A	Lecturer II	Lecturer	Assistant Professor
	Lecturer I	Assistant / Associate Lecturer	Instructor

Jepsen and colleagues' (2014) exploration of academic careers from an international perspective showed the importance of exploring work allocation, recruitment, and employment security as there are distinct differences among countries. In their study, they found that while teaching loads are slightly lower for research-active faculty, the amount of teaching an individual is involved in can be influenced by employment contracts, regulations, or seniority. For example, the authors found that for UK academics, teaching hours per year can range from 100 to 300 hours while the Netherlands requires teaching to be approx. 50% of an academic working time. In comparison, it was found that US institutions base teaching loads on employment contracts while China applies teaching allocation based on seniority (i.e., Full Professors will have a lower teaching load than Assistant and Associate Professors). Finally, the authors found that the teaching loads among ranks have the least variance in Germany as it is regulated by the government. In addition to teaching, Jepsen and colleagues (2014) found that the application of tenure also differs per country. For example, the Netherlands does not tie tenure to positions, instead, Associate and Full Professorships are publicly advertised. In comparison, tenure-track and tenured positions in France are easier to obtain as they are not as secure as they are in other countries.

Although higher education institutions signal promotion criteria via their promotion documents, faculty see these criteria as subjective. Sherif and colleagues (2020) cite Arthur, Claman, and DeFillippi (1995) and use their intelligent career framework to understand academic career success. Their study showed that the success factors influencing academic careers are the individual's "know-why", "know-how", and "know with whom" knowledge that can then be used for career advancement. This framework expresses the individual's knowledge of their relevant work community, the socially valued knowledge of this community, and the identification of those who can aid

in delivering your career objectives. In other words, progression lies in the individual's knowledge of the community and the key figures within that community.

In a similar study, Nastesjo (2023) found that ECAs rely on verbal expressions of success to communicate alignment with the institution's reward systems. This is done through identity talk in the form of achievement talk (i.e., signalling achievements and competitiveness), authenticity talk (i.e., signalling a genuine self), and loyalty talk (i.e., signalling social ties and helpfulness) to navigate institutional norms and award structures. This state of belief in one's accomplishments is especially important for female academics developing their academic identity as they rely upon a 'state of being and becoming' a successful academic (Barnard, Rose, Dainty, & Hassan, 2021). This is due to increased levels of imposter phenomenon early in their career compared to their male counterparts.

Higher Education Institutions Promotion Criteria

While exploring the specific promotion criteria institutions seek for career advancement, Lindgreen and Di Benedetto (2022) note that it is important for those who wish to achieve tenure and promotion to balance and prioritize research, teaching, and service as these activities act as the basis for promotion decisions. Their advice ranges from developing original and "outrageous" research, securing funding, improving teaching quality, and "staying relevant" (Lindgreen & Di Benedetto, 2022: 1). They also advise individuals seeking promotion to familiarize themselves with their institution's specific promotion requirements as they can differ slightly from one institution to another. While they express a balanced approach to academic productivity, this view is not consistent in the literature.

In an exploration of career development among ECAs, Hollywood and colleagues (2020) found that they believe research and not teaching will drive academic career development. This view is also shared by Baruch and Hall (2004) who claimed that

publications and an international research reputation are key academic progression criteria. Examining promotion from a regional perspective does not provide any additional clarity. For example, Lissoni and colleagues (2011) found that France and Italy operate with research productivity being the determining factor for career advancement to senior positions. Jepsen and colleagues (2014) found a similar approach by Chinese universities, who predominately based academic promotion on publications, specifically, top-rated English language journals. In the UK, pre-1992 educational reform institutions (also known as "old" universities) relied heavily on research productivity when awarding advancement to senior ranks (Parker, 2008). In comparison, post-1992 institutions (also known as "new" universities) were more supportive of teaching during the promotional process (Parker, 2008). In what may have been an attempt to create several academic pathways, Australian universities have created teaching-focused senior academic ranks driven by a teaching career path (Vardi & Quin, 2011). In an approach that deviates from other regions, Indian universities have been known to base academic progression on longevity rather than performance (Jepsen et al., 2014).

The challenge that a differing regional approach to academic promotions creates is noted by Goodacre and colleagues (2021) who claimed that academic productivity benchmarks presented by some regions (e.g., the UK and the US) may not aid individuals in other regions. While researchers may debate the specific performance dimension most sought after by institutions, the specific performance expectations of faculty remain unclear. For example, an evaluation of new tenure and promotion procedures at a Swedish higher education institution found that while the institution sought “excellence” across research, teaching, and service, no standard performance was provided, meaning “that excellence could solely be determined at insiders discretion” (Helgesson & Sjogren, 2019: 572).

From the review of the literature, it can be concluded that faculty members must show contributions in each of the three classifications (research, teaching, and service) to the promotion committee. It can, however, be argued that what constitutes "contribution" or even “excellence” is ambiguous and may differ by rank, institution, and region. This is due to the subjective or qualitative metrics used to assess academic performance. For faculty, the dominance of quantitative approaches in academic career management research can be challenging to translate into qualitative institutional expectations. For example, several studies advise individuals to achieve higher levels of external research income (Ayoubi, Pezzoni, & Visentin, 2019; Clark, Hirsch, Jensen, & Webster, 2016; Benavente, Crespi, Garone, & Maffioli, 2012) public research contracts (Alonso-Borrego, Romero-Medina, & Sanchez-Mangas, 2017), industry funding (Banal-Estanol, Jofre-Bonet, & Lawson, 2015), and consultancy (Fudickar, Hottenrott, & Lawson, 2018) as it has positive effects on the volume of research published. Additionally, they advise caution regarding the level of teaching (i.e., undergraduate, postgraduate, and graduate teaching) an individual is involved in as it impacts the levels of research output achieved (Horta, Dautel, & Veloso, 2012; Taylor, Fender, & Burke, 2006; Fox & Milbourne, 1999). This quantitative approach to career management might be influenced by the belief that higher education institutions have been taken over by neoliberalism and are no longer focused on the public good (Marginson & Yang, 2023) or knowledge generation (Croucher & Lacy, 2022).

While these studies provide invaluable insights into the academic career because they reveal general trends, it is difficult for individuals to align their findings with the subjective career advancement measures previously mentioned. For example, what volume of research translates to excellence in research or an international research reputation? This leaves us to wonder about the use of qualitative versus quantitative measures to assess academic performance by institutions during the promotion process.

Academic Career Scripts

The uncertainty surrounding academic career advancement, specifically promotion criteria, is a challenge for individual faculty who develop their careers by making continuous career-related decisions that affect their direction (Kulcsar, Dobrean, & Gati, 2020; Bimrose & Mulvey, 2015). For academics, these career-related decisions are often guided by the institution's promotion criteria, i.e., teaching effectiveness, research productivity, and service to the institution, profession, business, and community (Wiley et al., 2016). Barley (1989) describes such actions as an individual aligning with the institution's career script. Career scripts are defined as a set of resources, interpretative schemes, and norms that shape the actions of individuals in organisations (Barley, 1989). Laudel and colleagues (2019) go further by defining career scripts as embedding interpretative schemes, collectively shared interpretive schemes, and collective scripts. The influence of career scripts has been shown by Cappellen and Janssens (2010) who found that the script presented by organisations influenced the actions of individuals as well as an individual's reflection upon career decisions to date. Whitechurch and colleagues (2021) also found that individuals use their internal career scripts (i.e., personal strengths, interests, and commitments) to navigate the institution's signalled career script. To summarise, career scripts provide individuals with greater insights into career positions. This insight then influences the career decision-making of individuals as they try to position themselves within the career script they wish to achieve (Laudel et al., 2019).

A limitation of career script research is that the concept of scripts has not been used consistently and is somewhat ambiguous (Laudel et al., 2019). Researchers may begin with Barley's (1989) definition, but many later view them "not as an intermediary between institutions and individual actions but as either an institution or an individual interpretative scheme" (Laudel et al., 2019: 936). Simply put, in these studies, career

scripts originate from the institution or individual rather than a combination of both. As a response, Laudel and colleagues (2019: 938) present an alternative explanation of career scripts whereby they are “not as institutionally determined but as co-determined by institutions and (mutually observed) individual actions enacting them.”. This refined definition describes career scripts as the outcome of institutional needs and individual interpretation. Using this refined definition, Van Helden and colleagues (2023) found that the academic career script is seen as a pathway to career progression as they act prescriptively (i.e., encouraging some behaviours) and proscriptively (discouraging negative behaviours).

In this study, I build on Laudel and colleagues' (2019) refined definition that career scripts are co-determined by the institution’s needs and individual interpretation as well as the influence that an institution has over the career decisions of individuals, and in turn the resulting career script (Van Helden et al., 2023; Barley, 1989). I argue that the institution signals its needs via its promotion criteria as a written career script (i.e., a promotion document). This written career script is signalled to influence the career decisions of individuals so that their behaviour is more aligned with the needs of the institution. The institution's promotion decisions are further influenced by internal and external factors that they must respond to.

From the previous sections, we know that institutions may communicate in ambiguous ways to achieve strategic objectives, protect academic freedom, and respect discipline diversity. We also know that during academic promotion, faculty performance is influenced by the promotion criteria the institution communicates via promotion policy documents. However, this has led to a possible tension between the written career scripts signalled by the institution and how they are interpreted by the individual. While I have shown why institutions may need to take this approach, this explanation does not aid individuals seeking academic career advancement. This is especially true when there is a

misalignment between advice offered by the academic career management literature, the findings of regional academic promotion criteria studies, and explanations of how career scripts can influence career decisions. To help lessen the tension between the communication of an institution's needs and the individual's interpretation of these needs, this study will address two research questions:

1. What are the promotion criteria signalled by institutions via their written career scripts?

2. How ambiguous are these signalled promotion criteria?

Research Design

The focus of this study is to identify what are the written career script signals sent by institutions and how ambiguous are they. To achieve this, I collected promotion policy documents from 183 institutions across 6 countries. To extract the promotion criteria from these documents and assess the signal's clarity/ambiguity, I applied Coe and Scacco's (2017) quantitative content analysis to the promotion documents used by institutions. I then used frequency counts to identify trends in signals from a rank and regional perspective. I used both the content analysis and frequency counts to determine the promotion criteria sought by institutions and used Deb's (2013) definition of signal clarity to assess the level of ambiguity of the identified criteria.

Population

Promotion policy documents have been gathered from public higher education institutions that are teaching- and research-focused in Ireland, the UK, Australia, New Zealand, Canada, and the US. I used the Times Higher Education (THE) World University Rankings 2020 list to identify institutions in these countries as well as the THE "Top 100 public universities in the US" list (Times Higher Education, 2019). The US sample was gathered from two lists as, unlike the other regions, their country ranking list contains both public and private institutions. As a result, only US public institutions were extracted

from the THE US World University Rankings 2020 list and combined with THE's Top 100 public universities in the US list. van Nes and colleagues (2010) have found that meaning can be lost when translating data during the interpretation phase even when a professional translator is used. As a result, I chose to focus on promotion policy documents from English-speaking countries only to avoid the possibility of misinterpreting meaning within the data during and after translation.

The THE World University Rankings 2020 list was used to build the study's sample as each institution that appears on this list must satisfy three criteria: 1. Publish a sufficient number of academic papers over five years (this threshold is currently set at 1,000), 2. Teach undergraduates, and 3. Work across a range of subjects (Times Higher Education, 2018). As a result of these criteria, each institution on the rankings list can be classified as a multi-discipline teaching- and research-focused higher education institution. A summary of the study's population can be seen in Table 2.

Table 2. The Population of Institutions Across the 6 Regions

Country	Source	Population
Ireland	THE 2020 World University Rankings	9
United Kingdom	THE 2020 World University Rankings	100
Australia	THE 2020 World University Rankings	37
New Zealand	THE 2020 World University Rankings	8
Canada	THE 2020 World University Rankings	31
United States*	THE 2020 World University Rankings & THE "Top 100 public universities in the US" list	142
Total		***327***

**The US is the only region with a THE 2020 World University Rankings that contains both public and private institutions. As a result, only public institutions were extracted from their country list and combined with the Times Higher Education "Top 100 public universities in the US" list.*

Data Collection

Gathering promotion documents involved searching each institution's website for documents detailing the criteria faculty need to fulfil to achieve the rank of Senior Lecturer up to and including Full Professor. Data collection began by Google searching the keywords institution name and faculty promotion (e.g., University of Reading faculty promotion). This returned direct links to the institution's human resources or Provost pages containing promotion policy documents. Some institutions did not return direct webpage links, so their institution's website was manually searched to locate the promotion policy documents.

The aim was to obtain documents that detailed the academic activities (teaching, research, and service) and the required level of performance (e.g., good reputation, innovation, internationally recognized, quantities, amongst others) that faculty need to demonstrate to achieve an advancement in rank. Several institutions provide promotion through multiple pathways (e.g., 1. teaching and scholarship, 2. research, and 3. teaching and research, amongst others). To achieve consistency across all promotion documents collected, only criteria for the teaching and research pathway were gathered.

Additionally, some US institutions provide combined criteria for tenure and promotion while others provide separate criteria. Where tenure and promotion criteria were not separate, the joint tenure and promotion document was collected and where it was separate, the promotion-only document was gathered. While Irish, UK, Australian, and New Zealand universities provide university-wide promotion criteria that apply to all departments and schools, US and Canadian institutions provide general guidance to each department and school, allowing for some tailoring to suit each discipline. These tailored promotion documents for US and Canadian documents are held behind institutional logins, limiting my ability to access them. To complete a cross-regional analysis of the documents, I gathered university-level promotion documents from all institutions. To

improve the data collection success rate from institutions in the UK, Australia, and New Zealand, emails were sent to these institutions, seeking assistance in obtaining university-level promotion documents. This approach resulted in collecting 20 additional promotion documents.

Sample

Following the above data collection process, I successfully collected documents from 183 institutions (inclusive of the 20 institutions from the email approach mentioned previously) which amounts to a 56% data collection success rate from the population. When completing the data collection process, I sought promotion policies that assisted faculty in career advancement. The process resulted in the collection of 379 individual rank promotion policies. Table 3 provides an overview of the data collected.

Table 3. Promotion Documents Collected

Country	Population	Data collected	Data collection success rate	Policy by rank (unit of analysis)
Ireland	9	7	78%	17
United Kingdom	100	62	62%	139
Australia	37	22	59%	54
New Zealand	8	7	88%	18
Canada	31	15	48%	30
United States	142	70	49%	121
Total	***327***	***183***	***56%***	***379***

Data Analysis

Content analysis was used to analyse the data as it can "[render] the rich meaning associated with organisational documents combined with powerful quantitative analysis" (Duriau, Reger, & Pfarrer, 2007: 7). The analysis was driven by the goal of providing greater insights and clarity surrounding academic promotion criteria. To do this, I first

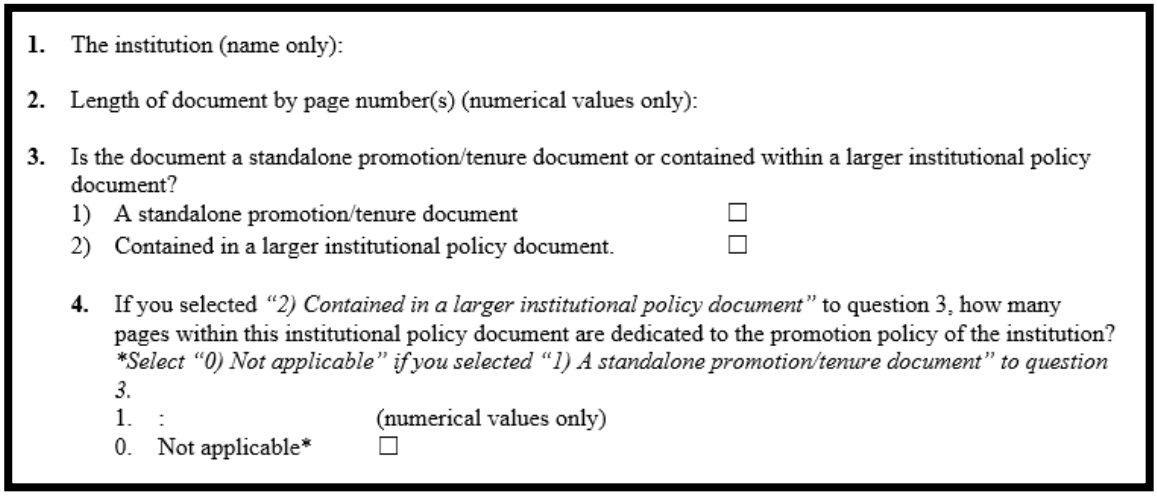
read several of the promotion documents cover-to-cover to identify the specific promotion criteria used by this sub-set of institutions. From this, I created an initial codebook with these promotion criteria and tested it against a small sample of documents. In doing so, I had two objectives, 1. Assess how applicable these initial promotion criteria were across different ranks, institutions, and regions and 2. Identify promotion criteria not captured from the initial sample. Based on the outcome of this test, the initial codebook was modified to incorporate all relevant changes identified. This process was repeated several times on new sub-sets of the promotion documents until I was confident that the codebook was able to measure the promotion criteria of different ranks, institutions and regions successfully without excluding relevant information.

Initially, the data-capturing questions in the codebook were grouped by their corresponding classification (i.e., research, teaching, or service). However, during the above testing stage, I found that how academic activities were classified was institution-specific. For example, the promotion criteria to supervise doctoral students appears as a research criterion for some institutions and a teaching criterion for others. By making this assumption, the codebook would only provide limited insights into the signalled written career script. It would also have limited the implications of the findings by only reporting on the general expectation of performance by academics during the promotion process. A common trend and limitation in the academic career management literature. As a result, the codebook was modified so that questions had no grouping and an additional question was added to record how the institution classified the criteria (e.g., was this classified as research, teaching or service?). The testing of the codebook also showed that institutions had different expectations about the level of involvement of an individual from a service perspective. For example, several rank documents across the 6 regions were specific about individuals participating in service activities at particular levels within the

institutions (e.g., Academic unit or University-wide). As a result, this question was also added to the codebook.

The coding instructions of the codebook can be grouped under 4 headings. The first is a set of context coding instructions that capture specific information about the institution and promotion document. Details of the context coding instructions can be seen in Figure 1.

Figure 1. Snapshot of Context Coding Instructions



1. The institution (name only):

2. Length of document by page number(s) (numerical values only):

3. Is the document a standalone promotion/tenure document or contained within a larger institutional policy document?

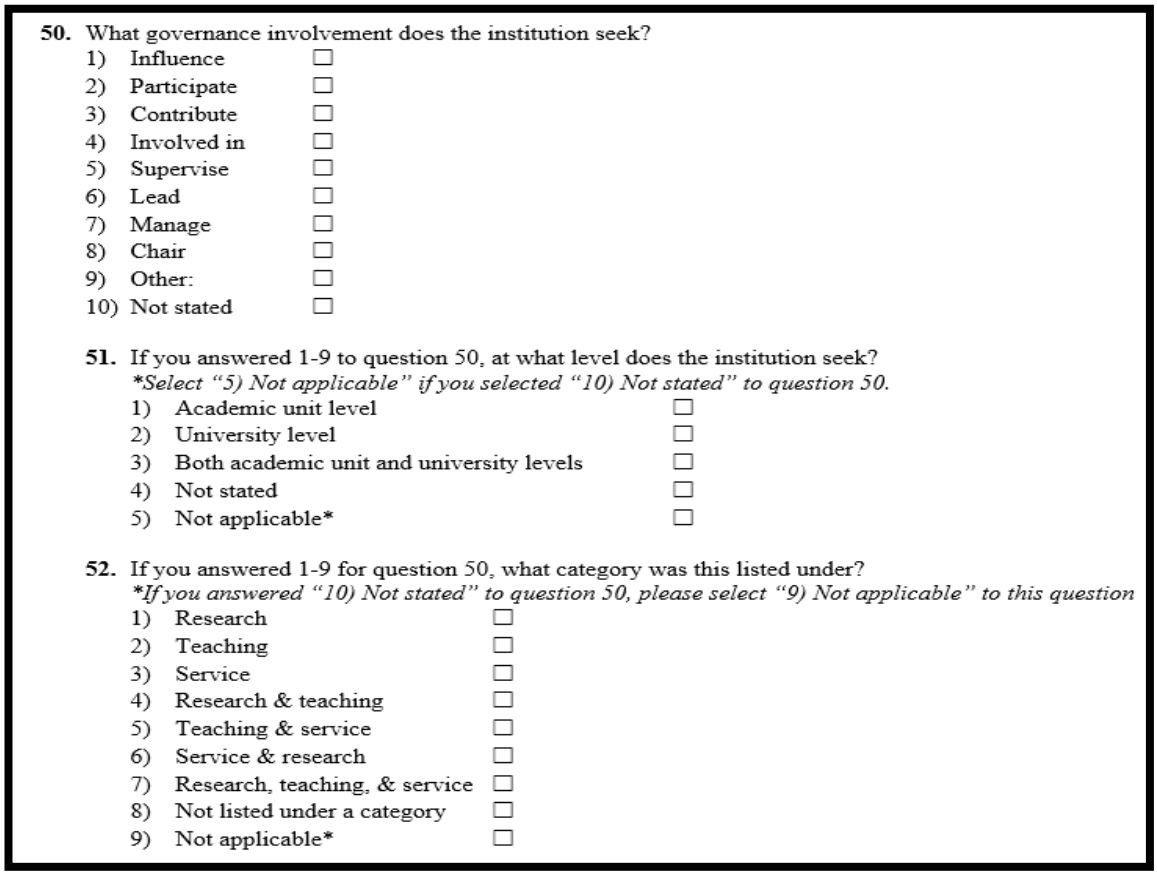
1) A standalone promotion/tenure document ☐
2) Contained in a larger institutional policy document. ☐

4. If you selected *"2) Contained in a larger institutional policy document"* to question 3, how many pages within this institutional policy document are dedicated to the promotion policy of the institution? **Select "0) Not applicable" if you selected "1) A standalone promotion/tenure document" to question 3.*

1. : (numerical values only)
0. Not applicable* ☐

The three other coding instructions focused on capturing, 1. the promotion criteria (the activity and its level of clarity/ambiguity), 2. at what level within the university the institution sought the activity to be, and 3. the classification the institution assigned it to. Details of the coding instructions can be seen in Figure 2.

Figure 2. Snapshot of Promotion Criteria Coding Instructions



50. What governance involvement does the institution seek?

1) Influence ☐
2) Participate ☐
3) Contribute ☐
4) Involved in ☐
5) Supervise ☐
6) Lead ☐
7) Manage ☐
8) Chair ☐
9) Other: ☐
10) Not stated ☐

51. If you answered 1-9 to question 50, at what level does the institution seek?
**Select "5) Not applicable" if you selected "10) Not stated" to question 50.*

1) Academic unit level ☐
2) University level ☐
3) Both academic unit and university levels ☐
4) Not stated ☐
5) Not applicable* ☐

52. If you answered 1-9 for question 50, what category was this listed under?
**If you answered "10) Not stated" to question 50, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐
3) Service ☐
4) Research & teaching ☐
5) Teaching & service ☐
6) Service & research ☐
7) Research, teaching, & service ☐
8) Not listed under a category ☐
9) Not applicable* ☐

The final codebook consisted of 75 coding instructions (8 context coding and 68 promotion criteria coding instructions). The promotion criteria coding instructions have two objectives, 1. To identify if a promotion criterion was present within the promotion document and 2. To assess the level of ambiguity/clarity surrounding the criteria. The exploration of how ambiguous promotion signals are will be guided by Deb (2013). They define signal clarity as a "signal [that] is unambiguous and has a known cause, is measurable, is not open to dual interpretation, and has lesser noise due to a strong causal attribution" (2013: 100). From a promotion criteria perspective, it can be argued that where a promotion document contains explanations or definitions of how they measure academic performance as well as some form of quantitative measures, using Deb's (2013) definition, I argue that it is a clear promotion signal (i.e., little to no ambiguity). In contrast, where promotion documents rely solely on qualitative measures of academic performance with little to no explanations or definitions of the measures used, I will use

Deb's (2013) definition to classify the documents as ambiguous, unmeasurable, and open to dual interpretations (i.e., lacking signal clarity). When applying this approach to the coding of promotion documents, the coding instructions first ask how a particular promotion criterion is described (e.g., Research Productivity: strong, high, outstanding, amongst others) to identify the qualitative description of the criterion. Then where applicable, follow-up questions ask if the document states any additional information about how the criterion is measured (e.g., Research Quantity: 1-3 outputs, 4-7 outputs, amongst others) to identify any quantitative metrics that might accompany a criterion (see Figure 3).

Figure 3. Coding for Promotion Criteria and Level of Clarity/Ambiguity

10. What general level of measurement is used to describe research productivity?

1) Strong ☐
2) High ☐
3) Very high ☐
4) Excellent ☐
5) Satisfactory ☐
6) Substantial ☐
7) Outstanding ☐
8) Exceptional ☐
9) Other: ☐
10) Not stated ☐

11. Is the research output quantifiable?

1) Yes ☐
2) Not stated ☐

12. If yes to question 11, what quantity of research output does the institution seek?

**If you answered "2) Not stated" to question 11, please select "5) Not applicable" to this question*

1) 1-3 outputs ☐
2) 4-7 outputs ☐
3) 7-10 outputs ☐
4) 10+ outputs ☐
5) Not applicable* ☐

Once each promotion document was read in full and had a codebook completed for it, the information was transferred to a codeform. This codeform (spreadsheet) consisted of 75 columns (one for each codebook question) and 379 rows (one for each rank assessed). Transferring the information from the codebook to the codeform consisted of recording the relevant answer to each question (e.g., where the answer was 1. Research, the codeform noted 1). Using the codeform, I then calculated the frequency counts for each coded question.

As each promotion document was coded, the individual rank's name was initially captured as it appeared on the document. This resulted in multiple versions of each rank. As per Table 4, there were 13 initially coded individual ranks. The promotion document that contained a single set of promotion criteria for both a Reader and Chair rank was excluded from the analysis as it appeared only once and measured two different ranks, making it difficult to draw comparisons. Of the remaining 12 individual ranks, seven were variations of the title Professor. Each one presented the requirements to achieve the position of Professor, so I consolidated them into one rank. Additionally, the rank of Reader is a UK-specific rank that falls between Associate Professor and Professor, making it a Senior Associate Professor rank. As a result, I consolidated this rank as well as the “Reader and Associate Professor” single promotion document collected with the Associate Professor rank. Finally, across the sample, I identified 20 scenarios where an institution provided promotional criteria for research and teaching faculty but did not specify the criteria by rank. These cases were classed as non-rank-specific criteria. As a result of this process, the study contains three consolidated academic ranks (i.e., Senior Lecturer, Associate Professor, and Professor) and a set of non-rank-specific criteria. The initially coded and consolidated ranks can be seen in Table 4.

Table 4. Consolidated Academic Ranks

Initially Coded Ranks	n.	%	Consolidated Ranks	n.	%
Senior Lecturer	52	13.8	Senior Lecturer	52	13.7
Professor	145	38.1	Associate Professor	147	38.8
Associate Professor	114	30.2	Professor	160	42.2
Reader	32	8.5	**Rank Total**	**359**	**94.7**
Personal Chair	7	1.6	*Non-rank-specific criteria*	*20*	*5.3*
Professor In	2	0.5	**Sample Total**	**379**	**100.0**
Full Professor	2	0.5			
Personal Professor	2	0.5			
Professor B	1	0.3			
Professor of	1	0.3			
Reader and Chair	1	0.3			
Reader and Associate Professor	1	0.3			
Rank Total	**360**	**94.7**			
Non-rank-specific criteria	*20*	*5.3*			
Sample Total	**380**	**100.0**			

Findings

Identified Promotion Criteria Categorisations

Using content analysis, I identified eight categories of promotion criteria among the promotion documents. This was achieved by focusing on the 41 promotion criteria-specific coding institutions within the codebook. The eight categories were Publication Productivity, Teaching Involvement and Measures, Teacher Training, Service to the Institution, Service to the Discipline, Service to Society, Student Support, and Achievements and Recognition. To best capture all coding instructions, I used Wiley and

colleagues' (2016) previously mentioned promotion criteria classifications (i.e., teaching effectiveness, research productivity, and service to the institution, profession, business, and community) as a guide in identifying these categories. Table 5 presents extracts from the promotion documents analysed along with the coding of the extracts and the categorisation of these codes.

When categorising the codes, I focused on the nature of the activity rather than the classification made by the institution. This choice was made due to an inconsistent application of academia's research, teaching, and service classifications among the promotion documents. Across the sample, I found that institutions, regardless of region, used inconsistent approaches to define what constitutes research, teaching, or service when classifying academic performance. For example, postgraduate supervision and pedagogical publications are research criteria in some documents while they are teaching criteria in others. Additionally, awards and funding were among several criteria that appeared under one or more classifications across the promotion documents. This resulted in identifying Achievements and Recognition (i.e., awards and funding) as a standalone category rather than being attached to one of the other academic performance categories.

While we can assume that research and teaching active faculty are aware that they must produce research and participate in teaching to advance their career, the level of involvement in service activities may not be as widely known. From the content analysis, I identified that in addition to Publication Productivity and Teaching Involvement and Measures, faculty need to show extensive involvement in service activities. These activities move beyond just the institution and include the academic discipline and wider society. Finally, the analysis also found that faculty must show involvement in Teacher Training (i.e., some form of formal teacher training or qualification) and Student Support (i.e., assisting students during their academic journey).

Table 5. Coding and Categorisation of Promotion Documents

Promotion document extracts	Codes	Categories
"An excellent record for publications will involve a consistent and successful engagement with research and scholarship"	Research output classification	**Publication Productivity**
"Significant contribution to a minimum of 4 outputs in the most recent 6 year period"	Research quantity	
"Achieve rating 4 (using REF criteria)*	Research measure	
" An established external profile for excellence in impact, outreach, teaching or pedagogical research"	Pedagogical publication output	
"Outstanding involvement in research collaborations that have delivered strong outcomes and impact"	Research collaboration	
"An excellent record would require the candidate to evidence that the quality of their teaching is excellent"	Teaching quality	**Teaching Involvement & Measures**
"Evidence of reflective practice informed by student feedback on teaching, which may include actions taken in response to the Student Evaluation of Learning Experience (SELE) survey"	Teaching evaluations	
"Candidates will document their teaching commitment over the preceding three years	Teaching level (UG, PG, EE)	

Promotion document extracts	Codes	Categories
(excluding periods of leave) at undergraduate and postgraduate level"		
"Leadership in educational innovation"	Teaching activities	
"Recognised for excellence in curriculum design and delivery"	Course design and delivery	
"Experience as External Examiner for PhDs or research masters theses"	External research degree examining	
"Serving on assessment boards, review panels and other similar activities outside the Department"	External examining (boards/panels)	
"They will have extensive and high level teaching experience, normally supported by a relevant PhD, PGCHE"	Teacher training	**Teacher Training**
"At least Fellowship of Advance HE (formerly HEA)"	Teaching status (HEA)	
"Chair of university level committee, and working groups"	Committee chair	
"Leading and managing a successful and structured research centre, group or team that has achieved excellent results"	Research centre/group	**Service to the Institution**
"Leadership of or participation in specific initiatives at Departmental level"	leading initiatives	

Promotion document extracts	Codes	Categories
"Engagement with talent development of peers or junior colleagues through the University Mentoring Scheme"	Assisting junior colleagues	
"Service or leadership with national or international organisations dedicated to the enhancement of teaching and learning, the student experience, or higher education generally"	Enhancing the student experience	
"Leading review and/or quality assurance activities"	Academic quality assurance	
"Contribution to the effective functioning of the university e.g. as an active member of school/faculty/ institute/university committees and boards."	Committee activities	
"Service to Governing Authority, Academic Council and/or any of the governance or management committees of the university"	Governance activities	
"Successful leadership in specific strategic and operational areas and broader leadership potential"	Operational activities	
"Holding an administrative role within the Department" / "Require the candidate to have successfully held a major position of	Managerial activities	

Promotion document extracts	Codes	Categories
responsibility close to or at the level Head of Department"		
"the overall body of evidence must demonstrate outstanding classroom instruction, as well as leadership, innovation, and achievement beyond the campus"	Leadership status	
"Participation in open days and other recruitment and outreach activities"	Recruitment and outreach	
"Substantial involvement in promoting the university and building support among external partners for university developments"	University promoting	
"Membership and active participation in relevant professional, learned or subject associations and societies at national and international levels"	Academic associations	**Service to the Discipline**
"Keynote addresses and invited reviews"	Keynote lecture	
"Refereeing for academic journals and other learned publications"	Journal peer-review	
"Editing and membership of editorial boards of published journals"	Journal editorial board	
"Journal editorships or membership of editorial boards"	Journal editorial role	

Promotion document extracts	Codes	Categories
"has had significant cultural impact"	societal impact	**Service to Society**
"Informing the public and contributing to policy debate at a high level or scale" / "Providing expert advice to government, industry and other organisations"	Policy regulation/legislation	
"Leadership of professional, cultural or community organisations"	Community-based activities	
"policy making and management within the community (e.g. advising governments and public enquiries, and serving on commissions of enquiry)"	Societal advisor	
"The criterion requires that the candidate should have successfully engaged in the supervision of postgraduate researchers, specifically completed supervisions of Doctorates or Research Masters"	Postgraduate supervision	**Student Support**
"supervision would involve evidence of a high level of on-going and successful research supervision, normally this would involve at least four PhDs, or professional or practitioner doctorates or eight research Masters, supervised to completion, as sole or major supervisor"	No. of postgraduate supervision	

Promotion document extracts	Codes	Categories
"Departmental student administration and support"	Student support	
"National awards and recognition for one's teaching achievements from peers beyond the college and university"	Awards	**Achievements & Recognition**
"Obtaining external peer-reviewed grants for teaching/instruction and student development activities"	Funding	

Promotion Criteria Codes

Table 6 shows the breakdown of the individual codes across the promotion documents. From this table, I identified that institutions signal a somewhat narrow expectation of Publication Productivity, with 85% of the sample signalling a research output criterion. This is followed by only 40% and 44% of the documents signalling a pedagogical publication output and research collaboration criteria. Comparing Publication Productivity with Teaching Involvement and Measures, I found that institutions signal a greater number of teaching-related criteria and are more consistent across the sample. For example, 82% and 70% of the sample signal the requirement of teaching quality and course design and delivery. Additionally, over half of the sample (53% and 57%, respectively) also signal teaching evaluations and teaching activities (i.e., leading educational innovation).

For service, I found that the breadth of these categories is much greater than the other categories. For example, I identified one teaching activity-related categorisation and one research activity-related categorisation with seven and five coded measures, respectively. For service, I identified three service categories (i.e., institution, discipline, and society) and 22 individual coding measures signalled by institutions. While the analysis does not signal that a faculty member must be involved in all 22 coded activities, it does signal that of the three general academic performance classifications (i.e., research, teaching, and service), service is the most diverse and complex. However, many of the promotion documents analysed state that faculty seeking advancement to Associate Professor should not overburden themselves with service activities. This is due to high performance in service not being a substitute for poor performance in research or teaching.

> Service to the university and the profession is an expectation of faculty throughout their careers, but in a normal professional trajectory untenured, tenure-track faculty will be more focused on teaching and research (Florida International University).

> Service to the University and its numerous units is expected of every faculty member; but such service shall not substitute for teaching and scholarship in matters of promotion and tenure (University of Missouri).

The service-related signals sent by the institutions via their promotion criteria and their promotion processes may result in uncertainty among individuals regarding the service expectations of the institution.

Using Table 6, I found that there is relative consistency across ranks and signals or that the frequency of criteria naturally increases as individuals seek to progress in their career (e.g., the research and teaching criterion increasing from 79% to 91% and from 75% to 86%, respectively). However, the frequency of some criteria (e.g., pedagogical publication, university promotion, amongst others) declines as we move up the ranks. For example, the frequency of pedagogical publication and research collaboration declined from 50% for Senior Lecturers to 39% for Professors for pedagogical publication and from 58% for Senior Lecturers to 41% for Professors for research collaboration. It could be concluded that for some institutions, those two activities become less important as you become more established and progress in your career. I observe a similar trend with assisting junior colleagues as 56% of the institutions in the sample require Senior Lecturers to show evidence of involvement which then drops to 39% for Associate Professors and 36% for Professors. The findings show that, for many institutions, the responsibility of assisting junior colleagues lies with those who are transitioning from the early career stage to the mid-career stage.

Finally, while I can see that institutions signal involvement in service to the institution, discipline, and society in unique ways, signals related to recruitment and outreach, university promoting, journal peer-review, and societal impact become less prominent the more you advance in your career. This leads to the conclusion that as faculty advance in academic rank, certain activities become more junior faculty-focused at some institutions.

Table 6. Frequency Counts of Promotion Document Codes

Categories	Codes	Promotion Criteria *n: 379*	*% of the sample*
Publication Productivity	Research output classification	322	*85%*
	Research quantity	18	*5%*
	Research rating (REF)	29	*8%*
	Pedagogical publication output	150	*40%*
	Research collaboration	167	*44%*
Teaching Involvement and Measures	Teaching quality	311	*82%*
	Teaching evaluations	199	*53%*
	Teaching level (UG, PG, EE)	119	*31%*
	Teaching activities	216	*57%*
	Course design and delivery	265	*70%*
	External research degree examining	77	*20%*
	External examining (boards/panels)	79	*21%*
Teacher Training	Teacher training	38	*10%*
	Teaching status (HEA)	88	*23%*
Service to the Institution	Committee chair	100	*26%*
	Research centre/group	103	*27%*
	leading initiatives	95	*25%*
	Assisting junior colleagues	185	*49%*
	Enhancing the student experience	151	*40%*
	Academic quality assurance	56	*15%*
	Committee activities	206	*54%*

Categories	Codes	Promotion Criteria *n: 379*	*% of the sample*
	Governance activities	114	*30%*
	Operational activities	42	*11%*
	Managerial activities	219	*58%*
	Leadership status	167	*44%*
	Recruitment and outreach	131	*35%*
	University promoting	58	*15%*
Service to the Discipline	Academic associations	205	*54%*
	Keynote lecture	91	*24%*
	Journal peer-review	98	*26%*
	Journal editorial board	129	*34%*
	Journal editorial role	158	*42%*
Service to Society	Societal impact	130	*34%*
	Policy regulation/legislation	163	*43%*
	Community-based activities	211	*56%*
	Societal advisor	96	*25%*
Student Support	Postgraduate supervision	289	*76%*
	No. of postgraduate supervision	15	*4%*
	Student support	172	*45%*
Achievements & Recognition	Awards	220	*58%*
	Funding	284	*75%*

Ambiguous Written Career Script Signals

From the analysis of Tables 5 and 6, I conclude that the written career script signals are consistently ambiguous across the sample. This is determined as most of the institutions take a qualitative approach to measure faculty performance over a quantitative approach. For example, Table 6 shows that 85% and 82% of institutions use some form of descriptive measures (e.g., excellence, contribution, leading, amongst others) when measuring Publication Productivity and Teaching Involvement and Measures. In contrast, only 5% of the institutions signal a quantitative measure, such as research quantity.

When examining the ambiguity of the written career script signals by academic rank, Table 7 shows consistency across each rank. For example, postgraduate supervision is a promotion criterion in 88%, 76%, and 74% of the Senior Lecturer, Associate Professor and Professor promotion documents. In contrast, only 4%, 3%, and 4% of the documents at each rank signal specific numbers of graduates the institution requires to have completed their studies. Additionally, I found that teaching quality is assessed using subjective measures (e.g., teaching quality and activities) and that in approximately 50% of the sample across all three ranks, teaching evaluations are used in some capacity to aid in this measure. However, institutions at each rank do not express any benchmark or goals that an individual could aim to achieve.

Examining the three service categories in greater detail, I found that Service to Discipline and Society takes a somewhat ambiguous approach with activities focused on academic journals, academic associations, and involvement with communities and policymakers. Institutions do not specify what level of involvement with communities, policymakers, and academic associations they seek. Additionally, institutions do not signal what types of journals they would like faculty to be associated with or if they favour some levels of involvement over others. In other words, they do not signal how they weigh involvement in journal peer-review, editorial boards, and editorships.

Table 7. Frequency Counts by Rank

		Senior Lecturer		*Associate Professor*		*Professor*	
Categories	***Codes***	***Promotion Criteria n: 52***	***% of the sample***	***Promotion Criteria n: 147***	***% of the sample***	***Promotion Criteria n: 160***	***% of the sample***
Publication Productivity	Research output classification	41	*79%*	125	*85%*	145	*91%*
	Research quantity	3	*6%*	8	*5%*	7	*4%*
	Research rating (REF)	7	*13%*	10	*7%*	11	*7%*
	Pedagogical publication output	26	*50%*	51	*35%*	63	*39%*
	Research collaboration	30	*58%*	62	*42%*	66	*41%*
Teaching Involvement and Measures	Teaching quality	39	*75%*	119	*81%*	138	*86%*
	Teaching evaluations	26	*50%*	81	*55%*	78	*49%*
	Teaching level (UG, PG, EE)	18	*35%*	44	*30%*	47	*29%*

		Senior Lecturer		*Associate Professor*		*Professor*	
Categories	***Codes***	***Promotion Criteria n: 52***	***% of the sample***	***Promotion Criteria n: 147***	***% of the sample***	***Promotion Criteria n: 160***	***% of the sample***
	Teaching activities	37	*71%*	77	*52%*	92	*58%*
	Course design and delivery	37	*71%*	100	*68%*	110	*69%*
	External research degree examining	12	*23%*	29	*20%*	33	*21%*
	External examining (boards/panels)	16	*31%*	32	*22%*	30	*19%*
Teacher Training	Teacher training	9	*17%*	14	*10%*	12	*8%*
	Teaching status (HEA)	19	*37%*	31	*21%*	35	*22%*
Service to the Institution	Committee chair	15	*29%*	36	*24%*	46	*29%*
	Research centre/group	15	*29%*	35	*24%*	50	*31%*
	leading initiatives	21	*40%*	25	*17%*	44	*28%*

		Senior Lecturer		*Associate Professor*		*Professor*	
Categories	***Codes***	***Promotion Criteria n: 52***	***% of the sample***	***Promotion Criteria n: 147***	***% of the sample***	***Promotion Criteria n: 160***	***% of the sample***
	Assisting junior colleagues	34	*65%*	67	*46%*	77	*48%*
	Enhancing the student experience	29	*56%*	58	*39%*	58	*36%*
	Academic quality assurance	12	*23%*	21	*14%*	22	*14%*
	Committee activities	31	*60%*	81	*55%*	80	*50%*
	Governance activities	13	*25%*	44	*30%*	48	*30%*
	Operational activities	5	*10%*	15	*10%*	17	*11%*
	Managerial activities	32	*62%*	73	*50%*	101	*63%*
	Leadership status	29	*56%*	53	*36%*	79	*49%*
	Recruitment and outreach	27	*52%*	51	*35%*	51	*32%*

		Senior Lecturer		*Associate Professor*		*Professor*	
Categories	***Codes***	***Promotion Criteria n: 52***	***% of the sample***	***Promotion Criteria n: 147***	***% of the sample***	***Promotion Criteria n: 160***	***% of the sample***
	University promoting	13	*25%*	21	*14%*	22	*14%*
Service to the Discipline	Academic associations	23	*44%*	80	*54%*	91	*57%*
	Keynote lecture	11	*21%*	30	*20%*	44	*28%*
	Journal peer-review	18	*35%*	35	*24%*	37	*23%*
	Journal editorial board	18	*35%*	51	*35%*	51	*32%*
	Journal editorial role	20	*38%*	60	*41%*	68	*43%*
Service to Society	Societal impact	24	*46%*	43	*29%*	58	*36%*
	Policy regulation/legislation	27	*52%*	58	*39%*	69	*43%*
	Community-based activities	26	*50%*	77	*52%*	90	*56%*

		Senior Lecturer		*Associate Professor*		*Professor*	
Categories	***Codes***	***Promotion Criteria n: 52***	***% of the sample***	***Promotion Criteria n: 147***	***% of the sample***	***Promotion Criteria n: 160***	***% of the sample***
	Societal advisor	13	*25%*	31	*21%*	46	*29%*
Student Support	Postgraduate supervision	46	*88%*	111	*76%*	119	*74%*
	No. of postgraduate supervision	2	*4%*	5	*3%*	7	*4%*
	Student support	21	*40%*	68	*46%*	70	*44%*
Achievements & Recognition	Awards	34	*65%*	79	*54%*	94	*59%*
	Funding	41	*79%*	106	*72%*	119	*74%*

Discussion and Implications

Discussion

This chapter set out to explore the academic written career scripts signalled by higher education institutions via their promotion documents to understand the performance expectations placed upon faculty seeking career advancement. It also aimed to understand the level of ambiguity of the written career script signals. To achieve this, content analysis was conducted, and frequency counts were tabulated on a set of promotion documents from several higher education institutions in English-speaking countries.

From the content analysis, I identified eight categories of academic performance institutions seek from faculty during the promotion process. These 8 performance categories are then measured using 41 unique criteria that were present in most promotion documents. The identification of these 8 performance categories was completed based on the objective of the criteria and not based on how the institution classified it in their promotion documents. This was because the findings show that what constitutes research, teaching, and service is not consistent across institutions. In other words, while some academics might work from a generalization of what activities constitute research, teaching, and service, this classification is unique to each institution. Initially, the inconsistent classification of performance mostly affects additional activities (e.g., support, funding, training, amongst others) with mainstream activities such as research production and student teaching being consistent. However, additional challenges were identified as institutions signal more criteria when measuring teaching and that service to the institution, discipline, and society is the most complex among the performance classifications. The challenge that this presents lies in the nuances of how institutions measure overall performance for individuals. For institutions that apply a weighting to

their performance measurement such as 40% research, 40% teaching, and 20% service, these nuances may cause an individual to present an unbalanced promotion application.

As I explored promotion criteria from a rank perspective, I found that as individuals advance in rank, there is greater emphasis placed on their performance in the core academic activities (i.e., research output and teaching leadership) with a diminishing expectation in other activities (e.g., assisting junior faculty, university promoting, amongst others). This indicates that junior faculty are expected to be involved in a broader range of activities which they can then narrow down as they advance in their career. The findings would indicate that this applies to the lower ranks within academia and less so to more senior ranks. Interestingly, written career scripts signal that senior academics need to provide less social impact performance than junior faculty. It may be that this is not signalled via promotion documents as it is a taken-for-granted expectation for more senior faculty, or it may be that institutions would rather a senior faculty member be more involved in administration roles in the institution which is less expected at the more junior ranks.

The analysis of signal clarity shows that the ambiguity among the written career scripts is a somewhat consistent approach taken by most of the sample. This ambiguity originates from multiple performance criteria with no benchmarks, definitions or explanations of the measure and conflicting statements of how overall performance will be measured. These contrasting signals present an additional layer of ambiguity surrounding academic promotions that have not been previously discussed in the literature. For example, the promotion document statements that service should not dominate a promotion application while also signalling the highest number of promotion criteria is likely to create confusion for individuals. Especially when the literature provides limited insights into how service should be approached by individuals or how it is perceived by institutions. Within this additional analysis, reviewing the signalling of an

institution's expected performance would lead some to conclude that service is more heavily sought after than it may be.

The literature contains a body of research (i.e., academic career management literature) that seeks to assist faculty with improving academic performance and their career progression. The findings of this study, however, show how narrow their claims are. For example, Lindgreen and Di Benedetto (2022: 1) claim that “outrageous” research will drive career progression and Baruch and Hall (2004) claim that an international research reputation is most important for academic promotion. While these claims might seem appealing as they may be published in highly ranked journals and are potentially made by accomplished academics, they present two challenges, Firstly, unless these claims originate from a broad study that examines academic promotion criteria, many are anecdotal and are based on personal experience. The results from this study show that performance expectations are much broader than one criterion and the expectation of each institution, as shown by the frequency counts, is unique. This indicates that there is a lack of uniform performance criteria or signals that only one or two criteria are more heavily weighted than the others. The second challenge with these claims is their ambiguous nature. For many of these anecdotal claims, no attentional explanation is provided on what an international research reputation means or how outrageous research is achieved. This makes these claims as ambiguous as the promotion criteria signalled. It can be concluded that these statements are an overly simplistic view of academic promotion and do not align with the 8 categories and 41 measures of performance identified in this study. This contrast may be explained by Horta and Santos's (2023) finding that individuals at certain stages of their careers, begin to prioritize activities they perceive to have a greater impact on career progression.

However, even the literature that has aimed to be more comprehensive in its analysis of promotion criteria has not provided detailed insights into an institution's

expectations. For example, the identified inconsistent approach by institutions regarding what constitutes research, teaching, and service in this study calls into question assumptions made by authors of previous academic performance research. Previously discussed studies, such as Lindgreen and Di Benedetto (2022), Hollywood and colleagues (2020), and Wiley and colleagues (2016) advise academics on how best to perform across several academic performance classifications. However, if institutions measure performance uniquely (i.e., differ in what they class as research, teaching, and service), this advice will have limited applicability. For example, greater time spent on one performance category over another will result in an unbalanced promotion application. Such an individual may over-fulfil one weighted classification while underperforming in the other. Additionally, it is possible that institutions that place pedagogical publications under teaching performance could result in those who publish in pedagogical journals having their performance deemed as teaching and not research performance, hindering their possibility of academic career progression at that institution.

It has been claimed that what drives academic promotion is unclear and there has been a call for clarity (Thanassoulis et al., 2018). The review of the literature identified a common view that research is the most influential (Hollywood, McCarthy, Spencely, & Winstone, 2020; Lissoni et al, 2011; Baruch & Hall, 2004). However, the analysis of written career scripts does not support this claim as no additional signals, criteria, or benchmarks for Publication Productivity were identified in comparison to the other categories. While some academics may have observed a difference in the awarding of promotions from previous employments, institutions do not send signals indicating that research is the dominant factor for promotion decisions.

The dominant use of qualitative measures confirms the earlier comments that the application of many of the quantitative-based academic career management studies (Ayoubi et al., 2019; Benavente et al., 2012; Clark et al., 2016) has limited applicability

in qualitatively dominant promotion processes. While these can, of course, assist faculty in advancing their career, increasing the quantum of the output may not meet the qualitative requirements of promotion documents. For example, increasing research output in lower-tier journals may not equate to “excellence” in research if the institution holds a definition of excellence based on a higher measure of journals the individual has been publishing in. Additionally, winning a funding application may not improve the chances of a successful promotion application if the funding awarding body and funding value do not align with the institution’s expectations of “external peer-reviewed grants” from reputable outlets.

Such challenges also align with Helgesson and Sjogren's claim that where the institution requires excellence in a category, this "could solely be determined at insiders discretion” (2019: 572). In this scenario, institutions are most likely to benchmark candidates against subjective interpretations of the promotion criteria. As previously argued, this is likely due to the previously mentioned argument that institutions provide universal policies due to an academic's independence and the diversity of disciplines regarding how they perform but must then translate this performance for stakeholders to interpret. The review of the written career scripts did not identify any performance signals that were discipline-specific and the only specific performance requirements were institutions that required publication in pre-determined quality outlets.

While I found that institutions in the sample favour the use of qualitative metrics when measuring academic performance, an exception is the category of service to the institution. In comparison to the other categories, service to the institution is more narrowly focused on the contributions the individual makes to their school, department, or institution. It could be concluded that institutions put a greater focus on service to the institution than the other categories for two reasons. Firstly, they are less likely to be influenced by market expectations. For example, an academic's involvement with

academic disciplines, society, publication productivity, and teaching involvement can be sources of competitive advantage for the institution, and the threshold for that competitive advantage is determined by market expectations. However, the individual's involvement in service to the institution is not itself a competitive advantage. Rather, when done successfully, the coordination and oversight of academic activities at the department and university levels can lead to institutional competitive advantages. This does not imply that service to the institution is any less important than the other categories, rather, it is less impacted by external factors allowing institutions to provide greater clarity about their expectations. Secondly, unlike the other categories and criteria, service to the institution is not discipline-specific. Regardless of the discipline, the process of service-related activities (e.g., running a department, a programme, or chairing committees, amongst others) requires a skill set that is somewhat universal to the institution resulting in a need for less all-encompassing policies than the other categories.

The career script literature holds the view that scripts should be used to guide career decision-making as they provide insights into careers/positions. It has also been shown that these scripts are the accumulation of an institution's needs and individuals' interpretation of these needs. However, the literature does not provide any insights into what the needs are of higher education institutions for academic career advancement. Some academic career management literature tries to guide junior faculty career decision-making. However, this advice contains three challenges. Firstly, some claims are anecdotal or based on personal experience that cannot be generalised. Secondly, many of the studies are dominated by a quantitative view of measuring the academic career. Finally, much of the insights and advice is overly simplistic and does not address the complexity of criteria across several regions and institutional types.

This study contributes to both the career script and academic career literature by providing insights into an institution's needs via their signalled promotion criteria. The

findings have shown that an institution's needs span 8 performance categories that are measured using 41 criteria. The study has also shown that institutions send ambiguous promotion signals due to a need for universal policies and to achieve strategic objectives. However, the criteria identified in this study also aid individuals to move past the differences found with other academic career research to better interpret the needs of the institution in the hopes of securing career advancement.

Limitations

While institutions communicate formal promotion policies via their promotion documents, there are additional opportunities in which an individual may receive promotion criteria signals not captured in this study. It is common among institutions to host workshops where the institution's promotion policy is reviewed for each rank. During these workshops, it is likely that faculty receive additional information that may influence how they interpret the institution's needs. Additionally, many institutions require faculty to complete career promotion application forms. These application forms may provide additional explanations for the promotion criteria not contained in the promotion documents. As a result, a limitation of this study is my inability to capture this data to understand how it influences an individual's promotion criteria interpretation.

An additional limitation of this study is the insights that can be drawn from the data using content analysis. While the method has allowed me to identify the promotion criteria institutions seek for faculty career advancement and the level of clarity/ambiguity of each criterion, it does not provide insights into why institutions seek a particular set of criteria. It also doesn't indicate why some institutions provide additional clarity for criteria over others. For this reason, this study does not claim to have identified the reasoning of institutions when signalling promotion criteria. Rather, it conceptually argues the factors that shape and influence an institution's decision-making.

Implications

Following the analysis of the promotion documents for multiple ranks and from across multiple regions, I have been able to create two documents that I feel have implications for academics researching academic career promotion and those seeking career advancement. These are a Promotion Document Codebook and a Checklist.

Implications for Practice

As I have argued throughout this study, individual faculty are faced with ambiguous promotion signals that make it difficult for them to make career decisions that will meet the institution's expectations. This ambiguity is fuelled by both the institution's needs and how the individual is influenced to interpret these needs. As a result, I provide a promotion document checklist (provided in Appendix A) to aid faculty currently seeking advancement in rank with quick checks to better interpret the written career script signals sent by their institution. Using this checklist, individual faculty should be able to manoeuvre past some of the ambiguity they will find and should enable them to move away from any generalised understanding they may have of what drives academic career advancement. This should allow them to present a promotion application that better aligns with the expectations of the institution they are applying to.

Implications for Future Research

From the review of the literature, there exists uncertainty about what drives academic career advancement. What might be a common cause of this is how promotion criteria and the institutions' expectations are assessed. To help overcome some of these challenges, I provide a content analysis codebook (provided in Appendix B) that can aid academic performance researchers in exploring academic promotions with greater clarity into the promotion processes and criteria signalled by institutions. The value in using this codebook is its ability to move past region and institution-specific nuances of promotion criteria and conduct a more scaled analysis so that greater regional, rank and institutional

comparisons can be made. Using this codebook, future research could build on this study to explore the alignment of promotion criteria signalled against the institution's strategic objectives. Alternatively, future research could use this codebook to assess an institution's promotion criteria which could then be examined against the faculty's interpretation of the written career scripts.

Chapter 3. Promotion Outcomes as Career Role Model Scripts: Research and Service Expectation Signals.

Introduction

To meet increasing market competition (Herberholz & Wigger, 2021; Mizrahi, 2020), higher education institutions achieve global recognition through their faculty's research productivity, teaching effectiveness, and service to the institution, profession, business, and local community (Wiley et al., 2016). To influence this performance, institutions use career script signals (Barley, 1989) that faculty interpret. These career scripts are used by faculty as guides when making career-related decisions to better align with the future career they are pursuing (Laudel et al., 2019). Individuals seeking career advancement, do not only observe written career scripts but also observe the individuals who have recently had a change in academic rank. These observed individuals become a practical illustration of the way the institution implements its written career script. This makes them career script role models for individuals to use as a guide/benchmark when interpreting an institution's expectations.

The challenge with using career scripts to influence career decisions, however, is their continuously changing nature that is not fully acknowledged by the literature on career scripts. Much of this work assumes that scripts rarely change and when they do, this change happens over long periods. For example, “[t]hrough career decisions, in turn, scripts are maintained or may be altered over time” (Laudel et al., 2019: 938).

Viewing the above career script explanations from a signalling perspective, a career script should act as a relatively consistent signal that individuals can use for long-term career planning. However, this does not seem to be the case. Firstly, as identified in the previous chapter, career scripts are highly ambiguous, which opens them up to a multitude of different individual interpretations. Secondly, the institution's written career script signals compete with external noise as career scripts are inconsistent across

institutions and countries. This may make it difficult for individuals to generalise from their own experience across multiple workplaces of their peers. Third, institutions can introduce additional internal noise, when they start to deviate from their written career script to respond to short-term needs during career advancement processes.

Faculty are then faced with difficulties when seeking career advancement as they are presented with career scripts that are inconsistent with one another. As career scripts are co-determined by institutional needs and individual interpretation (Laudel et al., 2019), they are likely to be inconsistent as the institution's needs can rapidly change and individual interpretation is unique to each person. For example, institutional needs are continuously adapting to environmental challenges (Mu & Hatch, 2021), leaving faculty to interpret ambiguous career scripts. Institutions may do this to allow them to adapt their career-advancing decision-making to the institution's strategies and market demands (Mu & Hatch, 2021).

Signalling theory explains how the effectiveness of signals (i.e., career scripts) is heavily influenced by the signaller and the quality of the signal (Connelly et al., 2011). Where multiple signals are sent (i.e., various academic career scripts) that contradict each other, signal noise is created (Connelly et al., 2011; Spence, 1973). In this situation, individuals may be left interpreting inconsistent career scripts and making career-related decisions difficult to align with the institution’s needs. This signal noise may be created when institutions try to address their institutional strategies by deviating from their established written career scripts and providing individuals with career script role models whose performance does not align with the written

career script signals. It can be argued that the career scripts signalled when career-advancing decisions are made, are inconsistent with each other and with past scripts. As a result, faculty seeking advancement are potentially interpreting conflicting signals. To explore this phenomenon, this study aims to address the research question,

How consistent are the rank-changing decisions signalled by institutions?

Chapter 2 contributed to Laudel and colleagues' (2019) refined definition of career scripts by addressing the institutional component of their definition with a particular focus on the institution's needs. This Chapter continues its contribution to the literature on career scripts (Horta & Li, 2024; Van Helden et al., 2023; Whitechurch et al., 2021; Barley, 1989) and the work of Laudel and colleagues (2019) by addressing the signalled outcome when an institution's needs meet individual interpretation. The evolving nature of the institution's needs and the subjective nature of interpretation will result in unique career scripts that are inconsistent with one another. This questions the assumption that they rarely change (Laudel et al., 2019) and how they should be used to influence career decision-making.

Acknowledging the emergence of several career scripts when individuals in the same organisation achieve career advancement, provides researchers with greater insights into the interplay between organisational choices and the career decisions of individuals. This study will have direct implications for individual faculty seeking career advancement. Showing individuals how post-advancing career scripts come about, will show that these scripts are more useful as an additional tool in understanding institutional needs but not as a complete career roadmap. The study also has implications for the literature on academic performance and its impact on career advancement (Mu & Hatch, 2021; Aguinis et al., 2020), specifically the work on academic career progression (Mantai & Marrone, 2023; Stratford et al., 2023; Zacher et al., 2019; Ryazanova and McNamara, 2019). Identifying inconsistent career scripts opens avenues for future research on understanding how individuals seeking career progression use colleague observation and benchmarking. It also provides avenues for future research into how we can better use mentors and peers as guides for career advancement and not as individuals to be mirrored in the hopes of generating the same outcome.

Conceptual Background

Higher Education Institutions Performance Perspective and Expectations

As per the conceptual arguments in Chapter 2, higher education institutions operate in a highly competitive industry whereby the market drives the definition of excellence that is in a constant state of change. To achieve their strategic objectives, institutions must rely on the research, teaching, and service performance of individual faculty that they influence via written career scripts. Chapter 2's investigation of promotion criteria identified varying approaches to measuring academic performance in the literature that differed significantly by region. Measures ranged from teaching quality, "outrageous research", and international reputation to overall productivity, amongst others (Lindgreen & Di Benedetto, 2022: 1). While this literature provides initial insights into the institution's performance expectations, a faculty member's ability to use this information to make career-related decisions is limited. This is due to the additional questions that arise. For example, what teaching quality do institutions seek? What is defined as outrageous research and an international reputation? Additionally, while service is also mentioned by Lindgreen and Di Benedetto (2022), no study reviewed identified it as a determining factor or provided any additional insights into what type of service is valued by institutions.

To better understand the performance expectations signalled by institutions, Chapter 2 conducted a content analysis of promotion documents that identified 8 categories and 41 specific criteria that institutions require for career advancement (see Table 8). These findings show that institutions' performance expectations are more specific than the commonly discussed categories of research, teaching, and service. This is especially true regarding their expectation of service performance.

Table 8. Promotion Criteria Identified in Chapter 2

Publication Productivity	
Research output classification	Research quantity
Research measure	Pedagogical publication output
Research collaboration	
Teaching Involvement & Measures	
Teaching quality	Teaching evaluations
Teaching level (UG, PG, EE)	Teaching activities
Course design and delivery	External research degree examining
External examining (boards/panels)	
Teacher Training	
Teacher Training	Teaching status (HEA)
Service to the Institution	
Committee chair	Research centre/group
Leading initiatives	Assisting junior colleagues
Enhancing the student experience	Academic quality assurance
Committee activities	Governance activities
Operational activities	Managerial activities
Leadership status	Recruitment and outreach
University promoting	
Service to the Discipline	
Academic associations	Keynote lecture
Journal peer-review	Journal editorial board
Journal editorial role	
Service to Society	

Societal impact	Policy regulation/legislation
Community-based activities	Societal advisor
Student Support	
Postgraduate supervision	No. of postgraduate supervision
Student support	
Achievements & Recognition	
Awards	Funding

Reward Systems in Academia

In addition to written career scripts, institutions also influence the performance of employees through reward systems. The key to an effective reward system is the communication of the desired performance that is sought from employees and the reward the employee receives if they achieve this performance (Kerr & Slocum, 1987). Rewards can be classified as promotion (i.e., career advancement), material organisational rewards (e.g., annual bonuses), and access to organisational resources (e.g., time off) (Pearce, Branyiczki, & Bakacsi, 1994). As the workforce changes, the way employees perceive rewards changes. Adamovic (2023) found that employees' culture-inspired personal values influence how they perceive the sharing of rewards with a greater number of employees looking for organisations to base reward allocation on equality or extra role performance over task performance. As reward systems are independently managed and operated by organisations (i.e., each institution sets the desired performance, and the reward associated with meeting that performance) it is common to find differences across organisations even within the same industry. For example, within academia, Bello and colleagues (2023) found that across several regions, higher education institutions' reward systems value research output over teaching quality. However, Forland and Roxa (2023) show that institutions are establishing pathways via their reward systems to reward excellence in teaching.

While career advancement is commonly achieved via an institution's promotion process, individuals can also achieve the reward of career advancement by applying for an externally advertised role as an internal applicant. Similar to the promotion process, the career-advancing decision (reward) is decided upon by the institution based on the performance of the individual up to the point of application.

Stability of Academic Career Scripts

Career scripts present individuals with insights into career positions (Barley, 1989) as they are the outcome of the institution's needs and the individual's interpretation of these needs (Laudel et al., 2019). Individuals use career scripts to guide their career decision-making in the hope of achieving career positions (Horta & Li, 2024; Garbe & Duberley, 2021). In other words,

> when making career decisions in particular situations, actors position themselves in these scripts and decide about the next career move from the perspective of a sequence of moves leading to career progress. Through career decisions, in turn, scripts are maintained or may be altered over time (Laudel et al., 2019: 938).

However, what is unknown is, if career scripts are co-determined by the institution and individual, would they not continuously change due to the needs of the institution changing and individuals interpreting scripts in idiosyncratic ways? Where career scripts remain relatively consistent, it is plausible that they can be very beneficial to individuals making career-related decisions. However, if these career scripts are regularly evolving as individuals interpret them and the changing needs of the institution (as discussed in Chapter 2), the positive impact they can have on the career decisions of individuals is limited. Due to their influence over the career decision-making of individuals (Van Helden et al., 2023) and the inherent nature of evolving institutional needs not addressed in previous literature, it is important to explore the limited insights that career scripts can provide individuals into certain careers or positions.

In this chapter, I argue that the academic performance of individuals who have just been awarded career advancement by their employer (i.e., they have been awarded the next academic rank) signals career script role models for that academic rank. These career script role models are a result of individual faculty having interpreted the institution's written career scripts and presented their interpretation as academic performance to which the institution has deemed them as having met their needs.

Signal Noise in Academic Career Advancement

Signal noise - which happens when an organisation, intentionally or not, sends different signals concerning the same phenomenon - impacts the credibility of the signal or process (Gomulya & Mishina, 2017). In an academic context, while institutions may work to align their written career scripts with the institution's long-term strategy, their response to market demands or exogenous shocks may create *internal signal noise* when they make career-advancing decisions. This may occur when awarding career advancement to individuals whose performance does not align with the written career script and instead addresses current external opportunities or institutional strategies. However, observers of these decisions (i.e., faculty observing an institution's actions for guidance in their own career) may look to these recent career-advanced faculty as having enacted the written career script initially signalled by the institution and may become career script role models for that rank.

In addition to the internal signal noise individuals face, they may also experience signal noise from outside their current institution, which I will call *external signal noise*. In addition to academics building career capital external to their institution (as discussed in Chapter 2), we are also seeing an increased level of mobility among faculty, especially among ECAs (Cohen, Hanna, Higham, Hopkins, & Orchiston, 2020; Laudel & Bielick, 2019). Studies have identified several motivating factors influencing academics' participation in mobility such as increased research career capital (Ryazanova &

McNamara, 2019), increased home-country employment possibilities (Musselin, 2004), or an overall positive impact on career progression (Bojica, Olmos-Penuela, & Alegre, 2023). The possible consequence of increased mobility among academics is the effect of prior institution-specific knowledge[1] may have on a career. Wang and colleagues (2009) confirm that the importance of institution-specific knowledge is in its ability to drive institutional success; however, this is not automatic. Dokko and colleagues (2009) found that prior employment knowledge can hurt performance in a current role when individuals try to integrate into their new environment.

When I apply these findings to an academic context, it may be that an academic's interpretation of their institution's written career script is influenced by a general awareness of career script models signalled internally and externally. As a result, signal noise may not only originate internally from the institution changing its needs and deviating from past decisions but also externally from institutions where the individual has been previously employed. Previous academic employment may have left faculty with institution-specific knowledge that creates signal noise against the current employer's signalled academic career script. As individuals continue to build career capital external to the institution, they are presented with additional career script role models from their networks that may span several institutions and regions.

Based on the above, we know that career scripts are co-determined by the institution's needs and individual interpretation and that these scripts influence academic career decision-making. As a result, I argue that the career-advancing decisions of institutions are a signalled career script role model for that rank. We also know that the academic performance of faculty drives a higher education institution's success but that their expectations need to continuously change to align with market demands.

[1] Firm-specific knowledge (Grant, 1996) is the original term. However, public sector organisations do not operate as traditional "firms" and are best described as institutions. As a result, I am using the term "institution-specific knowledge".

Additionally, the individual's interpretation of these needs is subjective and influenced by external noise and past experiences. Taking this perspective, this study aims to explore how consistent are the rank-changing decisions signalled by institutions.

By addressing this research question, this study expands our understanding of career scripts by showing their inconsistent nature as institutional needs meet individual interpretations. This has direct implications for the use of career scripts by individuals and highlights a unique component of their creation that is overlooked by the career script literature but has direct implications for the findings of career script research. Additionally, addressing this research question will acknowledge the levels of signal noise individuals receive when seeking career advancement. From a practical perspective, this should aid faculty in better understanding how career scripts can guide career decisions but should not directly influence them.

Research Design

This study aims to explore how the career-advancing decisions made by institutions result in signal noise (internal and external) that might influence the perception of signalled academic career scripts. To achieve this, I collected and analysed academic performance data (specifically, research output and service activity involvement) by research- and teaching-active faculty who had a change in academic title over several years to a senior academic rank (e.g., they advanced from Assistant Professor to Associate Professor or from Associate Professor to Professor). I gathered faculty information from Business Schools from the list of institutions from Chapter 2. Data gathering consisted of the Web of Science (W.O.S), institutional bio pages, and faculty curriculum vitae (CV) to compile academic profiles for everyone. To measure signal noise among career-advancing decisions, I assessed the level of consistency or inconsistency of academic performance among individuals across ranks, regions, and institutions.

Data Collection

Using the list of 327 higher education institutions from Chapter 2, I first identified which of the Business Schools within these institutions had awarded career advancement to faculty between 2019 and 2022 (i.e., had a change in rank to Senior Lecturer, Associate Professor, Reader, or Professor). To do this, I used the digital archive, the Wayback Machine, which captures and stores webpages. I compared Business School webpages in late 2022 with an archived webpage between late 2019 and early 2022 to identify those who have had a title change. I was successful at collecting data from 101 high education institutions, details of which can be seen in Table 9. Where I was not able to collect data, it was due to one of the following reasons: 1). The institution did not have individuals with a change in rank to Senior Lecturer or higher or 2). The website used search filters or page numbers to segment the list of faculty, which means that the Wayback Machine was unable to archive those pages accurately.

Table 9. Institutional Sample

Country	Population	No. of institutions with successfully recorded faculty rank changes
Ireland	9	7
United Kingdom	100	36
Australia	37	10
New Zealand	8	3
Canada	31	8
United States	142	37
Total	**327**	**101**

Upon review of the data, it was observed that different institutions and regions use varying types of academic titles. For example, institutions within Ireland use titles such as “Personal Professor” and “Professor In”. In the UK, several institutions have Reader

as an additional academic title. As “Personal Professor” and “Professor In” represent sub-levels within the Professor rank, they were consolidated with all other Professor ranks. As the UK title Reader is a rank between Associate Professor and Professor (could also be described as Senior Associate Professor), I consolidated it with all other Associate Professor ranks. Table 10 presents the consolidation of ranks.

Table 10. Rank Consolidation

Recorded Academic Rank	**Consolidated Academic Rank**
Senior Lecturer	Senior Lecturer
Associate Professor	Associate Professor
Reader	
Professor In	Professor
Personal Professor	
Professor	

Once an initial list of faculty was created, I built academic profiles that recorded the research and service performance of these faculty up to the time of rank change. I followed an approach similar to the one used by Ryazanova and McNamara (2019). To do this, I used archival data found on a faculty’s CV and bio page of their institutional website and data extracted from the W.O.S. I focused on data related to the faculty's scientific performance and senior service roles held within the institution, discipline, and business community. Self-reported data from professional social media sites (LinkedIn and ResearchGate) was used to fill in any missing research or service role data. Table 11 lists the variables for which data was collected.

Table 11. Variables and their Explanations

Variables	Explanation
Total Research Output (Count Variable)	The total number of research an individual has produced (e.g., a count of all journal articles, book chapters, and books recorded on the W.O.S database)
Avg 5-year IF of journals where articles were published	Average 5-year impact factor of the journals an individual has published in as recorded by the W.O.S journal citation report.
Total Citations	Total citations for all research captured under the "total research output" variable.
Editorial Roles	Positions held by individuals at journal outlets. i.e., • Editorial board member • Editor (Associate)
Industry Activities	Involvement in activities outside academia but related to the individual's academic expertise, such as company board member or consultant.
Discipline Activities	Involvement in discipline-related activities outside their institution, such as a Chair of an academic association or a conference programme.
PhD advising	Supervision (co, 1st, 2nd, primary, or secondary) of doctoral students to completion.

Following the data collection procedure, I was able to record the number of career-advancing decisions that have taken place over the last several years and the research and service performance that the career advancement was based upon for 561 individual faculty. Table 12 provides a breakdown of the study's population and data collected.

Table 12. Overview of Data Captured

Country	Population	Institutions where data was captured	Faculty advancement recorded
Ireland	9	7	21
United Kingdom	100	36	239
Australia	37	10	42
New Zealand	8	3	17
Canada	31	8	37
United States	142	37	205
Total	***327***	***101***	***561***

Data Analysis

Once the data had been collected and cleaned up, I recorded it onto a spreadsheet and sorted it for three levels of analysis, overall signal noise (by rank), internal signal noise (by institution), and external signal noise (by country). To conduct the analysis, I measured the descriptive statistics for each variable, such as the minimum (min), maximum (max) output, mean, median, standard deviation (SD), and relative standard deviation (RSD). Using these descriptive statistics, I assessed the level of variance regarding the career-advancing decisions of the faculty. Using RSD, I can determine the level of dispersion among the productivity of the faculty. RSD (also referred to as the coefficient of variation) is a popular method for calculating the relative dispersion within the data and is measured by dividing the standard deviation by the mean and then multiplying it by 100% (Kolluri, 2016). Using this approach, I determined the level of signal noise coming from high levels of variance in the academic career script role models signalled.

To display the analysed data in tables that could be appropriately interpreted by readers, the standard deviation was rounded down to two decimal places. The mean was

also rounded to the nearest whole number except for the 5-year IF which was rounded down by 2 decimal places. The RSD was then calculated using the non-rounded figures. This leads to an RSD difference for the round and non-round figures of 0.01% up to 5%. However, this difference does not alter the extent of the variance identified or the level of signal noise as a result. For example, an institution with a RSD of 80% or 85% is still making high levels of inconsistent career advancement decisions and this slight variation in percentage does not impact the study's conceptual argument.

Limitations

As this study was conducted using archival data, there existed a limitation in accessing teaching-related performance. An academic career has three aspects (i.e., research, teaching, and service). When I conducted the data collection, a faculty member's CV and institutional bio page were searched for data related to their teaching activities. While a handful of academics, mostly North American-based, listed some of the courses they taught (e.g., Introduction to Management), this was not consistent across the sample. It also did not contain additional information that would influence career-advancing decisions, such as student evaluation scores, number of students taught, delivery method, or use of pedagogical innovation, just to name a few. As a result, I omitted teaching from this study. However, many institutions apply a weighting to the academic categories that influence career-advancing decisions (e.g., 40% research, 40% teaching, and 20% service). As a result, the research and service data captured enables me to analyse 60% of the academic performance that career-advancing decisions are decided upon.

In addition to teaching, this study is also limited in the breadth of service-related data it can collect. While I rely on an academic database, W.O.S., to capture research data, I am reliant upon an individual's self-reporting to capture service-related data via CVs and institutional bios. This presents two challenges.

Firstly, it is common that individuals will report on their involvement in senior or high-profile service roles (e.g., Head of School, Director of Centre/Institution, Committee Chair amongst others) and are less likely to report on smaller service roles (e.g., Undergraduate Programme Director, involvement in committees, amongst others) that are common for junior faculty. This makes it difficult to fully measure the impact that service activities have on career advancement decisions.

Secondly, self-reported data can lead to inconsistencies. While I was initially able to identify the types of senior service roles an individual may have been involved in, individuals were inconsistent in reporting the position's timeframe (i.e., the date they began and finished holding a position). For example, holding a Deanship for one year could have potentially different impacts on a career than holding the same position for 5 or more years. As a result, I could not assess how the length of service in particular roles affected career-advancing decisions made by institutions.

Findings

Career Script Role Models Across Ranks

The analysis of rank-changing decisions across ranks presented in Table 13 identifies career script role models with varying research output. This variance is consistent across ranks with as few as one research output that increases to 20, 44, and 56 for each rank. When examining the total research output within each rank, I found high levels of inconsistency. Career script role models seem to take a varied approach with a very high RSD of 69% for Senior Lecturers and 70% for Associate Professors. Professors had a slightly lower (but still high) RSD of 57%. This signals that while there is an increase in research output as individuals advance in rank, the max and mean research outputs are not representative of the career scripts signalled.

Regarding the visibility of the journals where academics publish their articles, I found that the mean research output increases from 9 to 15 for Associate Professor and

Professor career scripts. The visibility of the journal outlets they publish in remains consistent. Similar to the total research output, I found moderately high levels of variance among the career scripts regarding journal visibility with an RSD for Senior Lecturer being 55%, Associate Professor being 50%, and Professor being 45%. This indicates that there isn't a set average 5-year impact factor (IF) of journal rating an individual must achieve to be awarded a career advancement. In the sample, I found cases of career scripts across the three ranks with research output having a zero IF.

While research quantity and visibility have either slight or no increases from the Associate Professor career scripts to the Professor career scripts, the total citation count increases significantly with a mean increase of 144%. Higher total citations may be partially explained by slightly higher output or by career longevity (i.e., the length of time a person has been publishing research). Across each rank's career scripts, the total citation has the highest variances with a RSD of 121%, 145%, and 117% for Senior Lecturer, Associate Professor, and Professor. These high RSDs are driven by some career scripts presenting zero citations up to a total of 527 citations for Senior Lecturers, 1,806 for Associate Professors, and 5,732 for Professors. Figures 4, 5 & 6 show the distribution of total citations for each of the three ranks. From the figures, we can see that there are several outliers for each of the three ranks.

Table 13. Career Script Role Models' Performance Across Ranks

Academic Rank		Total research Output	Avg 5-year IF of journals where articles were published	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
Senior Lecturer (n = 118)	Min	1	0.00	0	0	0	0	0
	Max	20	11.36	527	8	4	6	7
	Mean	**6**	**5.02**	**84**	**2**	**2**	**2**	**2**
	Median	5	4.65	43	2	1	2	1
	SD	4.35	2.77	102.31	1.66	0.83	1.15	1.67
	RSD	**6 ± 69.3%**	**5.05 ± 55.1%**	**84 ± 121.1%**	**2 ± 85.5%**	**2 ± 51.8%**	**2 ± 62.6%**	**2 ± 76.6%**
Associate Professor (n = 267)	Min	1	0.00	0	0	0	0	0
	Max	44	15.96	1806	10	19	30	11
	Mean	**9**	**6.50**	**163**	**2**	**3**	**5**	**3**
	Median	7	6.51	90	2	2	3	2

Academic Rank		Total research Output	Avg 5-year IF of journals where articles were published	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
	SD	6.09	3.25	234.93	1.52	3.28	5.17	2.30
	RSD	**9 ± 69.5%**	**6.50 ± 50.0%**	**163 ± 144.5%**	**2 ± 66.5%**	**3 ± 108.5%**	**5 ± 114.6%**	**3 ± 82.6%**
Professor (n = 176)	Min	1	0.00	0	0	0	0	0
	Max	56	16.09	5732	9	30	18	28
	Mean	**15**	**6.60**	**490**	**3**	**4**	**5**	**5**
	Median	14	6.25	350	2	2	3	4
	SD	8.80	2.99	572.04	1.96	4.57	4.21	4.28
	RSD	**15 ± 57.0%**	**6.60 ± 45.3%**	**490 ± 116.7%**	**3 ± 67.1%**	**4 ± 130.0%**	**5 ± 93.2%**	**5 ± 93.0%**

Figure 4. Distribution of Total Citations for Senior Lecturer Rank

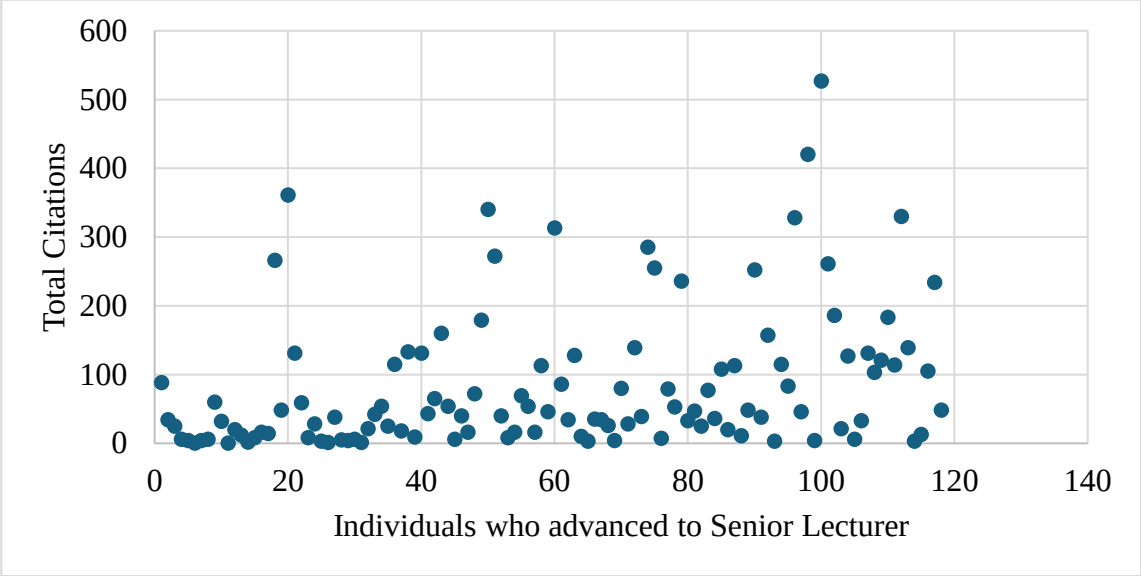


Figure 5. Distribution of Total Citations for Associate Professor Rank

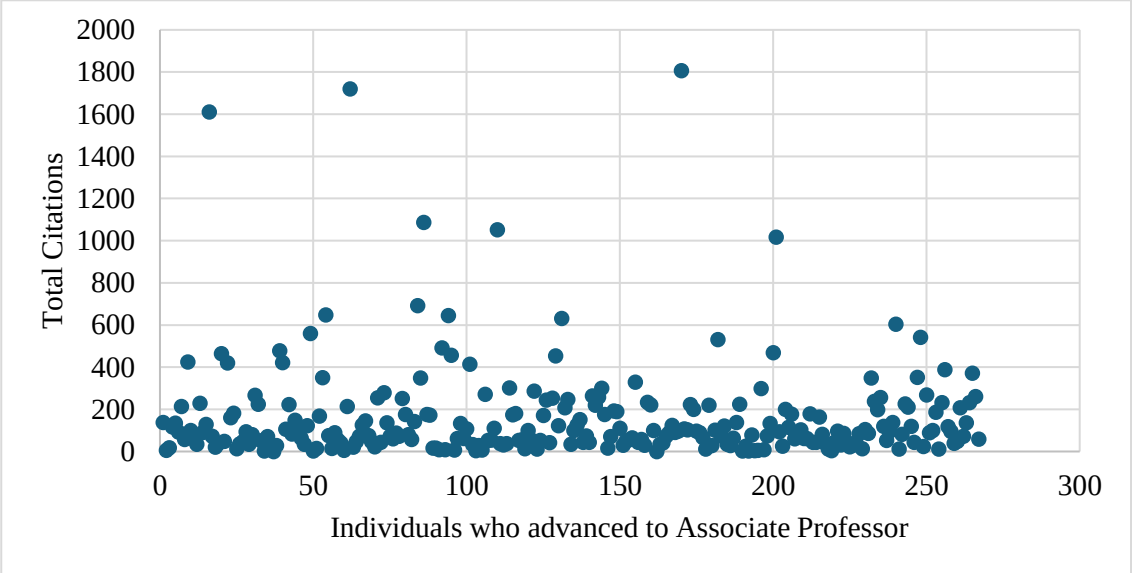
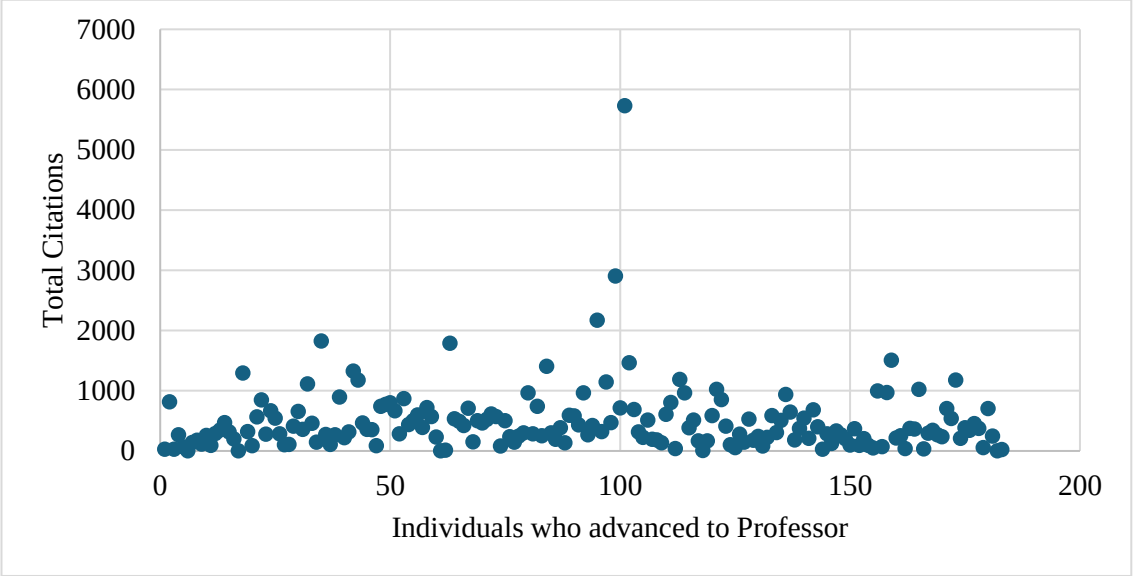


Figure 6. Distribution of Total Citations for Professor Rank



While the findings for research activities show that academic career scripts contain substantial variance within and across ranks, I do not find the same trend for service activities. The career scripts for Senior Lecturer, Associate Professor, and Professor had similar involvements in editorial roles (i.e., Positions held by individuals at journals, such as editorial board member, associate editor, or editor) with a mean of 2, 2, and 3, respectively. In contrast, I found higher levels of variance across ranks with RSDs of 86%, 67%, and 67%, respectively. This indicates that at the mean level, I identify low levels of signal noise. However, at the RSD level, higher signal noise levels exist.

For industry activities (i.e., involvement in activities outside academia but related to the individual's academic discipline), the mean results indicate relatively consistent career scripts yet a greater variance for discipline activities. For the Associate Professor and Professor career scripts, I found higher levels of inconsistency with a RSD of 109% and 130% for industry activities and 115% and 93% for discipline activities. Finally, I found high levels of variance regarding PhD advising across ranks. With the minimum number of PhD advising being zero and the maximum being 7, 11, and 28, I conclude that career scripts present inconsistencies regarding this criterion.

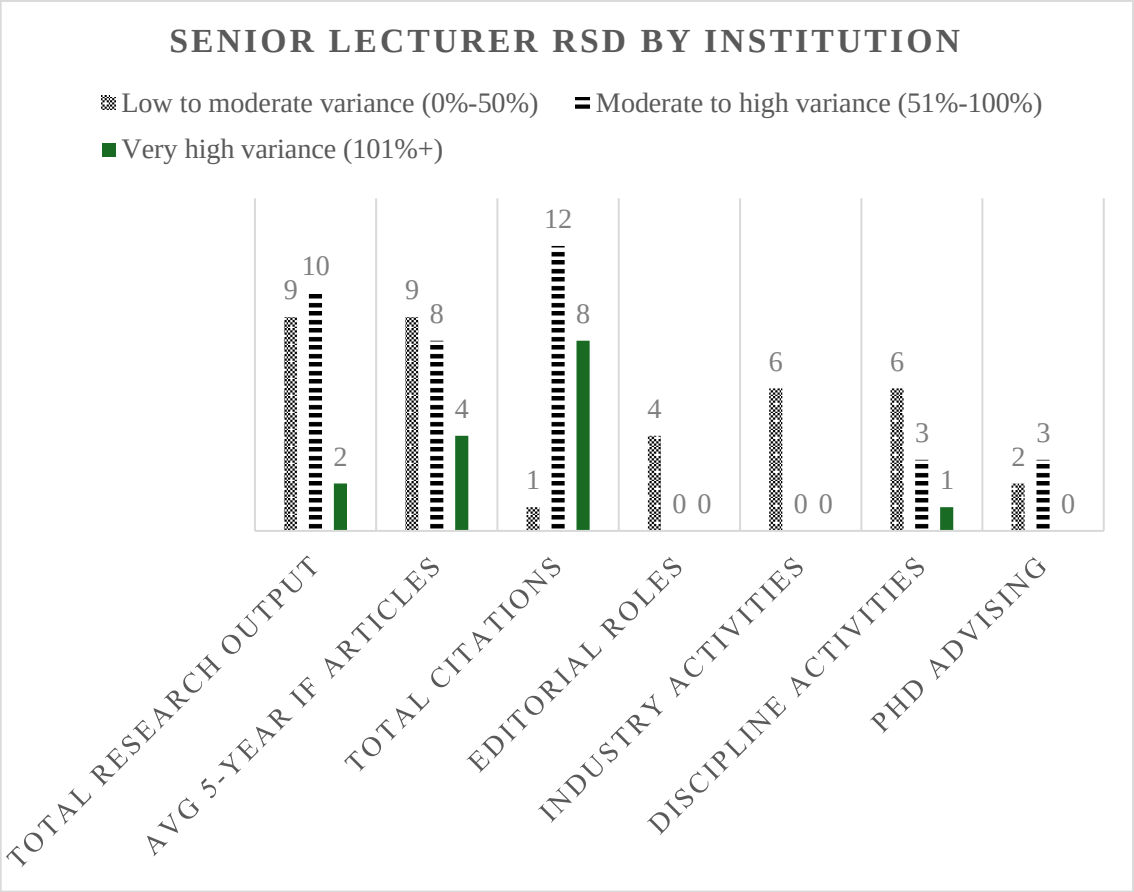
Career Script Role Models Within Institutions

To explore the rank-changing decisions within institutions, I explored the variance in RSD among the career scripts at the institutional level. Figures 7, 8, and 9 present the RSD for both research and service for each rank. They are presented based on three variance levels 1. low to moderate variance (0%-50% RSD), 2. moderate to high variance (51%-100% RSD), and very high variance (101% + RSD).

Institutions' Senior Lecturer Career Script Role Models

Figure 7 shows that most institutions present career scripts with moderate to high levels of inconsistency. From a total research output perspective, I found that out of 21 institutions, 12 have a RSD of 51% or above. I also found similar trends for avg 5-year IF. Institutions seem to present career scripts with inconsistent total citations with 12 and 8 out of the 21 institutions having a RSD between 51%-100% and 101% +, respectively. Comparing research and service performance, institutions present career scripts with relatively consistent service performance.

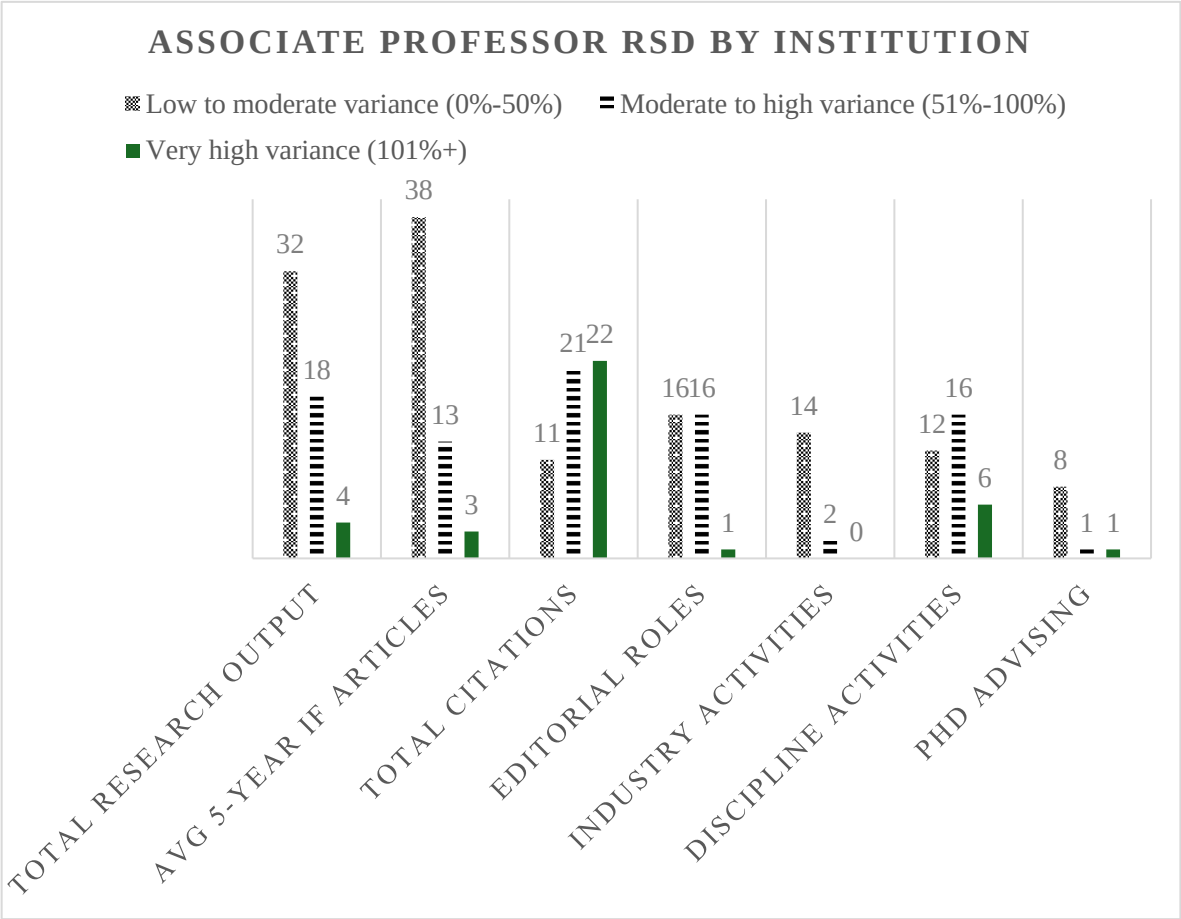
Figure 7. Senior Lecturer Career Script RSD by Institution



Institutions' Associate Professor Career Script Role Models

Figure 8 presents an equal number of institutions with low, moderate, and high levels of inconsistent career scripts for the Associate Professor rank. Among those with highly inconsistent Associate Professor career scripts, I found moderate to high and very high levels of inconsistency for total research output (18 and 4 out of 53 institutions) and average 5-year IF of journals (13 and 2 out of 53 institutions). However, unlike Senior Lecturers, institutions seem to present career scripts with varying total citations. Additionally, I found that as individuals progress to the rank of Associate Professor, the levels of inconsistent research activity remain relatively stable, yet the inconsistent career scripts begin to grow for service-related performance.

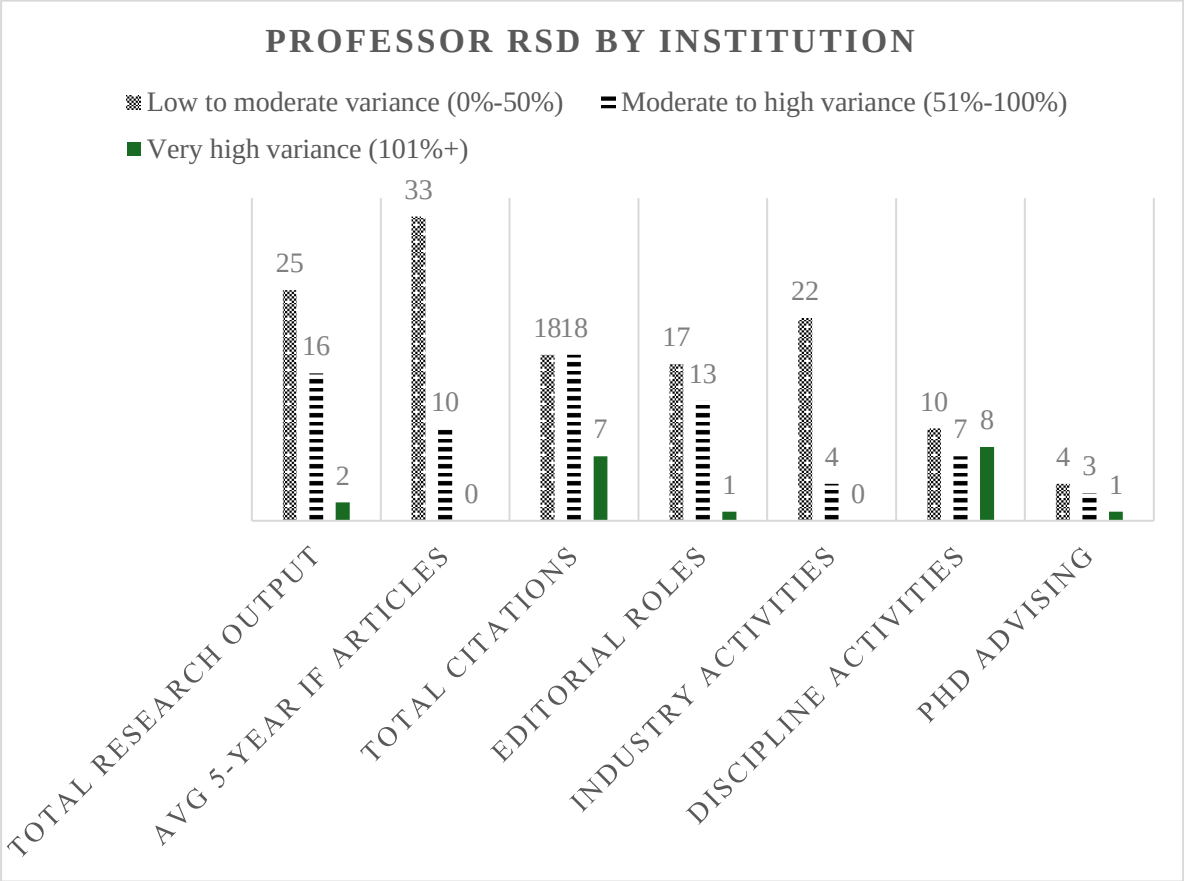
Figure 8. Associate Professor Career Script RSD by Institution



Institutions' Professor Career Script Role Models

Overall, the variance among career scripts at the Professor rank seems to be lower than the previous two ranks as per Figure 9. Except for discipline activities and total citations, the other criteria have greater amounts of low to moderate variance compared with the other two categories combined. This implies that institutions present relatively consistent career scripts at the Professor rank.

Figure 9. Professor Career Script RSD by Institution



Career Script Role Models Across Regions

When analysing the external signal noise (i.e., career scripts across countries), some regions were excluded from the analysis as a rank does not exist in that region. For example, the US and Canada were not included in the Senior Lecturer analysis as this rank is not part of their research- and teaching-active academic career progression. Additionally, where a particular country has only advanced the career of one individual to a particular rank, they were not included in the complete analysis (specifically, RSD) as appropriate comparisons cannot be drawn (e.g., the career advancement of an individual to Senior Lecturer in Ireland).

Regional Performance of Senior Lecturer Role Models

For the Senior Lecturer career scripts, Table 14 shows that individuals receive career advancement based on different levels of research output across countries. While

the min for total research output is one for Australia, New Zealand, and the UK, the maximum output ranges from 7 to 20. I found differences in the total research output for New Zealand, Australia, and the UK with 4, 5, and 7. This regional analysis presents varying career scripts at the Senior Lecturer rank. This can be determined based on the RSD of 66%, 66%, and 74% for New Zealand, the UK and Australia.

With an average 5-year IF of journal means of 4.77, 5.28, and 6.71, I found that Australia, the UK and Ireland present career scripts with higher levels of journal visibility compared to New Zealand with a mean of 2.29. Additionally, I found that New Zealand promoted faculty to Senior Lecturer ranks with lower levels of research output, which was also published in less visible journals. This is concluded based on a lower max and mean for total research output and a higher RSD in comparison to the UK and Australia. I also found that career scripts had substantially different citation distribution. This can be seen with the UK, New Zealand, and Australia having a RSD of 105%, 120%, and 186%, respectively.

From a service perspective, I found that the UK's Senior Lecturer career scripts had a high number of editorial roles, yet this was not consistent as they have a RSD of 82%. Additionally, I found variations by UK institutions regarding the discipline activity requirements with a RSD of 66%. This follows the same pattern as editorial roles, whereby the UK's Senior Lecturer career scripts have a high number of discipline activities, yet this again is not consistent. In comparison, I found little variance in the number of industry or discipline positions among the Senior Lecturer career scripts across regions. The PhD advising findings mirror that of the editorial roles and industry and discipline activities with the UK deviating from the other regions with a RSD of 87%.

Table 14. Career Script Role Model Performance: Senior Lecturer by Country

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
Australia Senior Lecturer (n = 26)	Min	1	0.00	0	0	0	0	0
	Max	12	11.36	361	2	3	2	3
	Mean	**5**	**4.77**	**46**	**1**	**2**	**2**	**2**
	Median	4	4.29	15	1	2	2	3
	SD	3.60	3.06	84.81	0.45	0.82	0.00	0.96
	RSD	**5 ± 73.8%**	**4.77 ± 64.0%**	**46 ± 186.0%**	**1 ± 37.3%**	**2 ± 49.0%**	**2 ± 0.0%**	**2 ± 42.6%**
Ireland Senior Lecturer (n = 1)	Min	9	6.71	88	0	4	0	0
	Max	9	6.71	88	0	4	0	0
	Mean	**9**	**6.71**	**88**	**-**	**4**	**-**	**-**
	Median	9	6.71	88	-	4	-	-

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
	SD	-	-	-	-	-	-	-
	RSD	**-**	**-**	**-**	**-**	**-**	**-**	**-**
New Zealand Senior Lecturer (n = 6)	Min	1	0.00	1	0	0	0	0
	Max	7	6.55	42	1	2	1	0
	Mean	**4**	**2.29**	**13**	**1**	**1**	**1**	**-**
	Median	3	1.38	6	1	1	1	-
	SD	2.42	2.68	15.77	-	0.58	0.00	-
	RSD	**4 ± 66.1%**	**2.29 ± 117.4%**	**13 ± 119.7%**	**-**	**1 ± 43.3%**	**1 ± 0.0%**	**-**
UK Senior Lecturer (n = 85)	Min	1	0.00	3	0	0	0	0
	Max	20	10.62	527	8	3	6	7
	Mean	**7**	**5.28**	**101**	**2**	**2**	**2**	**2**

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
	Median	6	5.00	54	2	1	1	1
	SD	4.54	2.61	106.31	1.92	0.71	1.24	1.86
	RSD	**7 ± 66.2%**	**5.28 ± 49.4%**	**101 ± 104.9%**	**2 ± 82.4%**	**2 ± 47.1%**	**2 ± 65.7%**	**2 ± 86.5%**

Regional Performance of Associate Professor Role Models

For Associate Professors, Table 15 shows that across regions career scripts contain varied levels of total research output, with the means varying from 7 to 14. This varied approach also exists within each region as they present a moderate RSD of above 50%. This is especially true for Australia and the US with a RSD of 87% and 70%, respectively. I found that all regions except New Zealand had Associate Professor career scripts with only one research output, each being a journal article.

For research visibility, I found that regions took a varied approach. For example, Ireland, the UK, Canada, and the US presented relative consistency (i.e., the mean average 5-year IF journals of 5.57, 6.04, 6.84, and 7.19, respectively). However, New Zealand and Australia present Associate Professor career scripts with lower overall research visibility with means of 4.78 and 3.32. Table 16 shows high levels of inconsistent career scripts within countries. For example, Australia and New Zealand have the highest RSD at 64% and 79%. A consistent approach by regions is Associate Professor career scripts with an average IF from zero to one.

From a total citation perspective, I found that Associate Professor career scripts are highly diverse both within and across regions with ranges from 91 to 303. For each region, I found a RSD of above 100%, except for Ireland and New Zealand. However, they are still high at a RSD of 86% and 95%.

Overall, I found that the Associate Professor career scripts contain high levels of variance across and within regions. The widespread distribution applies to the quantity and visibility of research with career scripts of one and up to 44 research outputs and IF scores of zero to 16. I also found high levels of variance regarding the exposure and discipline response to their research with career scripts presenting zero citations while others show a total citation count of 1,806.

From a service perspective, the number of editorial roles in the career scripts is consistent across regions with a mean expectation of two to three roles. However, the level of variance increases when I look within regions. For example, I found that the UK, Australia, and the US have RSDs of 63%, 66%, and 71%. Similarly, industry and discipline activities show little variance across regions regarding their mean but have higher levels of variance within regions. This presents highly inconsistent Associate Professor career scripts regarding the number of industry or discipline activities.

From a PhD advising perspective, I found that each region promoted individuals with zero PhD supervision experience. However, among those who have participated in PhD advising, the number of students supervised varies greatly with the maximum number ranging from 2 to 11.

Table 15. Career Script Role Model Performance: Associate Professor by Country

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
Australia Associate Professor (n = 10)	Min	1	0.89	13	0	0	0	0
	Max	40	9.49	1610	4	5	2	7
	Mean	**14**	**4.78**	**303**	**2**	**3**	**1**	**4**
	Median	10	4.48	117	2	4	1	4
	SD	12.21	3.07	487.02	1.53	1.52	0.50	3.20
	RSD	**14 ± 87.2%**	**4.78 ± 64.2%**	**303 ± 160.8%**	**2 ± 65.5%**	**3 ± 44.6%**	**1 ± 40.0%**	**4 ± 85.4%**
Canada	Min	1	0.00	0	0	0	0	0
	Max	15	12.97	648	3	8	5	2

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
Associate Professor (n = 21)	**Mean**	**7**	**6.84**	**174**	**2**	**3**	**3**	**1**
	Median	6	7.48	97	2	1	2	1
	SD	4.04	3.68	197.58	0.84	4.04	1.86	0.50
	RSD	**7 ± 55.8%**	**6.84 ± 53.9%**	**174 ± 113.5%**	**2 ± 38.0%**	**3 ± 121.2%**	**3 ± 69.8%**	**1 ± 40.0%**
Ireland Associate Professor (n = 15)	Min	1	1.15	5	0	0	0	0
	Max	16	11.86	424	4	3	9	6
	Mean	**7**	**5.57**	**123**	**3**	**2**	**4**	**6**
	Median	7	4.61	100	3	2	2	6
	SD	3.89	2.74	105.01	1.14	1.00	3.74	-
	RSD	**7 ± 58.3%**	**5.57 ± 49.2%**	**123 ± 85.7%**	**3 ± 43.9%**	**2 ± 50.0%**	**4 ± 104.6%**	**-**

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
New Zealand Associate Professor (n = 10)	Min	3	0.05	3	0	0	0	0
	Max	24	9.22	267	2	1	0	3
	Mean	**12**	**3.32**	**91**	**2**	**1**	**-**	**2**
	Median	11	2.97	61	2	1	-	2
	SD	5.93	2.62	86.12	0.58	0.00	-	0.90
	RSD	**12 ± 51.1%**	**3.32 ± 79.0%**	**91 ± 95.0%**	**2 ± 38.5%**	**1 ± 0.0%**	**-**	**2 ± 48.4%**
UK Associate Professor (n = 78)	Min	1	0.00	2	0	0	0	0
	Max	24	12.85	1017	6	11	19	11
	Mean	**9**	**6.04**	**140**	**2**	**3**	**4**	**4**
	Median	8	6.44	88	2	1	2	4

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
	SD	5.53	2.86	161.36	1.26	3.11	3.75	2.80
	RSD	**9 ± 64.0%**	**6.04 ± 47.3%**	**140 ± 115.4%**	**2 ± 63.2%**	**3 ± 98.6%**	**4 ± 106.7%**	**4 ± 70.0%**
US Associate Professor (n = 133)	Min	1	0.00	0	0	0	0	0
	Max	44	15.96	1806	10	19	30	6
	Mean	**9**	**7.19**	**173**	**2**	**3**	**5**	**2**
	Median	7	7.05	90	2	2	3	1
	SD	6.06	3.30	264.13	1.71	4.01	5.98	1.56
	RSD	**9 ± 69.6%**	**7.19 ± 45.8%**	**173 ± 152.4%**	**2 ± 70.5%**	**3 ± 129.8%**	**5 ± 110.4%**	**2 ± 77.9%**

Regional Performance of Professor Role Models

As can be seen in Table 16, which presents career scripts for Professor rank, the US and the UK present similar career scripts regarding total research output. For example, both regions present Professor career scripts with the lowest and highest research output among the sample. Overall, regions present inconsistent career scripts with research output signalling a min total output ranging from 3 to 7, while the max output ranges from 19 to 56. While the US has a slightly higher mean, the UK has a larger variance of the two regions with a RSD of 60.9% compared to 50.0% for the US. In comparison, the max output for Ireland, Canada, and Australia isn't as high with 19, 22, and 24, respectively. The UK and the US also have some of the lowest and highest journal IFs, with a minimum of zero in both countries and a maximum of 13.6 for the UK and 16.1 for the US. Additionally, the UK, the US, and Canada have higher average 5-year journal IFs with a mean of 5.95, 7.45, and 7.78, respectively, relative to Australia and Ireland (means of 4.06 and 3.26). This signals varying Professor career scripts regarding the IF of research published.

In comparison to the Senior Lecturer and Associate Professor career scripts, I found that the Professor career scripts have slightly lower levels of citations across and within regions. The mean total citations of Australia, Canada, Ireland, the UK, and the US range from 109 to 668. When I look within each region, I can see a high RSD of 59% (Australia), 67% (Canada), 79% (Ireland), 84% (UK), and 118% (US). It seems that the high RSD figure for the US is driven by a min total citation of zero and a max of 5,732 which is substantially higher than the next highest max of 1,504 which belongs to the UK.

From a service perspective, the Professor's career scripts present a consistent mean for editorial roles across regions but are inconsistent within regions. The level of variance increases within regions with the US, the UK, Canada and Australia having a RSD of 63%, 70%, 76%, and 108%.

From an industry activity perspective, the US presents Professor career scripts with varying levels of industry involvement. The findings show that Industry activity involvement is relatively consistent across regions except for the US with a mean of six, which is double the mean of the other regions. However, they currently have the highest variance with a RSD of 123%.

Similar to the Associate Professor career scripts, all regions had enacted Professor career scripts with zero PhD supervision. Among those who have supervised students, the number varies greatly with the max number ranging from 3 to 28**.** The UK and the US have similar PhD advising figures with a mean of four and a RSD of 63% and 70%.

Table 16. Career Script Role Model Performance: Professor by Country

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
Australia Professor (n = 6)	Min	3	3.27	1	0	0	0	0
	Max	24	5.05	470	6	2	1	28
	Mean	**17**	**4.06**	**270**	**3**	**2**	**1**	**10**
	Median	19	3.85	302	1	2	1	5
	SD	7.28	0.77	158.69	2.89	0.71	-	12.61
	RSD	**17 ± 44%**	**4.06 ± 19.0%**	**270 ± 59%**	**3 ± 108.3%**	**2 ± 47.1%**	**-**	**10 ± 132.7%**
Canada Professor (n = 16)	Min	5	3.57	85	0	0	0	0
	Max	22	15.16	1115	9	3	13	3
	Mean	**11**	**7.78**	**434**	**3**	**2**	**4**	**2**
	Median	11	6.94	385	3	2	2	2

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
	SD	5.57	3.37	289.21	2.62	0.82	3.88	1.00
	RSD	**11 ± 49%**	**7.78 ± 43.3%**	**434 ± 67%**	**3 ± 75.9%**	**2 ± 40.8%**	**4 ± 102.1%**	**2 ± 50.0%**
Ireland Professor (n = 5)	Min	7	1.21	25	0	0	0	0
	Max	19	6.14	259	3	5	15	10
	Mean	**14**	**3.26**	**109**	**2**	**3**	**8**	**10**
	Median	15	3.16	103	2	2	7	10
	SD	5.00	1.62	86.66	0.82	2.08	7.02	-
	RSD	**14 ± 36%**	**3.26 ± 49.6%**	**109 ± 79%**	**2 ± 40.8%**	**3 ± 78.1%**	**8 ± 91.6%**	**-**
New Zealand Professor (n = 1)	Min	28	7.81	1293	0	0	0	0
	Max	28	7.81	1293	0	0	0	0
	Mean	**28**	**7.81**	**1293**	**-**	**-**	**-**	**-**

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
	Median	28	7.81	1293	-	-	-	-
	SD	-	-	-	-	-	-	-
	RSD	**-**	**-**	**-**	**-**	**-**	**-**	**-**
UK Professor (n = 76)	Min	1	0.00	3	0	0	0	0
	Max	56	16.09	1504	7	7	15	11
	Mean	**15**	**6.25**	**391**	**3**	**3**	**3**	**4**
	Median	14	5.95	288	2	1	2	4
	SD	9.13	2.82	328.42	1.85	2.08	2.86	2.71
	RSD	**15 ± 61%**	**6.25 ± 45.0%**	**391 ± 84%**	**3 ± 69.7%**	**3 ± 82.1%**	**3 ± 87.7%**	**4 ± 63.2%**
US Professor (n = 72)	Min	1	0.00	0	0	0	0	0
	Max	41	13.61	5732	9	30	18	10

Country Rank		Total Research Output	Avg 5-year IF of journals	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
	Mean	**17**	**7.45**	**668**	**3**	**6**	**6**	**4**
	Median	14	7.83	482	3	4	4	3
	SD	8.32	2.84	789.76	1.98	7.18	4.90	2.74
	RSD	**17 ± 50%**	**7.45 ± 38.1%**	**668 ± 118%**	**3 ± 63.2%**	**6 ± 123.1%**	**6 ± 84.4%**	**4 ± 70.0%**

Control for Institutional Type

The above analysis explores ranking-changing decisions at the rank, institution, and region levels. However, it does not explore it based on the prestige of an institution. While the THEs world rankings were used as the population of research and teaching active higher education institutions, the institutions on this list are rated based on their research and teaching performance. As a result, each institution has created a level of prestige based on this performance that may influence how they make rank-changing decisions. This address this, rank-changing decisions were analysed based on THEs 2020 World Ranking scores. Tables 17, 18, and 19 present an analysis of these decisions at the rank level based on the institution's THEs 2020 World Ranking and are grouped into 100 categories. These tables provide two additional insights for the analysis of this study.

Firstly, they show that the sample used in this study presents an even distribution of institutions across the ranking categories. For example, the highest institutional score represented for Senior Lecturer, Associate Professor, and Professor is 301-400 (28%), 101-200 & 301-400 (both at 19%), and 1-100 (38%) respectively. After the highest representation, the remaining institutions are equally split with the lowest representation being institutions with a score of 601-1001 across all three ranks.

Secondly, these tables show that the inconsistent nature of rank-changing decisions is not unique to particular types of institutions. For example, across the three ranks and six ranking categories, RSD shows moderate to high levels of variance in an institution's decision-making.

Table 17. Senior Lecturer Productivity Distributed Across THE's 2020 Institutional World Rankings

Senior Lecturer n: 118		Total Research Output	Avg 5-year IF	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
n: 23 Times Higher Education 2020 World Ranking ***1-100***	Min	1	0	4	8	1	1	1
	Max	20	10.63	527	8	3	3	7
	Mean	**7**	**6**	**145**	**8**	**2**	**2**	**3**
	Median	6	6.48	83	8	1.5	1	2
	SD	4.52	2.92	147.92	0.00	0.70	0.76	2.19
	RSD	**7 ± 66.2%**	**6 ±45.6%**	**145 ± 101.8%**	**8 ± 0.0%**	**2 ± 42.8%**	**2 ± 50.9%**	**3 ± 77.4%**
n: 21 Times Higher Education 2020 World Ranking ***101-200***	Min	1	0.88	3	1	1	1	2
	Max	16	11.36	340	2	1	6	2
	Mean	**7**	**5**	**96**	**2**	**1**	**3**	**2**
	Median	6	4.89	59	1.5	1	2	2
	SD	4.18	2.79	93.14	0.50	0.00	2.16	0.00
	RSD	**7 ± 63.6%**	**5 ± 52.1%**	**96 ± 97.2%**	**2 ± 33.3%**	**1 ± 0.0%**	**3 ± 72.0%**	**2 ± 0.0%**
n: 20 Times Higher Education 2020 World Ranking ***201-300***	Min	1	0	1	1	1	1	1
	Max	13	8.23	313	3	4	3	3
	Mean	**7**	**5**	**85**	**2**	**2**	**2**	**2**
	Median	6	4.845	43	2	1	2	1
	SD	3.34	2.10	91.60	1.00	1.30	0.82	0.76
	RSD	**7 ± 50.2%**	**5 ± 44.1%**	**85 ± 108.0%**	**2 ± 50.0%**	**2 ± 74.2%**	**2 ± 40.8%**	**2 ± 50.9%**

Senior Lecturer n: 118		Total Research Output	Avg 5-year IF	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
n: 33 Times Higher Education 2020 World Ranking ***301-400***	Min	1	0	0	1	1	1	1
	Max	15	9.5	252	3	3	4	4
	Mean	**5**	**5**	**53**	**2**	**2**	**2**	**3**
	Median	5	4.654	40	2	1	2	3
	SD	3.96	2.64	55.84	0.70	0.76	0.90	1.25
	RSD	**5 ± 72.1%**	**5 ± 51.4%**	**53 ± 104.8%**	**2 ± 40.8%**	**2 ± 50.9%**	**2 ± 47.1%**	**3 ± 46.8%**
n: 17 Times Higher Education 2020 World Ranking ***401-600***	Min	1	0	1	1	1	1	0
	Max	19	7.9	330	2	3	3	0
	Mean	**7**	**3**	**64**	**1**	**2**	**2**	**-**
	Median	6	3.63	34	1	2	1	-
	SD	5.63	2.32	85.34	0.47	0.75	0.76	-
	RSD	**7 ± 81.9%**	**3 ± 68.5%**	**64 ± 134.3%**	**1 ± 35.4%**	**2 ± 41.6%**	**2 ± 50.9%**	**-**
n: 4 Times Higher Education 2020 World Ranking ***601-1001***	Min	1	0	8	0	2	1	1
	Max	8	4.65	28	0	2	1	1
	Mean	**4**	**3**	**20**	**-**	**2**	**1**	**1**
	Median	3	3.158	21	-	2	1	1
	SD	2.95	1.81	8.05	-	0.00	0.00	0.00
	RSD	**4 ± 78.6%**	**3 ± 66.1%**	**20 ± 41.3%**	**-**	**2 ± 0.0%**	**1 ± 0.0%**	**1 ± 0.0%**

Table 18. Associate Professor Productivity Distributed Across THE's 2020 Institutional World Rankings

Associate Professor n: 267		Total Research Output	Avg 5-year IF	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
n: 49 Times Higher Education 2020 World Ranking ***1-100***	Min	1	0	4	1	1	1	1
	Max	18	14.15	1086	5	8	30	2
	Mean	**8**	**8**	**191**	**2**	**3**	**7**	**1**
	Median	8	7.42	133	2	3	2.5	1
	SD	4.04	2.87	196.00	1.25	2.22	7.98	0.40
	RSD	**8 ± 47.6%**	**8 ± 37.3%**	**191 ± 102.5%**	**2 ± 53.5%**	**3 ± 64.4%**	**7 ± 116.3%**	**1 ± 33.3%**
n: 52 Times Higher Education 2020 World Ranking ***101-200***	Min	2	0.35	4	1	1	1	1
	Max	20	12.85	1052	6	8	9	4
	Mean	**8**	**7**	**143**	**2**	**3**	**3**	**3**
	Median	7	7.035	84	2	1	3	2.5
	SD	4.47	2.62	204.52	1.26	2.59	2.29	1.50
	RSD	**8 ± 54.6%**	**7 ± 39.4%**	**143 ± 143.2%**	**2 ± 56.4%**	**3 ± 94.0%**	**3 ± 68.0%**	**3 ± 60.0%**
n: 43 Times Higher Education 2020 World Ranking ***201-300***	Min	1	0.89	6	1	1	1	1
	Max	44	13.21	1806	10	19	9	7
	Mean	**10**	**6**	**215**	**3**	**4**	**3**	**3**
	Median	7	6.16	89	2	1.5	2	2
	SD	7.82	3.27	373.34	2.20	5.39	1.95	1.83
	RSD	**10 ± 81.0%**	**6 ± 50.6%**	**215 ± 173.6%**	**3 ± 86.3%**	**4 ± 125.3%**	**3 ± 74.2%**	**3 ± 65.5%**

Associate Professor n: 267		Total Research Output	Avg 5-year IF	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
n: 50 Times Higher Education 2020 World Ranking ***301-400***	Min	1	0	5	1	1	1	1
	Max	40	14.29	1610	4	5	17	11
	Mean	**10**	**6**	**187**	**2**	**2**	**4**	**6**
	Median	8	5.945	97	2	1	2	6
	SD	8.26	3.34	255.03	1.09	1.17	3.64	3.31
	RSD	**10 ± 78.8%**	**6 ± 51.9%**	**187 ± 136.2%**	**2 ± 52.7%**	**2 ± 63.2%**	**4 ± 100.0%**	**6 ± 53.4%**
n: 43 Times Higher Education 2020 World Ranking ***401-600***	Min	1	0	0	1	1	1	1
	Max	24	15.96	631	5	5	17	6
	Mean	**9**	**6**	**126**	**2**	**2**	**4**	**2**
	Median	7	5.34	87	2	1	3	2
	SD	5.21	3.81	127.24	1.23	1.74	4.01	1.43
	RSD	**9 ± 60.6%**	**6 ± 63.1%**	**126 ± 101.1%**	**2 ± 58.7%**	**2 ± 72.6%**	**4 ± 91.7%**	**2 ± 59.5%**
n: 30 Times Higher Education 2020 World Ranking ***601-1001***	Min	1	0	0	1	1	1	1
	Max	16	11.05	301	6	11	19	6
	Mean	**6**	**5**	**86**	**2**	**3**	**6**	**3**
	Median	5	5.56	44.5	2	1	4	3.5
	SD	3.79	2.98	89.03	1.66	3.47	5.34	2.05
	RSD	**6 ± 60.4%**	**5 ± 58.6%**	**86 ± 103.8%**	**2 ± 68.5%**	**3 ± 100.7%**	**6 ± 92.5%**	**3 ± 61.6%**

Table 19. Professor Productivity Distributed Across THE's 2020 Institutional World Rankings

Professor n: 176		Total Research Output	Avg 5-year IF	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
n: 66 Times Higher Education 2020 World Ranking ***1-100***	**Min**	**1**	**0**	**1**	**1**	**1**	**1**	**1**
	Max	**43**	**16.09**	**5732**	**7**	**30**	**15**	**7**
	Mean	**14**	**7**	**570**	**3**	**4**	**4**	**4**
	Median	**13**	**6.125**	**320**	**2**	**1**	**2.5**	**4**
	SD	**7.70**	**3.15**	**792.57**	**1.94**	**6.44**	**3.30**	**2.17**
	RSD	**14 ± 54.1%**	**7 ± 47.2%**	**570 ± 139.0%**	**3 ± 67.7%**	**4 ± 177.4%**	**4 ± 88.9%**	**4 ± 56.2%**
n: 26 Times Higher Education 2020 World Ranking ***101-200***	**Min**	**1**	**0**	**0**	**1**	**1**	**1**	**2**
	Max	**40**	**12.6**	**1827**	**9**	**16**	**18**	**7**
	Mean	**16**	**7**	**531**	**3**	**6**	**6**	**4**
	Median	**15**	**7.65**	**402**	**2.5**	**3.5**	**3**	**4.5**
	SD	**8.00**	**2.81**	**487.56**	**2.42**	**5.27**	**5.51**	**1.77**
	RSD	**16 ± 50.2%**	**7 ± 40.3%**	**531 ± 91.8%**	**3 ± 73.9%**	**6 ± 90.4%**	**6 ± 98.6%**	**4 ± 42.5%**
n: 21 Times Higher Education 2020 World Ranking ***201-300***	**Min**	**3**	**1.21**	**26**	**1**	**1**	**1**	**2**
	Max	**37**	**15.16**	**813**	**9**	**4**	**17**	**28**
	Mean	**16**	**6**	**325**	**3**	**2**	**6**	**8**
	Median	**14**	**5.52**	**280**	**2**	**1.5**	**7**	**3**
	SD	**9.07**	**2.90**	**220.71**	**2.10**	**1.04**	**4.69**	**8.58**
	RSD	**16 ± 58.5%**	**6 ± 47.6%**	**325 ± 67.9%**	**3 ± 74.6%**	**2 ± 54.9%**	**6 ± 75.1%**	**8 ± 111.2%**

Professor n: 176		Total Research Output	Avg 5-year IF	Total Citations	Editorial Roles	Industry Activities	Discipline Activities	PhD Advising
n: 30 Times Higher Education 2020 World Ranking ***301-400***	**Min**	**2**	**0.82**	**1**	**1**	**1**	**1**	**2**
	Max	**56**	**12.82**	**2168**	**6**	**9**	**12**	**11**
	Mean	**19**	**7**	**544**	**3**	**4**	**4**	**5**
	Median	**15.5**	**7.745**	**429.5**	**3**	**2.5**	**3.5**	**3**
	SD	**11.47**	**2.88**	**439.29**	**1.57**	**2.74**	**2.99**	**3.64**
	RSD	**19 ± 59.0%**	**7 ± 40.8%**	**544 ± 80.7%**	**3 ± 54.1%**	**4 ± 70.2%**	**4 ± 71.7%**	**5 ± 70.8%**
n: 26 Times Higher Education 2020 World Ranking ***401-600***	**Min**	**3**	**0.97**	**83**	**1**	**1**	**1**	**1**
	Max	**42**	**13.61**	**1404**	**9**	**6**	**15**	**10**
	Mean	**15**	**6**	**407**	**3**	**3**	**4**	**5**
	Median	**13.5**	**5.99**	**349.5**	**2**	**2**	**2**	**4.5**
	SD	**7.65**	**2.95**	**306.86**	**1.95**	**2.10**	**4.18**	**3.62**
	RSD	**15 ± 51.6%**	**6 ± 46.0%**	**407 ± 75.5%**	**3 ± 64.9%**	**3 ± 75.5%**	**4 ± 94.9%**	**5 ± 75.0%**
n: 13 Times Higher Education 2020 World Ranking ***601-1001***	**Min**	**4**	**2.37**	**8**	**1**	**5**	**1**	**1**
	Max	**24**	**10.37**	**711**	**5**	**5**	**15**	**7**
	Mean	**12**	**6**	**308**	**3**	**5**	**4**	**3**
	Median	**11**	**5.3**	**164**	**2**	**5**	**2**	**1**
	SD	**6.39**	**2.46**	**228.21**	**1.18**	**0.00**	**5.35**	**2.40**
	RSD	**12 ± 51.6%**	**6 ± 43.8%**	**308 ± 74.2%**	**3 ± 45.8%**	**5 ± 0.0%**	**4 ± 121.6%**	**3 ± 85.7%**

Discussion

This chapter explores how consistent the rank-changing decisions signalled by institutions are. By analysing the academic productivity of academic career script role models signalled over the last several years after an institution awards career advancement, I can determine the level of consistency among the decisions that are signalled to potential faculty. To achieve this, the research and service performance of individuals who recently had a change in academic rank was analysed at the rank, institution, and region levels.

This study's analysis showed that, regardless of rank, institutions make inconsistent rank-changing decisions at the rank, institution, and region levels. Even when I control for institutional type (i.e., THEs 2020 World Rankings), the presence of inconsistent decision-making persists. For example, on the surface, career script role models seem to follow a consistent pattern. However, the RSD of each rank showed that scripts varied greatly in terms of academic performance. While the analysis shows gradual increases in the quantity of research output (i.e., output increasing as one moves up academic ranks), the academic community's response to each research item, in the form of citations, is widely different. This may be explained by how the academic community uses research in different ways. For example, a faculty member who researches in a niche area may receive fewer citations than a faculty member who researches in a more mainstream or topical area. From the findings of this study, institutions seem to put less weight on citation counts than individuals do within the academic industry. Additionally, from a service perspective, I found that institutions make career-advancing decisions across all three ranks based on varying levels of involvement in these activities. This is particularly noticeable when all three ranks present script role models with little to zero involvement in service activities. For example, all three ranks presented scripts with zero postgraduate research student supervision. These findings show that regardless of rank,

the institution, or the region, individuals seeking career advancement are presented with career script role models that are unique to one another.

This inconsistent approach to career advancement decisions by institutions may explain why many in the literature (Lindgreen and Di Benedetto, 2022; Lissoni et al., 2011; Baruch & Hall, 2004, amongst others) express various views on what drives academic success. At an institutional level, there are two possible ways in which these inconsistent decisions may be creating signal issues for individuals.

Firstly, those individuals who look to the signalled career scripts for guidance will be presented with varying role models that may clash with the initial career-advancing signals sent by institutions via their signalled written career scripts.

Secondly, as an individual looks to advance their career, they may use their past decisions to influence future ones. For example, if a particular performance achieved advancement to Associate Professor in their institution, this individual may assume that a gradual increase in the same types of performance will lead to advancement to the Professor rank over time. While I have discussed why institutions need to take this approach, continuing with a lack of clarity for individuals surrounding the process and influences on decision-making, may in some cases, exacerbate a disconnect between the performance of the individual and the expectations of the institution and continue causing uncertainty for individuals about career-advancing processes. Due to this internal signal noise, it is understandable that individuals would express anecdotes to peers that one activity over another is most important, or that it is impossible to get promoted at a particular institution. Such scenarios are likely to exist where institutions have had to deviate regularly from their written career scripts and where a general understanding may not exist about why this was needed.

Based on these findings, I conclude that the academic career script perception is subject to various types of signal noise. Whether it be the inconsistent approach to

citations, service performance, or overall research output, faculty are presented with various signals that conflict with each other the more they explore these career scripts. The findings indicate that individuals are experiencing this signal noise at three levels. Firstly, as institutions need to provide ambiguous promotion criteria (via written career scripts) and award advancement that fluctuates to better align institutional strategies with new market demands (Mu & Hatch, 2021) they create internal signal noise for an individual between the signalled promotion criteria and the performance of the career script role models. This results in what Gomulya and Mishina (2017) describe as impacting the credibility of the initial signal or process.

Additionally, as individuals continue to build career capital external to the institution (as discussed in Chapter 2) and continue to be mobile (Cohen et al., 2020; Laudel & Bielick, 2019) they are presented with various career script role models whose performance will vary greatly. Such a scenario leads to additional signal noise at the rank level (i.e., overall signal noise) and regional level (i.e., external signal noise). This study shows that individuals are presented with vast amounts of external signal noise as each institution makes unique career-advancing decisions. This creates challenges for individuals who have created general interpretations of the performance expectations associated with particular academic ranks based on internal and external noise interpreted in their career to date. For example, individuals who have had employment at both Australian and US institutions will have experienced institution-specific knowledge that may clash with institutional career scripts across regions. This may then make it difficult for the individual to try to align with the new institution's written career script. For such individuals, they are presented with external noise in addition to the possible internal noise they may observe. It also confirms Goodacre, Gaunt, and Henry's (2021) claim that the academic performance benchmarks presented by some regions may not aid individuals in other regions.

Chapter 2 argued that institutions need to signal ambiguous promotion criteria due to universal policies and to achieve strategic objectives. In this Chapter, I have shown that this results in various rank-changing decisions being made as institutions best align an individual's productivity with its strategic objectives and the external market's definition of excellence. This leads faculty seeking career advancement to interpret a variety of career script role models at the rank, institution and region levels. This finding calls into question Laudel and colleagues' (2019) claim that career scripts rarely change. It also questions the applicability of career scripts as a mechanism to guide career decision-making. As institutions continue to make inconsistent rank-changing decisions and as individuals continue to receive various levels of signal noise (overall, internal, and external), the resulting academic career script will remain in a constant state of fluctuation. This limits its ability to accurately guide individuals in achieving a desired career path.

In addressing this research question, this study contributes to the career script literature. The identification of how career scripts are created highlights the inconsistent nature of them. This has implications for their use which contradicts the advice offered in the career script literature. It also provides greater insights into Helgesson and Sjogren's (2019) claim that excellence could solely be determined at insider discretion. The findings show that not all ranks are created equal. While academia may use similar titles across regions, the career scripts behind those titles are significantly different.

Implications for the Academic Career

Based on the findings of this study, one is left to ponder the role that external academics play in higher education quality assurance activities. If all is not equal, how do we benefit from having external academics sit on recruitment or promotion boards as well as taking on external examining roles when their interpretation of academic excellence may not align with the institutions? Additionally, how do we create review

boards for funding and grant applications with suitably qualified personnel? A key takeaway is that we cannot take an academic title for granted and assume the individual's achievements solely based on their title as they may not align with the institutional or regional academic career scripts. This highlights the need for institutions to do their due diligence when working with external academics. This also has implications for individual career decisions. Replicating decisions made by past academics does not guarantee the same outcome. Instead, it shows that individuals have more agency over their career advancement than may be initially thought. Career script role models show individuals how career advancement can be achieved by taking various pathways. They also signal the extent to which the institution is willing to deviate from its written career scripts to award career advancement.

Overall, I can conclude that across the sample, higher education institutions create signal noise, whether intentionally or not by signalling varying career script role models. This noise is present in senior academic research and service performance. As institutions use academic career advancement to achieve long- and short-term strategic needs, they create signal credibility issues regarding their initial written career script signals. As a result, individuals try to interpret two sets of signals (i.e., the written script and the role models created by the enacted career script) that are creating signal noise for the individual. Finally, I can also conclude that signal issues continue to persist post-recruitment and remain as individuals advance throughout their academic careers.

As previously discussed, this study is limited by the lack of teaching-related data and the limited service-related data that is publicly available. A future study could design a survey that could capture the teaching activities an individual is involved in and one that could fill in missing data related to service activities. This study could then assess how teaching and specific service activities (e.g., institutional service) influence an institution's rank-changing decisions.

Chapter 4. Teaching as Central to Career Scripts: How we Prepare our PhD and Early Career Academics for this Career Script.

Introduction

While the literature presents a somewhat simplistic view of what performance (i.e., research, teaching, and service) is used to assess an academic career (Lindgreen & Di Benedetto, 2022; Baruch & Hall, 2004), Chapter 2 has shown that institutions' take a more nuanced approach to academic performance as expressed via their written career scripts. In that study I found that faculty who seek advancement in rank must show academic performance in the areas of publication productivity, teaching involvement and measures, teacher training, student support, achievements and recognition, and service to the institution, society, and discipline. While individuals are signalled career script role models once a career-advancement decision has been made, Chapter 3 shows that when individual interpretation meets institutional needs, academic career scripts are created that are unique at the rank, region, and institutional level with elevated levels of signal noise. From the literature, we know how institutional needs are shaped by internal and external factors. However, less is known about how individuals are exposed to the career scripts that apply to them.

While the research on career scripts has explored topics such as their development (Whitchurch et al., 2021), their impact on careers (Cappellan & Janssens, 2010), and how they influence career decisions (Garbe & Duberley, 2021), they all operate with the initial assumption that the individual has had some exposure to the career script that applies to them. "An actor usually has knowledge about one or more career scripts that are relevant to their specific institutional environment" (Laudel et al., 2019: 938). In other words, individuals who have been exposed to the career script that is relevant to them can make career-related decisions that align with the expectations of the organisation. This assumption likely comes from the career script description that they are made up of

individual and collective schema as well as collective scripts (Laudel et al., 2019; Barley, 1989). However, where the individual is not fully exposed to all elements of a particular career, their schema and awareness of collective scripts are likely to be incomplete. Such a scenario may lead individuals to situations where they are unable to make career advancement-related decisions that align with the career script role models and the organisation's expectations. This creates two potential PhD graduates who will face unique career challenges. The first cohort is individuals who, due to a lack of exposure to teacher training, may result in them being unaware of the complete academic career expectations they will face throughout their career. The second cohort is individuals who may have knowledge of the complete academic career script but due to the lack of teacher training exposure, lack the skills and competencies to meet the institutional expectations for academic career advancement.

Within an academic context, Lindgreen and Di Benedetto (2022) explain how academics must balance and prioritize research, teaching, and service when seeking career advancement. However, the findings from Chapters 2 and 3 show that signalled scripts used by individuals to guide their decision-making are more complex as they contain significant levels of ambiguity and inconsistency. This shows that script awareness needs to move beyond simplistic categories of research, teaching, and service so individuals can meet the evolving expectations of their institution. Complete career script exposure among PhD graduates and ECAs is particularly important as PhD students spend 3-6 years as part of a PhD programme being primarily exposed to research training which is only one element of the academic career script. However, both the findings from Chapters 2 and 3, as well as the literature (Lindgreen & Di Benedetto, 2022; Wiley et al., 2016) highlight how the academic career consists of performance in research, teaching, and service. For example, Chapter 2's data showed that for research and teaching-active faculty positions, teaching often accounts for 40% of their academic performance.

However, when Allgood and colleagues (2018) surveyed PhD graduates, they reported a lack of experience in front of students while other graduates relied on personal effort and self-training as a form of pedagogical training (Dunn et al., 2016). Additionally, Nerad (2004) found that students report receiving insufficient training to teach. This is particularly concerning as these studies indicate a limited awareness and exposure of up to 40% of the academic career script. Such exposure issues seem to continue as the individual advances in their career as they express uncertainty surrounding academic promotion criteria. Academic department chairs and leaders also expressed concerns about new faculty's ability to undertake the duties associated with their new roles (Ritter, 2019; Allgood, Hoyt, & McGoldrick, 2018). Institutional leaders claim that the cause of the problem lies in a lack of training provided to graduate students during doctoral studies (Austin, 2002).

While many PhD students may begin their programme to become research- and teaching-active faculty members, this may not be the career path all PhD graduates will follow. Within Europe, we are seeing calls for PhD students to receive additional support so that they are better prepared to pursue some of the various career pathways available to them within higher education and broader industry (Hnatkova, Degtyarova, Kersschot, & Boman, 2022). This may be influenced by some perceiving “the role of the doctorate nowadays is multidimensional and is seen not as much as a licence to teach but as a licence to conduct research” (Hnatkova et al., 2022: 407). However, many graduates of a PhD still end up in a higher education-based role that has a teaching component. Reithmeier and colleagues (2019) explored the academic career paths for approx. 10,000 PhD graduates from the University of Toronto (Canada’s largest higher education institution). In their study, they found that 51% of the graduates ended up in post-secondary employment. Out of this 51%, approx. 31% of the positions had a potential teaching component as part of the roles, while the remaining 20% of graduates ended up

in research-focused roles. Even among the Life Sciences which have been known to provide PhD graduates with both research-focused and industry-based employment, we are seeing a high portion of graduates employed in academic-based roles. Lu and colleagues (2023) investigated the career pathways of 2,284 Life Science PhD graduates and found that 55% of them were employed at a higher education institution, 15% were employed in industry research positions, and 15% were employed in science but non-research roles. The remaining students were employed in non-related roles or were unknown. However, out of the 55% who were employed as an academic, over a quarter of them had teaching responsibilities.

These studies show that while we might talk about academic roles in a generalised way, the career paths individuals take post PhD vary. Many variables can shape the employment decisions of PhD students' post-graduation, such as their intrinsic motivations for pursuing their PhD and social relationships (Mueller and Schnurbus, 2023), teaching preferences and advisor sponsorship (Pineiro, Melkers, & Newton, 2017) or completion time (Abraham, Dengler, & Ziesemer, 2022) to name a few. Many in the literature hold strong views that institutional prestige is a key factor in where graduates end up (Wang, 2022; Wapman, Zhang, Clauset, & Larremore, 2022; Nevin, 2019). As a result, PhD graduates may seek to gain employment at prestigious research-dominant institutions to spend more time on research and less on teaching, but this will not be the case for all. Bedeian and colleagues (2010) explored the placement of 171 management graduates from US-based colleges and universities and found that on average, students tend to remain within the same institutional prestige post-graduation, while many move to lower-prestige institutions. They found that only a small number of individuals move to more prestigious institutions. These studies show that while there are a variety of career pathways available to PhD graduates, many of them will end up in a higher education

position with some form of teaching responsibilities, even when they are not employed as research- and teaching-active faculty.

The need to address this research question is driven by the research-dominant approach taken by many PhD programmes that may be providing graduates with incomplete exposure to the teaching dimension within academic career scripts. Additionally, while the research and service aspects of a career seem to be consistently available via institutional websites and public sources, teaching performance is opaque. Yet it is a central part of the career script and something that society, funders, and promotion policies care about a lot.

Students may be exposed to teaching as a side activity as PhD programmes are designed to foster research skills. As a result, they may be signalling incomplete schema and collective scripts to young academics whereby research becomes the primary focus of individuals and teaching becomes a secondary focus or an afterthought. Such situations may create challenges for graduates as they enter the labour market or as individuals seek advancement in their careers and are unable to meet the teaching expectations of the institution's written career script.

This limited exposure and uncertainty surrounding the teaching component of the academic career script leads us to question,

To what extent are early career academics exposed to the teaching component of the academic career script?

To address this question, this study conducts a systematic literature review to explore the exposure of PhD students and ECAs to pedagogical training. A crucial step in making individuals aware of a necessary component of their career is exposure to the activities that make up the script. This can be in the form of involvement in or training in that activity at the initial stages of a career. From this approach, I can identify how the level of training has impacted the development of the individual's career.

The results of the systematic literature review will contribute to our understanding of teaching capabilities among PhD students and ECAs. This will be achieved by identifying the extent of this challenge across academic disciplines and the identification of solutions proposed to this problem by institutions. It will also identify avenues for future research in this area based on what remains unknown or unexplored. The results will also have contributions to the career script and PhD employment literature.

The career script literature, specifically the work of Laudel and colleagues (2019) and Van Helden and colleagues (2023), seeks to understand how career scripts influence career-related decisions and behaviours for individuals. However, in their analysis, they assume that career script awareness already exists. This assumption limits our ability to understand how individuals interpret scripts they are unfamiliar with or how these individuals align with unfamiliar performance expectations. This study will contribute to the career script literature by highlighting the importance of career script exposure and not assuming it has already happened.

The acknowledgement of career script exposure also contributes to the literature on PhD graduates and ECAs. The employability of PhD graduates and the types of academic jobs that they end up in post-PhD are of great interest to career researchers (Spronken-Smith, Brown, & Cameron, 2024; Beasy, Crawford, Young, & Kelder, 2023; Mueller & Schnurbus, 2023; O'Connor, Denejkina, & Arvanitakis, 2023; Palumb & Cavallone, 2023; Rasmussen & Andreasen, 2023). For example, while students can begin doctoral education with a variety of career aspirations, many hold the view that the PhD is the beginning phase of an academic career (Cidlinska & Zilincikova, 2022; Santos, 2016). However, a missing element in understanding the employment of PhD graduates is first understanding what they know about the career paths available to them. An understanding of what influences employability requires an understanding of student exposure to the options available to them post-graduation. By understanding the role of

career script exposure, this study will provide researchers with greater insights when assessing what might influence PhD graduate employment. This importance is driven by the current state of the academic labour market. With governments continuously reviewing educational funding (Dyrstad, Sohlman, & Teigen, 2023; Fukui, 2021), obtaining permanent academic contracts is becoming more challenging (Pineda & Salazar Morales, 2023; Walters, Zarifa, & Etmanski, 2021).

From a thesis perspective, the results of this study have implications for the direction of future careers literature that focuses on PhD students and junior academics. Much of the research to date takes a narrow focus on identifying what influences initial employability and integration into new academic environments. However, what is often overlooked is how initial training, awareness, and exposure also influence the longer-term direction of an academic career. For example, while career script exposure may have limited impacts on the initial employability of PhD graduates, the true impact may not be apartment until they seek career advancement.

Research Design

Data Collection

The review followed the logic of a systematic literature review. The process applied followed Denyer and Transfield's (2009) five-step literature review process. Steps 1-3 are laid out in Figure 10.

Step 1: Literature Review and Procedures

Denyer and Transfield's (2009) first step involves speaking with a broad range of stakeholders to determine the relevant questions and procedures that should be applied to the literature review. To achieve this, conversations occurred with senior faculty members within my institution surrounding the research question. In these conversations, the goal was to gain further insights from others involved in PhD training and faculty

advancement. Following these discussions, I developed a set of keywords that would potentially return the totality of relevant literature.

Step 2: Locating Studies

When choosing the sample frame, I considered: 1. Fornaciari and colleagues' (2017) list of 17 journals, 2. The Australian Business Deans Council (ABDC) 2019 journal list, and 3. The Chartered Association of Business School (CABS) 2018 journal list. Fornaciari and colleagues (2017) present a sample of journals based on their *hg* index[2] and discipline. I decided that this list was too narrow for this study. From the review of the ABDC list, I was able to tentatively identify 49 possible journals that covered business and management education. The identification of each journal was difficult because this list does not have a "business and management education" subheading which makes the selection of journals prone to the exclusion of outlets. I decided to use the CABS 2018 list as they have 49 journals listed under the subheading of "Management Development and Education". This category of journals includes educational research within several business-related disciplines such as Accounting, Marketing, and Management, amongst others, which reduced the risk of excluding relevant journals. The CABS's journal list is a commonly used quality measurement tool among early and mid-career academics (Walker et al., 2019). As such, it was determined that this would hold the highest potential of relevant literature focusing on the management and advancement of an academic career.

Using the above journal selection, I ran keyword searches using Web of Science and filtered by Articles and Reviews. To see how the conversation on doctoral teacher training has evolved since Forray's (1996) paper titled "Doctoral education and the teaching mission" with management educators at various career stages, I filtered by the

[2] "The *hg*-index of a researcher is computed as the geometric mean of his h- and g-indices. That is: $hg = \sqrt{h} \times g$" (Alonso et al., 2010: 394)

date range 1995-2019. As seen in Figure 10, the initial search returned 99 publications for the research question.

Step 3: Study Selection and Evaluation

Following the preliminary reading of the returned publications, I conducted a robustness check to determine if all relevant literature was captured. Additional keywords were added to my Web of Science searches based on these readings. The additional keywords used can be seen underlined in Figure 10's "W.O.S Search (robustness)". The new searches increased the number of returned publications from 99 to 4,408. Following the robustness check, it was determined that I had captured all the relevant literature.

From the review of all publications, it became apparent that the literature on graduate teaching assistants (GTAs) was predominately focused on the STEM disciplines. As GTA experience is a common mechanism by which many doctoral students gain teaching experience, I decided not to filter the review by discipline. In doing so, the study presents findings that represent several higher education disciplines rather than applying to one discipline or field. The application of inclusion and exclusion criteria narrowed the literature sample to 111 potential publications (out of 4,408).

After excluding 16 articles due to limited institutional access, I read the introduction, main findings, discussion, and conclusion for each of the remaining 95 articles. By doing so, I aimed to identify studies that explored the experiences, challenges, identity, impact, and training, or lack of, surrounding teaching for doctoral students and junior academics. The final sample contained 38 relevant publications and information on the authors, data/method, focus, key findings, and theme was documented and analysed.

Figure 10. Heuristic Technique Applied to Literature Sampling

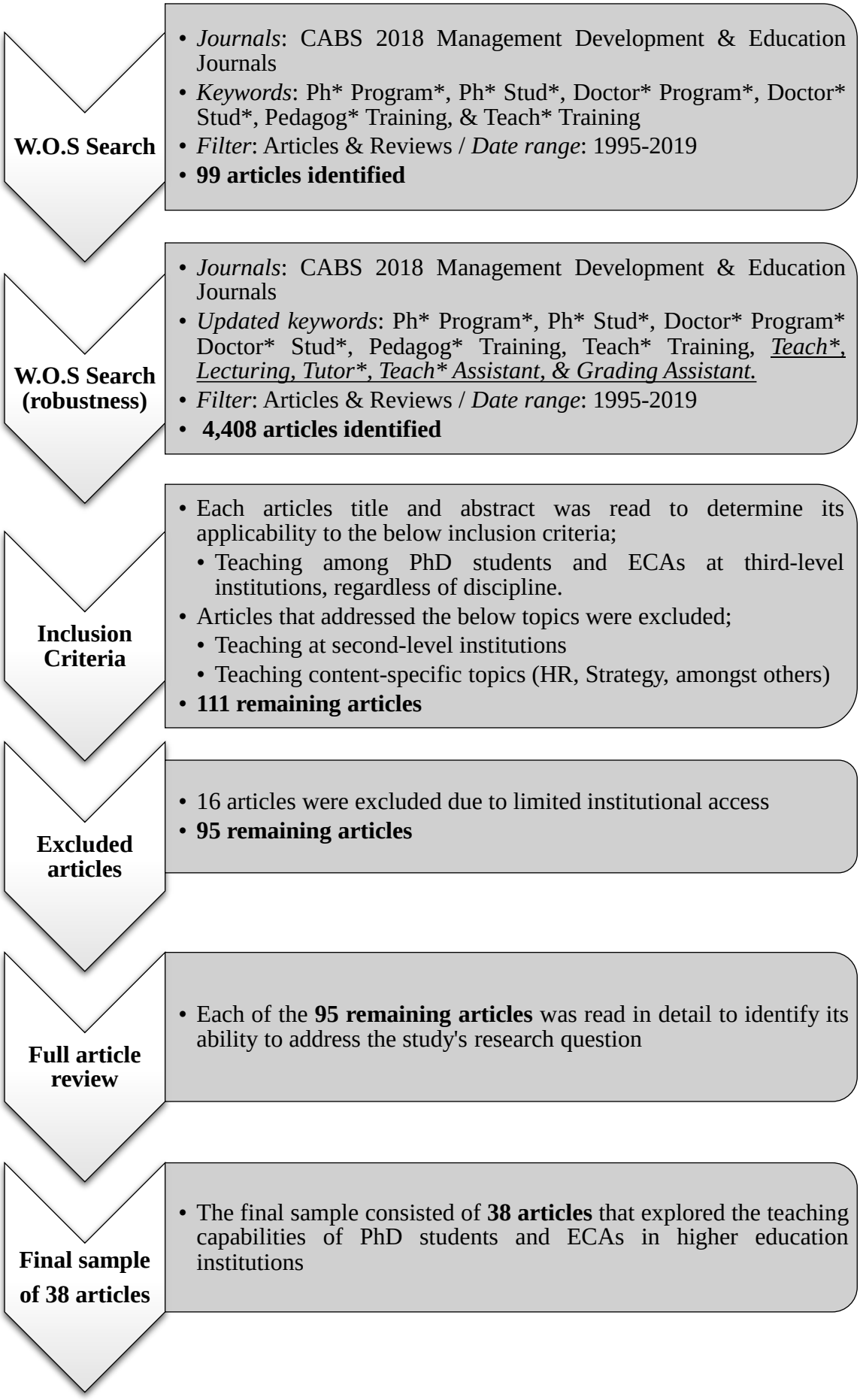


Table 20 presents the breakdown of relevant articles identified across the CABS 2018 Management Development and Education Journals. From this table, we can see that the articles identified span across each of the CABS rating categories. This approach highlights that the CABS ranking of journals and research was not used to influence the articles that were identified as relevant to this study.

Table 20. Journal List for the 38 Identified Articles

CABS 2018 Journals	CABS Rating	Relevant Articles
Teaching in Higher Education	2	**11**
Studies in Higher Education	3	**9**
Higher Education	2	**5**
Issues in Accounting Education	2	**4**
Journal of Further and Higher Education	1	**3**
Innovations in Education and Teaching International	2	**2**
Journal of Higher Education	2	**2**
Academy of Management Learning & Education	4	**1**
Journal of Management Education	2	**1**
Total Relevant Articles Identified		***38***

Limitations

While this study tried to be as comprehensive as possible when assessing the teaching capabilities of PhD students and ECAs, a limitation is the focus on Business and Management journals only. While this is a prominent research field within the discipline of Business with 49 highly rated outlets representing multi-disciplinary studies, it is a single discipline perspective. Not exploring journals associated with other disciplines means there may be several studies that have been conducted that explore this issue in detail but have not been identified. For example, this study does not look at journals

associated with the Adult Education discipline that potentially have articles exploring this topic. Conducting a cross-disciplinary analysis of PhD students and ECA teaching capabilities was beyond the time and available resources of the author.

Findings

Step 4: Analysis and Synthesis

Table 21 presents the list of 38 identified articles following the systematic literature review's heuristic sampling technique. The table notes the author(s), data/method, focus of study, and key findings of each study as well as grouped findings and the overall theme it belongs to. The literature identified shows that the exploration of pedagogical training among PhD students and ECAs has been growing in interest across a variety of disciplines in recent years. From the timeframe criteria of 1995-2019, 26 of the 38 articles were published in the mid to late 2010s. The focus of the literature has been predominately on the experiences of junior academics when taking on teaching responsibilities and whether they received some form of pedagogical training. While the literature identifies concerns about the teaching capabilities of junior academics, it also shows that the challenges these individuals face are not discipline-specific. This does raise the question that if the problem is multidisciplinary, why have institutions not proactively solved this problem?

In addition to the exploration of junior academics teaching experiences, studies have also explored what type of teacher training is best to address the challenges of this cohort. Several studies go further by reporting on the successful implementation of a dedicated teacher training module for junior academics offered at their institution.

Table 21. Systematic Literature Reviews' Identified Articles

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
Austin, 2002	79 doctoral students/ interviews (US)	Is the graduate school preparation process adequate and appropriate given the academic workplace these scholars will enter?	There is a lack of systematic professional development opportunities, minimal feedback and mentoring from faculty, and few opportunities for guided reflection. Graduate students received no guidance on advising, committee work, curriculum development, managing issues etc.	PhD students & GTA's did not receive support or guidance in teacher training.	**Experience of doctoral students and GTAs**
Lee and Lee, 2017	110 graduate students/ survey (South Korea)	Do South Korean graduates feel prepared for their future careers?	Graduates do not feel adequately prepared for their academic or professional careers.		
Barney, 2019	Autoethnography (US)	A call to action to train doctoral students to teach.	Doctoral students are not taught to teach and there may be several factors why. I.e., institutions care more about research training, and faculty lack the motivation to address this issue.		
Muzaka, 2009	10 GTA's and 8 faculty (social science)/ survey (UK)	What are the benefits and difficulties in using GTA's to teach small group seminars?	GTAs lack subject knowledge and teaching skills. The lack of teaching skills is shared by students, GTAs and faculty due to teaching quality and consistency.		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
Mitten and Ross, 2018	10 undergraduate teachers (natural & social sciences)/ interview (US)	How faculty meet the challenges of teaching at research-intensive institutions	Student evaluations did not capture true teaching quality. Limited institutional resources impacted teaching quality, and institutions did not value the time teaching preparation takes. Teacher training was self-initiated and managed.	GTAs learn to teach through trial and error.	
Dunn et al., 2016	75 recent graduates/ survey (US)	First, understand the current setting and sources of training received by new faculty. Second, Explore doctoral students' perceptions of pedagogy skills needed to succeed. Third, identifying perceived gaps and deficiencies in pedagogy training. Finally, is pedagogy training associated with teaching outcomes?	The findings show that the majority of faculty members taught themselves pedagogy skills by conducting classes and universities that provide training education, don’t go far enough.		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
Cho et al., 2011	228 GTAs/ survey (US)	Exploring the conceptual nature of GTA teaching concerns.	GTAs are concerned about class control, external evaluation, task, impact, and role/time/communication.	GTAs are concerned about class control, external evaluation, task, impact, and role/time/communication.	
Jordan and Howe, 2018	153 doctoral students/survey (UK)	GTA perceptions of the benefits and problems with teaching.	GTAs would benefit from being exposed to formal teacher training during their doctoral studies. However, many programmes do not offer it and are sometimes seen in a negative light as it takes time away from research. GTA's believe the benefits of teaching outweigh the problems for their future careers and transferable skills.	GTAs believe the benefits of teaching outweigh the problems.	
Alabi and Abdulai, 2016	50 Deans and HODs, policy documents, ECAs/ interviews & survey (Ghana)	An exploration of ECA's teaching expectations and experience.	Expectations of new roles are not adequately communicated to ECAs. They also do not receive adequate teacher training or are provided with the appropriate tools, incentives, and resources to fulfil their role.	ECAs develop teaching capabilities through self-initiated	**Experiences of ECAs**

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
Oleson and Hora, 2014	53 STEM faculty/semi-structured interview & observation (US)	What primary factors influence a faculty member's teaching?	In addition to imitating their own teachers, a faculty's teaching knowledge is influenced by previous experience in the classroom and as learners.	training (trial and error).	
Subbaye and Dhunpath, 2016	65 university-wide ECAs/ survey (South Africa)	How ECAs are inducted into new roles with teaching responsibilities and the tools, supports, and incentives made available to them.	While ECAs are introduced to teaching-related institutional policies, they do not receive systematic or continuous teacher training. They receive no formal mentoring for teaching. ECAs are relying on their own classroom experiences as students.	ECAs do not receive or are expected to participate in continuous teaching development workshops/ seminars.	
Behari-Leak, 2017	6 new academics/photovoice & interviews (South Africa)	How can new academics use their agency to mediate the challenges of teaching?	New lecturers are ill-prepared for their teaching duties. Even those who participated in professional development programmes had to mediate constraints themselves.		
Osman and Hornsby, 2016	49 faculty (humanities, sciences, health sciences and engineering)/ questionnaire &	How do ECAs experience teaching and support at research-intensive institutions?	ECAs get little to no teaching support and rely on colleague support at the departmental level but this support is ad-hoc and spontaneous.		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
	interview (17) (South Africa)				
Nicholls, 2005	20 new faculty (multi-discipline)/ interview (UK)	How do lecturers construct learning, teaching, and research through personal construct theory?	New faculty perceive themselves as novice teachers even after participation in teaching and learning courses.	New faculty perceive themselves as novice teachers even after participation in teaching and learning courses.	
Pataraia et al., 2015	11 academics/ interviews & social network analysis (UK)	The impact of personal networks on teaching-related professional development.	Personal networks contribute to an academic's overall development of teaching skills. They rely on the expertise and experiences of their peers as they develop teaching skills.	Personal networks contribute to an academics overall development of teaching skills	
Esdar et al., 2016	9 universities/ questionnaire (Germany)	An examination of junior academics' job-related well-being.	High education institutions should support their staff's basic needs satisfaction. For example, junior academics should be supported with teacher training, when new approaches are	Junior academics should be supported with teacher training,	**Who is responsible for teacher training**

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
			introduced, especially during their PhD as many lack teaching experiences and competencies.	especially during their PhD.	
Kane, 2004	17 university-wide teachers/ interviews (New Zealand)	An examination of tertiary teaching.	The university has a crucial role in developing teaching skills.	The university has a crucial role in developing teaching skills.	
Marx et al., 2016	50 doctoral programme representatives (Director/ Dean) & 4 case studies/ interviews (North America)	Explores why institutions do not provide teacher training during doctoral studies.	While institutions express the value of teaching, their commitment to teacher training is insignificant to research training and approaches vary greatly.	While institutions express the value of teaching, their commitment to teacher training is insignificant to research training and approaches vary greatly.	
Chadha, 2013	1 case study, GTAs, & student evaluations/ focus groups (UK)	A curriculum design to prepare GTAs to teach.	GTA training needs a greater experiential learning component while also offering greater choice and flexibility. It should also align with	GTA training needs a greater experiential	**How teacher training should be conducted**

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
			external higher education teaching requirements/best practices.	learning component	
Dotger, 2011	4 GTA's (Earth Science), research memos, lesson plans and student work samples/ interviews & observation (US)	How lesson study can help GTAs develop their teaching skills and pedagogical content knowledge.	GTAs found it challenging to balance learning to teach well and becoming quality researchers. A lesson study approach got GTAs to move away from logistical issues of teaching and to focus on the learner in their seminars.	Teacher training improves the teaching skills of GTA's & ECA's but needs to be ongoing	
Lampley et al., 2018	1 case study, reflexive documents, 4 biology GTAs, & video & audio of participants on a PD programme.	An investigation of the pedagogical content knowledge developed by participants of the lesson study.	The lesson study was beneficial to GTAs. It helped participants revise their teaching, and changes were seen in most of the participants' orientations to science teaching and knowledge of institutional strategies. Lesson study's should be ongoing and combined with other professional development.		
Postareff et al., 2008	80 university-wide teachers/ inventory (Finland)	How university teachers' pedagogical training affects teaching and self-efficacy beliefs	A decline in teaching self-efficacy can be prevented by warning individuals. Teacher training should be ongoing for more positive effects. Training improves the self-efficacy of		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
			those with no experience more than those with experience. Training should focus on changing conceptions of teaching rather than techniques.		
McLean and Price, 2019	13 social science tutors/ longitudinal data analysis of coursework (UK)	Discursive practices that achieve academic identity positioning	Past experiences as a student influenced teaching capabilities. Longer-term teacher training development programmes can lead to greater self-efficacy among junior academics.		
Goodlad, 1997	1 case study and 282 GTAs/ questionnaire (UK)	The training needs of GTAs	GTAs favour interactive and experiential teaching workshops. A GTAs awareness of teaching expectations can be overcome through interdepartmental activities.	Practical teaching methods linked to real-world scenarios have the greatest impact on developing teaching competencies.	
Renta-Davids et al., 2016	204 university-wide teachers/ questionnaire (Spain)	An exploration of the impact of teacher training on participants' pedagogical competencies.	Teacher training was more successful when participants were allowed to practice with real-world problems. Activities focusing on designing assessment tools, assessing student learning, and designing learning activities based on competencies provided hands-on opportunities.		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
Guneral et al., 2016	1 case study & 15 graduate students/ qualitative content analysis	How does participating in teaching professional development affect teaching motivation and identity?	Those who had the least conception or motivation for teaching had the largest increase of the sample following the completion of a teaching PD programme.	Professional development teacher training improves a GTA's & ECA's student evaluations, motivation, and teaching identity and efficacy.	
Holder-Webb and Trompeter, 2016	Review of 3 calls for papers on doctoral education	What skills (other than research) are required to be a successful PhD student in Accounting?	Papers focused on how we can better train PhD students to teach and to become better reviewers.		
Korhonen and Torma, 2016	11 university-wide teachers/ interviews (Finland)	An exploration of the teacher identities and developmental phases of university teachers	Teacher identities and growth are holistic and career-long processes. Disciplinary expertise does not translate to quality teaching. Constant reflection and reassessment are required for professional growth.		
O'Neill and McNamara, 2016	6 module coordinators, 3 education development staff & 72 GTA's (STEM and	The impact of UCDs content-specific GTA modules on teaching.	Intertwining subject-specific and generic approaches to academic development has been beneficial to staff by developing a community of practice for academics within and among schools where critique of teaching and learning practices can take place.		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
	health science)/ interviews & survey (Ireland)				
Shannon et al., 1998	129 GTA's (multi-discipline)/ questionnaire & student & self-evaluations (US)	The impact of training and experience on teaching effectiveness	GTAs with teacher training or prior college teaching experience are rated as more effective. TA experience did not translate into better teacher ratings. Too much TA training is spent on policies and procedures and does not provide opportunities for individuals to practice their pedagogical skills.		
Callahan et al., 2016	1 case study & 12 doctoral students/phone interview (US)	They present a two-semester doctoral student-teacher training module.	This program is aimed at developing and refining students' pedagogical techniques, practising their teaching skills, and gaining insights into their approaching academic careers.		
Burton et al., 2005	54 PhD students/survey (US)	Impacts on teaching efficacy	Teaching efficacy impacts the level of success a teacher feels they can make and that doubts can be overcome by initial training.		
Fong et al., 2019	2 case studies & 44 GTAs/ survey (US)	How best to prepare engineering TAs for their roles and duties.	Semester-long pedagogy courses lead to higher engagement with instructional development. Course participants also reported greater		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
			reflection and the belief that teaching influences student learning. Teaching mentors are vital to facilitate a student's reflection.		
Reddy et al., 2016	Facilitators of an academic development programme/ autoethnography (South Africa)	The impact of a teacher training programme for ECAs	Mentoring programmes or peer support processes are vital to support ECAs in their new roles.	ECA's & GTA's can benefit from development and mentoring programmes as well as peer support processes to assist in their teacher training and institutional policy learning.	
Park, 2004	US literature on GTAs/literature review (UK)	An exploration of what UK institutions can learn from the US GTA model.	Carefully designed systems and procedures are required to ensure that GTAs can effectively perform their teaching role. The design of sustainable GTA models must recognise and take into account the recurrent tension for the individual graduate student, between time spent teaching and time spent on research.		
Gilmore et al., 2014	65 GTAs/ interviews (US)	Changes to STEM GTAs teaching orientations (knowledge and beliefs about the	Teaching orientation changes were influenced by mentor involvement in teaching, training from a department or university, prior teaching experience, and prior research experience.		

Author (s)	Data/ Method	Focus of Study	Key Findings	Grouped Findings	Themes
		purpose and goals of teaching)			
Schnader et al., 2016	14 doctoral programs & 1 case study (US)	How to further develop research students to better prepare them for the role of faculty.	The paper presents a mentoring model which can be implemented at the doctorate level to train future scholars in research/teaching.		
Winberg et al., 2019	Educational development in STEM literature / systematic literature review	How do university teachers acquire pedagogical competencies?	Teacher training in STEM should incorporate a greater focus on the logic of knowledge than just generic pedagogy.	Teacher training the STEM should incorporate a greater focus on the logic of knowledge than just generic pedagogy.	

From the synthesis of the literature, I was able to identify four broad themes. The first theme was the experiences of doctoral students and GTAs. Several articles explore how doctoral students and graduate teaching assistants have managed their teaching duties while completing their doctoral studies. The second theme explored the experiences of ECAs and how they managed the transition from student to faculty from a teaching perspective. The third theme was a set of articles that tried to distinguish who is responsible for providing doctoral students with teacher training. The final theme identified was how teacher training should be conducted. Several articles either present best practices in teacher training or report on their institution's approach to providing this training to their doctoral students.

Experiences of Doctoral Students and GTAs

The literature presents a consensus that students enrolled in doctoral education are not trained or supported to conduct teaching, even when they are recipients of teaching studentships (Barney, 2019; Austin, 2002). For example, Korean graduate students report feeling unprepared to undertake teaching activities (Lee & Lee, 2017). While many of these studies rely on doctoral students' self-reflection, doctoral students' limited teaching experience has also been reported by undergraduate students indicating difficulties in learning due to GTAs' lack of teaching skills (Muzaka, 2009). These findings are not surprising as students acting as GTAs use trial and error as informal experiential learning in developing teaching abilities (Mitten & Ross, 2018; Dunn et al, 2016). Challenges for doctoral students are class control and time balance between research and teaching (Cho et al., 2011). However, doctoral students hold the belief that the benefits associated with teaching outweigh the challenges (Jordan & Howe, 2018).

Experiences of ECAs

Comparisons can be drawn between the experiences of doctoral students and ECAs, indicating that the challenges persist from graduation through to employment. The

lack of formal teacher training in many doctoral students' education has led ECAs to describe themselves as novice teachers yet see themselves as experts in their research field (Nicholls, 2005). Like doctoral students, ECAs continue to develop their teaching capabilities through trial and error (Alabi & Abdulai, 2016; Oleson & Hora, 2014) and in some institutions are under no obligation to participate in teacher training workshops or seminars (Osman & Hornsby, 2016; Subbaye & Dhunpath, 2016). A lack of formal training affects not only students' learning outcomes but also creates difficulties for new academics in tackling structural and cultural obstacles, such as social tensions (i.e. race, class, power, and privilege) (Behari-Leak, 2017). Behari-Leak (2017) found that the internationalization of higher education has led to diversified student and faculty demographics and new faculty are ill-prepared to operate in or handle the complexities of teaching where there is a clash of cultures. ECAs do, however, benefit from their networks by sharing experiences and observing others (directly or through social media) which contributes to the development of their teaching capabilities (Pataraia, Margaryan, Falconer, & Littlejohn, 2015).

Who is Responsible for Teacher Training?

The review of the literature indicates support from faculty for junior academics to receive teacher training, especially during the PhD (Esdar et al., 2016). Academics also believe the institution has a crucial role to play in developing teaching capabilities for ECAs (Kane, 2004). However, Marx and colleagues (2016) found that, while institutions claim to believe in the value of teacher training, they have no standard or consistent method for approaching this training. This is explained by one of their study's respondents commenting that faculty see the requirement of providing additional mentorship (i.e., teaching support or training) as a burden. While Marx and colleagues (2016) note

institutions' position on teacher training, they also note that institutions are aware they are placing their graduates at a disadvantage in the academic labour market.

How Teacher Training should be Conducted

The literature shows that professional development workshops/seminars in teacher training led to increased student satisfaction (Shannon et al., 1998). GTAs also report increases in their teaching efficacy (Burton et al., 2005; Fong et al., 2019), teaching identity (Korhonen & Torma, 2016), and motivation to teach (Gunersel et al., 2016) following the completion of teacher training. To achieve successful teacher training, some mechanisms could be incorporated to achieve the best possible outcome. Teacher training should allow participants to partake in real-world scenarios, such as designing learning assessments and activities for students that mirror challenges faced by faculty members (Renta-Davids et al., 2016; Goodlad, 1997). Training programmes should include experiential learning throughout (Chadha, 2013) and integrate generic pedagogy with content-specific teaching skills (Winberg et al., 2019). O'Neill and McNamara (2016: 575) found that successful teacher training programmes are "practice-focused, yet 'theoretically informed' with teaching and learning principles". Such programmes are developed and delivered by educational developers working alongside content-specific academics (O'Neill & McNamara, 2016). Several researchers found that participants benefit from peer support and mentoring to assist with not only teacher training but also institutional policy learning (Reddy et al., 2016; Gilmore et al., 2014; Park, 2004). Schnader and colleagues (2016: 176) recommend a teaching mentor be someone other than the doctoral supervisor, who does not necessarily need to hold a doctorate, "as many strong instructors are adjuncts, lecturers, or professionally qualified faculty". A crucial element of teacher training discussed in the literature is the need for it to be ongoing throughout academic careers (McLean & Price, 2019; Lampley et al., 2018; Dotger, 2011; Postareff et al., 2008).

It is clear from the above literature that PhD graduates and ECAs have been provided with limited or no teacher training. That has potentially resulted in them having limited awareness of the complete academic career script applicable to them. While this is concerning, it is important to explore if the teaching expectations of institutions align with the experiences of this cohort or if there are additional expectations placed upon them that they may struggle to meet.

Step 5: Reporting and Using the Results

From the review of the identified articles, I found that the exploration of student and ECA teaching capabilities has been framed around a professional development lens. This perspective focuses on how individuals develop their teaching capabilities by providing insights into the experiences of the individual before and post PhD graduation. In assessing the professional development of teaching capabilities, many of the studies take an empirical approach to explore this phenomenon via surveys and interviews. Additionally, a small number of studies have taken a case-study approach to explore institutions that have been proactive by rolling out teacher training modules. However, these studies are self-reported cases by the individuals responsible for developing and implementing these programmes. As such, conducting an unbiased case study is likely to be difficult. Additionally, it can be argued that the only suitable individuals who can report on the success of these programmes are the individuals who participate in them. Overall, it can be concluded that this literature has been driven by the exploration of an individual's experience in the classroom, via a professional development framework with limited reports on how some institutions have addressed teacher training (via case studies).

One limitation of the current literature, however, is its lack of exploration of teaching deficiencies on the career trajectories of these junior faculty. While the dominant professional development perspective provides insights from the individual perspective, we have limited knowledge of the impact of their experiences on their academic career.

For example, we do not know how individuals who received no teacher training address their skills deficiency later in their career. We are also not aware of how a lack of teacher training impacts the career advancement of these individuals. Additionally, very few studies explored the phenomenon from the institutional perspective. Without the institutional perspective, we do not know why this skill deficiency exists, who should be responsible for providing teacher training, or how this might be assessed at scale.

The results of the systematic literature review show that the teaching difficulties of junior academics are a multidisciplinary issue that is caused by a lack of teacher training during their PhD studies. We also know that experienced academics and institutions are aware of this problem and the challenges it creates. However, there does not seem to be a large-scale appetite to address this issue. What makes the findings of these studies most concerning is that the deficiencies in teaching capabilities identified continue into the early stages of an individual's career. For example, studies show that ECAs feel ill-prepared to fulfil their teaching requirements. With an increasingly competitive academic labour market and findings from Reithmeier and colleagues (2019) and Bedeian and colleagues (2010) that graduates will end up in a variety of academic roles across a spectrum of prestigiousness, this study confirms the finding of Marx and colleagues (2016) that institutions are placing their graduates at a disadvantage on the academic labour market. While the literature agrees that institutions need to address this problem, some studies try to advise how this training should take place. However, this advice is fragmented and, in some cases, based on self-assessment of institutions' teacher training programmes.

The systematic literature review identified three gaps regarding this topic. Firstly, it does not report on the successful implementation of pedagogical training during the PhD programme on scale. While there are reports of teacher training being rolled out at several institutions, no study identified a coordinated approach across regions,

institutional types, or academic associations such as the Academy of Management to tackle this issue.

Secondly, institutions looking to implement teacher training must rely on fragmented reports of what was successful in rolling out this training and in some studies, self-reported evaluations that may be biased. The literature lacks longitudinal studies that assess how the teacher training programmes shaped the students' teaching as they took their first faculty positions.

Finally, much of this research is concerned with how a lack of teacher training will impact the student's initial faculty position. However, no study assessed how a lack of teacher training impacted the career progression of these individuals. For example, how did they bridge the gap between being a novice teacher to becoming a pedagogical innovator?

Teaching Expectations in Promotion Documents

The importance of exploring how individuals address this skills deficiency later in their career is due to the importance placed on teaching capabilities for academic career advancement. As identified in Chapter 2, teaching is an important promotion criteria category signalled by institutions and is measured using several criteria. The content analysis presented in Table 5 (Chapter 2) identified that promotion documents contained five distinct categories related to teaching. These are Teaching Involvement and Measures, Teacher Training, Service to the Institution, Student Support, and Achievements and Recognition. The identification of these categories was made without any pre-assumptions regarding which activity belonged to which academic productivity (i.e., research, teaching, or service). Rather, the categorization of the codes was created based on the nature of the activity. This allows for the examination of teaching-related criteria contained within the sample of promotion documents, regardless of how that activity was listed on the document. Within each teaching-related category, I found that

faculty seeking advancement in academic rank must present productivity against several teaching criteria ranging from overall performance (teaching quality) to levels of activity (teaching activities) and awards and funding (Achievements and Recognition).

As I examined the criteria based on its presence across the total sample, I found that 82% of the sample sought faculty to show their teaching quality, followed closely by 75% seeking funding (see Table 6, Chapter 2). In addition, 53% of the promotion documents require teaching evaluations while 57% require involvement in teaching activities (i.e., Leadership in educational innovation). However, what the promotion documents do not indicate are the teaching evaluation outcomes the institution is looking for or what the institution defines as innovation in education. This is because the promotion documents do not provide definitions, explanations, or benchmarks that faculty can use as a guide. For example, the sample does not provide a measure of teaching quality that can be used, rather, they use qualitative metrics that are subjective.

When I examined the promotion criteria by rank, I found that teaching quality is the only criterion that naturally increases as an individual advances in academic rank (i.e., more institutions require faculty to show teaching quality as they move up each rank). The remaining criteria either show consistent levels of requirement or declining levels. For example, as seen in Table 7 (Chapter 2), both course design and delivery and funding maintain elevated levels of teaching among the promotion documents at approximately 70% for each. In contrast, teaching status (HEA) and teaching activities show a decline in presence of 15% from Senior Lecturer to Professor and 13% from Senior Lecturer to Professor, respectively.

Discussion

This chapter set out to identify the extent to which early career academics are exposed to the teaching component of the academic career script. This was achieved by conducting a systematic literature review. The literature review confirms the chapter's

initial arguments that students are not provided with appropriate career script exposure in the form of teacher training during the junior stages of their academic career. As a result, junior academics are left to rely on trial and error in the classroom as well as their own experiences as students. While the findings indicate that some students are provided with some exposure to teaching, it was consistent in the literature that teacher training is not a component of PhD programmes nor are their compulsory teacher training opportunities incorporated once the individual secures a faculty position. As PhD programmes work to turn students into competent researchers, the claim by students that they see themselves as "novice teachers" creates a striking image of their limited exposure to the complete expectation of the academic career script.

We have seen from previous chapters that many in the literature have different views about what type of academic performance is most important for career advancement, however, the analysis of the promotion documents confirms that, regardless of rank, teaching is a vital component of the academic career. When an academic seeks career advancement, they are presented with a written career script that requires success in a range of teaching activities. These activities are more than just being present in the classroom, instead, they consist of teaching quality, pedagogical innovation, and course design, amongst others. This expectation not only requires faculty to show quality teaching in the classroom but also looks for educational leadership across the institution along with recognition in the form of awards or funding. This shows a dramatic increase from someone who claims to be a novice teacher relying on trial and error to someone who is an educational leader practising pedagogical innovation.

The challenge for academics is that once they start to receive more complete signals from the written career scripts, they are at a disadvantage. The findings from Chapter 2 show that institutions favour qualitative measures over quantitative ones and do not provide any benchmarks or guides to use. As a result, faculty must interpret the

meaning of “teaching excellence” and “pedagogical innovation” themselves. However, this study’s literature review has shown that junior faculty rely on social networks as a replacement for formal training. Those who rely on the advice of others are being provided information that may not apply to their institution due to the inconsistent nature of career advancement decision-making by institutions (as identified in Chapter 3). As institutions are in the unique position of training their next generation of employees, one must wonder why there exists a mismatch between the training offered to PhD students and the performance expectations of faculty for career advancement.

The findings of this study have enabled me to make several key contributions. Firstly, the literature review shows that while there is a growing interest in the teaching capabilities of junior academics, there remain several areas that require further research. For example, this body of literature requires longitudinal studies on the self-reported teacher training modules implemented at some institutions. In doing so, we can identify the impact they had on the student's teaching and their career. We would also benefit from additional research that explores the impact that this lack of training has had on the career advancement of individuals and how they overcome this challenge to meet an institution's teaching performance expectations.

Secondly, the findings show there currently exists a misalignment between the academic career scripts presented to PhD students and the scripts used by institutions to assess academic performance. As a result, this study contributes to the career script literature, specifically, Laudel and colleagues (2019) and Van Helden and colleagues (2023) by acknowledging the importance of career script exposure and not assuming that individuals are already exposed to the script that applies to them. Such an assumption overlooks a prerequisite of how individuals interact and respond to particular career scripts.

The final contribution is to the literature on PhD graduate employment (Spronken-Smith, Brown, & Cameron, 2024; Mueller & Schnurbus, 2023; O'Connor, Denejkina, & Arvanitakis, 2023). While previous chapters have shown that the academic career script is highly inconsistent, this chapter shows that even with inconsistent career scripts, teaching plays a fundamental role. However, this study's findings have shown that by not exposing PhD students to the complete academic career script, they are setting them up for future career challenges. While PhD programmes may want to see their students flourish as academics, this study shows graduates' limited exposure to the fundamental teaching dimension of academic career scripts, providing them with incomplete knowledge of all available career pathways. This is especially important with declining permanent academic employment opportunities (Pineda & Salazar Morales, 2023).

Implications for the Academic Career

Based on the findings of this study, I can conclude that, while some students receive limited exposure to teaching, they receive no formal training. However, as faculty look to advance in their career, the level of teaching expectations by institutions increases substantially. This has several implications for practice. Firstly, this literature review has shown that faculty who report difficulties in teaching and rely on trial and error have negative impacts on the teaching and learning of students. The negative learning experiences of students can have direct reputational impacts on both a school and a university. It can also impact how institutions perform via national student surveys and influence the accreditation of these schools.

Secondly, the gap in an individual's career script knowledge and skill development draws greater attention to how individuals who begin their careers with minimal teaching competencies manage to achieve the teaching expectations for career advancement. This study shows a need for faculty to progress from novice teachers to become pedagogical leaders. Such a transition is likely to take substantial commitment

and involve a skilled network as well as the involvement in third-party academic organisations such as the Academy of Managements' Management Education and Development division and their Teaching and Learning Centre as well as the Management and Organisational Behaviour Teaching Society.

Finally, the commitment to developing the required teaching skills also leads us to question how this is achieved while also developing an internationally recognised research portfolio published in top-tier journals. With a growing expectation of publishing in top-tier journals and an increase in the time it takes to publish continuously growing since 1988 (Certo, Sirmon, & Brymer, 2010), how can we expect individuals to continue this trend and develop their teaching skills? It raises questions about whether a trade-off needs to be made. For those lacking teacher training, are they presented with a decision to either focus on their research and neglect their teaching in the hope that their research portfolio will carry them through career advancement or do some have to make sacrifices where they may have to reallocate time and effort away from some research projects to address their teaching skill gaps?

Chapter 5. Discussion and Conclusions

The central theme of this thesis is the exploration of academic career advancement. Specific attention has been paid to institutions' signalled performance expectations, their career script role models signalled after they make career advancement decisions, and the exposure of PhD students and ECAs to the teaching component of the academic career script. Academics have the responsibility of building their career capital by utilising resources from their employed institution and their wider discipline. This autonomy can be difficult to navigate and has resulted in a stream of academic career management literature seeking to understand the nuances of the academic career (Mu & hatch, 2021; Aguinis et al., 2020; Mitten & Ross, 2019; Ryazanova and McNamara, 2019). However, the literature presents conflicting arguments regarding what type of academic performance leads to career advancement (Lindgreen & Di Benedetto, 2022; Hollywood et al., 2020, Baruch & Hall, 2004) resulting in calls for clarity (Thanassoulis et al., 2018). This thesis provides some clarity and structure to an otherwise causally ambiguous process. By achieving this, it is hoped that individual academics will make career-related decisions that could lead to more positive outcomes.

Academic Career Management

As previously discussed, academics rely on external networks and associations to build career capital which is then presented to their institution in the hopes of achieving career advancement. This can, however, lead to difficulties for individuals as they try to align their externally acquired career capital with the institution's performance expectations. Intending to assist faculty, many studies provide advice, insights, or experiences on what may influence the career-advancing decisions of institutions. This has led to the growth in academic career management literature. The challenge for individuals, however, is the conflicting advice from these studies and in some cases, the lack of clarity behind their proposed performance recommendations. For example, the

literature encourages conducting “outrageous” research (Lindgreen and Di Benedetto, 2022: 1), building an international reputation (Baruch & Hall, 2004), or boosting overall research productivity (Lissoni et al., 2011) when trying to achieve career advancement. Individuals trying to make career-related decisions are faced with additional unanswered questions. First, what type of research is classified as outrageous? Secondly, how does one define an international reputation? Thirdly, is quantity preferred over quality? Most importantly, does this advice apply to their specific institution and discipline? It is possible that interpreting this literature may have led to additional confusion as Thanassoulis and colleagues (2018) call for clarity surrounding academic promotion criteria.

The results from Chapter 2 show no evidence that performance in a singular aspect of the academic career (i.e., research, teaching, or service) will drive career advancement regardless of whether it is outrageous, internationally recognised, or in large quantities. This contradicts Hollywood and colleagues (2020) claim that research is the most important factor in career-advancing decisions. The performance expectation signals sent by institutions identified in Chapter 2 better align with Wiley and colleagues (2016), who claim that academic performance is focused on research output, teaching quality, and service involvement to the institution, profession, business, and community.

Individuals who have previously based their career decisions on the premise that research is the dominant performance criterion for career advancement decisions are likely to face difficulty when they are unable to respond to the teaching and service-related expectations placed on them. For example, faculty who take this approach and are employed at an institution where a weighting is used to measure performance, potentially signal excellent performance in a category that accounts for only 40% of the institution’s expectations, leaving institutions to question their performance in the remaining 60% of activities that make up an academic role.

This is not the only challenge the academic career management literature presents to individuals. As previously argued, much of the literature takes a quantitative approach to assessing performance and advising improvements to the academic career (Ayoubi et al., 2019; Clark et al., 2016; Alonso-Borrego et al., 2017). In trying to understand the performance outcomes of individual academics, many of these studies take a quantitative approach to assess research productivity, impact, and awareness, amongst others. Additionally, many of these studies try to show how time spent on some activities (e.g., teaching) can impact performance in other areas (Horta, Dautel, & Veloso, 2012; Taylor et al., 2006). As a result, they send two potential signals to individuals. Firstly, academic performance is assessed and expressed through quantitative metrics and secondly, there is a priority system for academic activities where time should be spent on some activities more than others.

However, a clear and consistent finding of this thesis is the dominance of qualitative approaches by institutions when measuring academic performance. For example, institutions signal that they seek excellent publication records and teaching quality as well as international reputations and contributions in a range of service activities. The difficulty with this approach is captured by Helgesson and Sjogren (2019: 572) who claim "that excellence could solely be determined at insiders discretion". The bigger challenge, however, is the clash between the career literature's advice of improving research performance via journal outlets and overall citation count with the institution's expectations of research excellence. For example, if an individual chooses to follow the advice of the literature and equate publication counts with excellence, where do they extract a benchmark from? With the literature pushing a quantitatively measured approach to performance and academia's overwhelming focus on quantitative metrics via university rankings and journal impact factor ratings, it is understandable that individuals would interpret their institution's expectation of performance in quantitative ways.

The results of this thesis show that the clash of perspectives regarding the measurement of performance is driven by how individuals may interpret their impact and how institutions need to measure this impact. Institutions send two sets of performance measurement signals to faculty. The first is ambiguous, qualitatively measured performance criteria via written career scripts. The second is clear and quantitatively measured performance metrics used to communicate the success of departments, schools and the institution to students, governments, research bodies, and donors, amongst others. This combination of individualistic and managerial approaches to performance measurement exists due to institutions' attempts at encouraging individual performance that aligns with disciplinary expectations while also translating this performance into a set of benchmarks and metrics that can be interpreted and compared by stakeholders.

While individuals may see these signals as confusing or misleading, there is a clear conclusion that can be drawn from the results of this thesis: there are several pathways to career progression for academics. Interpretation of written career scripts presents individuals seeking advancement with initial insights into the expectations of institutions. In addition, observing career script role models, individuals can see that written career script signals can be interpreted in a variety of ways. While some individuals may seek from institutions a greater clarity surrounding the meaning behind their performance expectations in the hope of improving the career prospects of many, they may not realise that in doing so, they limit individual creativity and institutions' ability to differentiate between the impact of one individual over another.

This misalignment in expectations and interpretation is likely what is causing Thanassoulis and colleagues (2018) to call for clarity surrounding academic promotion criteria. For example, it is common for ECAs to be expected to publish in “top journals” and achieve top student evaluation scores. When these individuals are presented with a

written career script by the institution, it is understandable to see how they may translate quantity output to the institution's undefined definition of “excellence”.

I do not argue that these quantitatively based studies do not achieve the goal of providing greater insights and understanding of the academic career. It is important to understand the outcome of career decisions. Rather, I argue that they will not aid individuals in achieving career progression as they do not show how quantitative performance metrics are translated into qualitative metrics. This opens an avenue for future research as additional research is needed to better understand the translation of quantitative performance to qualitative performance and how this might be achieved. It also adds to the conversation in the literature about the growth of neoliberalism in higher education institutions (Croucher & Lacy, 2022; Hazelkorn, 2018). Institutions are sending clear signals via their promotion policies that performance is not solely based on overall output, but these signals are likely being shadowed by additional discussions regarding the overall performance of higher education that tends to be based on overall output and key performance metrics. We would benefit from future research looking into the signals institutions send as they seek to climb higher education institution world rankings and the impact these signals have on the career decisions of individuals.

Our Understanding of Career Scripts

Career scripts detail a career position's rules, norms, and expectations (Laudel et al., 2019; Barley, 1989). Many individuals see these career scripts as roadmaps of how to achieve the associated position. Several studies show how career scripts are used by both institutions and individuals to influence career decisions and behaviours (Whitechurch et al., 2021; Cappellen & Janssens, 2010). However, as previously discussed, the challenge for individual faculty is the interpretation of their institution's expectations via these scripts as they try to use them to influence career-related decisions. To address this, the thesis builds on Laudel and colleagues' (2019) claim that career scripts are co-determined

by both the needs of the institution and the individual's interpretation by exploring the performance expectation signals sent by institutions.

Chapter 2 builds on our understanding of the academic career scripts by exploring the institution's needs signalled via its promotion documents that act as a written career script. It also provides conceptual arguments on why institutions communicate their needs in the way that they do (i.e., qualitative and ambiguous). Chapter 3 looks at the signalled career script role models post career advancement decisions to look at the totality of career script signals interpreted by individuals. In doing so, this chapter shows the inconsistent nature of career scripts as institutional needs are interpreted by individuals. In this chapter, it is argued that the act of interpretation is not something that happens once, resulting in a chain of career decisions that lead to a particular outcome. Rather, they are more like a constant stream of re-interpretation, with new information added with each new career advancement decision. These inconsistent role models have consequences for career script applicability, especially when we know the academic career script is used to shape behaviours (Van Helden et al., 2023). This inconsistency means that when individuals make career-related decisions using career scripts as a guide (Horta & Li, 2024; Garbe & Duberley, 2021), they are unlikely to provide the desired outcome. While observing others who have gone through the process previously offers insights into the institution's approach, the career scripts signalled post career advancement are not a career recipe with a guaranteed outcome. This has contributions to the career script literature practical implications.

From a contribution perspective, career script researchers need to acknowledge the inconsistency and fluidity of career scripts if they wish to better understand their development and implications. Understanding the role career scripts play in an individual's career trajectory requires the acknowledgement and where applicable, control for the level of fluctuation in both written and role-modelled scripts signalled by

institutions. For example, the fluctuation of career scripts is not sporadic or gradual, rather it is constant and irregular. This can be seen in Chapter 3 as the level of variance among promotion decisions is above 50% with many being 100% plus. As a result, the findings of this thesis question Laudel and colleagues' (2019: 938) claim that "[t]hrough career decisions, in turn, scripts are maintained or may be altered over time". While they do not state that no change occurs, rather, they imply that the change is gradual.

This finding also opens an avenue for future research that investigates the level of fluctuation across different industries. By doing so, it can be determined if the level of inconsistency identified is unique to an academic context or if it is applicable across a range of industries. Additional research could also speak with individuals who have navigated their institution's signalled career scripts whether successful or not to see how they interpreted and managed the inconsistencies they were faced with.

From an implications perspective, the findings of this thesis reinforce the notion of informing individuals about how academic career scripts develop and how best to use them. Career scripts can offer a generalised view of what constitutes a particular academic rank. However, to do this effectively the individual would need to review several career scripts within their institution and extract high-level meaning from the career-advancing decisions made. By mirroring the performance of those who have previously advanced their career, individuals are hoping that the institution's needs remain unchanged, and that the institution interprets the subjective performance expectations in the same way as they previously did. Overall, career scripts as a standalone tool do not offer any certainty or insights into what specific academic performance will achieve the desired outcome. By making individuals aware of how academic career scrips are developed and their inconsistent nature, it is hoped that they will be better placed to use them as an additional source of information and not assume they represent a rigid blueprint for achieving what others have in the past.

The Inconsistency of Performance Across Academic Ranks

One of the underlying questions of this thesis is how one achieves a senior academic rank (i.e., Senior Lecturer, Associate Professor, and Professor). This is driven by the inconsistent findings in the literature and the different approaches taken by different regions (Jepsen et al., 2014; Lissoni et al., 2011). Likely, this inconsistency is also present when individuals speak anecdotally about their promotion experience. The thesis's finding that academic ranks can be significantly different from each other sheds some light on why these inconsistencies were found in the literature and may be found in an individual's personal experience. Throughout the thesis, there is no indication that a particular academic performance or set of achievements will guarantee an advancement in any academic rank. Career-advancing decisions are unique to the institution and its strategic objectives. This leads to the likely scenario that while individuals may hold the same rank (even in the same institution), they are unlikely to have the same performance and achievements. This also supports Mu and Hatch's (2021: 295) claim that "there is no single [Promotion and Tenure] system that is appropriate for all institutions". This has contributions to the academic career management literature as well as practical implications.

From a conceptual perspective, it is common for academic career studies to explore their phenomenon from an academic rank perspective or at least control for it in the study. Regardless of whether the study seeks to explore gender (Barnard et al., 2021; Cidlinkska & Zilincikova, 2022), outcomes (Elangovan & Hoffman, 2021; Garcia-Carbonell et al., 2021), or traits of the career (Cohen et al., 2020; Baruch & Hall, 2004), rank plays a prominent role on the study. However, as shown in this thesis, segmenting a sample by rank is not an appropriate approach as you are likely to find significant differences in academic performance that make up that rank. As a result, many studies

will have their results influenced by a natural inconsistency within the sample that may not have been initially acknowledged.

From a practical perspective, this calls into question how individuals from other institutions are used to assess the accomplishments of potential applicants (via career references) or the quality of teaching of an institution (via external examination). For example, if an individual has been promoted to a senior academic rank in an institution with a sole focus on research performance, what makes their comments on the quality of teaching at another institution applicable? Additionally, if there are differences in the performance of promoted academics, how can that individual speak about the suitability of another individual regarding an advancement decision? Finally, this inconsistent approach regarding what makes up a particular rank creates challenges for mentor-mentee outcomes if they are in separate institutions. For example, an individual who maintains a relationship with their PhD advisor and keeps them as a mentor is likely to experience conflicting signals in how to progress their career if they are trying to achieve this career at a different institution.

PhD Preparation for the Academic Career Script

While some in the literature describe academic performance as revolving around research, teaching, and service activities (Lindgreen & Di Benedetto, 2022; Wiley et al., 2016), others claim that performance in one or another area is most important. For example, it has been claimed that research productivity (Lissoni et al., 2011) and international reputation (Baruch & Hall, 2004) are the dominant criteria that influence career advancement decisions. Hollywood and colleagues (2020) go further by stating that research not teaching is most important to academic career development. The results of Chapter 2, however, have shown that institutions do not signal one classification being more important for advancement than the other. When analysing the promotion documents of institutions, many of the institutions did not signal an indication that

teaching was treated in any way less than the other activities. Nor did they signal that it had fewer expectations associated with it in comparison to research or service. In contrast, several institutions required individuals to perform in the areas of teaching and research equally with lesser expectations in service. For example, some institutions applied weighting to performance measurement with the most common weight being 40% research, 40% teaching, and 20% service. These findings showed no overwhelming inclination of institutions to favour research over teaching when individuals sought career advancement. While there are no career script signals to indicate teaching is treated differently from research, the experiences of PhD graduates and ECAs do signal this. Some in the literature express concerns about PhD students' and ECAs teaching competencies and the difficulties they face regarding their new teaching responsibilities (Dunn et al., 2016; Nerad, 2004).

This misalignment between a PhD student and ECAs experiences with the expectations of the institution indicates that exposure to the complete academic career script is lacking among this cohort. This may result in this generalised belief that research is most important for career progression. It might even be that those expressing these thoughts don't intend to imply that teaching is less important, but rather research is more difficult and time-consuming resulting in a need to spend a disproportionate amount of time on this activity. Even if this is the case, the lack of teaching exposure among PhD students and ECAs can lead to two distinct challenges.

The first is among those who solely focus on their research activities and neglect teaching as they deem it less important. As individuals use their career script knowledge to make career-related decisions (Horta & Li, 2024; Garbe & Duberley, 2021), they may face career delays as they are unable to present the required performance expectations for career advancement. The second scenario may be among those who have focused on research and have some initial exposure to teaching but have not been provided with the

appropriate time, training, or resources to develop these skills. For these individuals, difficulties will arise when they try to achieve "excellence" in teaching quality or present pedagogical innovation but are unable to do so as they have little exposure or reference to how to achieve these outcomes.

What makes this a unique situation is that it is not only individual ECAs who express concerns about their teaching ability. The literature has reported concerns by institutions recruiting faculty that recent PhD graduates are unprepared for all activities associated with the academic roles they are seeking (Ritter, 2019; Allgood et al., 2018; Austin, 2002). While it may be argued that it is up to the individual student to seek out teacher training, we know that many institutions believe it is their responsibility during the PhD (Esdar et al., 2016; Kane, 2004) and several studies provide advice on how this should be conducted (Fong et al., 2019; McLean & Price, 2019; O'Neill & McNamara, 2016). Institutions that try to implement PhD teacher training may be faced with concerns from faculty who feel it will be a burden (Marx et al., 2016). Regardless, institutions that don't offer this training know they are placing their graduates at a disadvantage in the academic labour market (Marx et al., 2016).

While the literature may argue about what is most influential for academic career advancement and the findings from Chapter 3 shows that there are a variety of pathways to this advancement, it is clear from Chapter 2 that the academic career consists of research, teaching, and service expectations. Knowing this, it is important to ask why we treat the PhD as the gateway to an academic career and if it is still fit for purpose. While the academic career script consists of three performance categories, we require those looking to enter an academic career to do so via a training route focusing on only one performance category (i.e., research). We then question why PhD graduates are not ready for the expectations associated with their new roles. Many may argue that the objective of the PhD is to prepare individuals for a variety of positions and there are calls to expand

the learning to make it more multidimensional (Hnatkova, et al., 2022). However, if this is the case, then it is possible to question why many institutions offer professional doctorate programmes (e.g., a Doctor of Business Administration) with a primary focus on industry. Moving a PhD programme's focus away from academia creates difficulties for those pursuing this path in the hopes of securing an academic position. Several studies have shown that at least half of PhD graduates end up in higher education-based roles, regardless of discipline, with many having a teaching component. Regardless of why an individual began a PhD, its sole focus on research training creates career challenges for the graduate. Those seeking an academic position, are not provided training for two of the three academic performance categories (i.e., teaching and service). Those seeking an industry role, lack appropriate training on transferrable skills. This leads to the conclusion that a PhD program does not adequately prepare a graduate for an academic or industry career and instead prepares them for post-doctoral positions only. For many disciplines, such as Business, a postdoc is a bridging position between the PhD and permanent employment and is not a long-term career pathway. As a result, it can be argued that the PhD, in its current state, may not be fit for purpose as an entry route to an academic or industry career.

Higher education institutions are in a unique situation whereby they are solely responsible for training their next generation of employees. Unlike other industries with a higher education prerequisite, higher education institutions can quickly and directly correct gaps in the training, skills, and knowledge of the next generation of academics if needed. This is unique to higher education as other industries would be required to liaise with the training institutions to bring about the desired changes. While institutions signal the importance of teaching via written career scripts, their lack of action to resolve this challenge needs to be researched further. Further research could try to identify potential reasons for this lack of action. Is it due to the disconnect between those responsible for

the management of PhD programmes and those responsible for the recruitment and promotion of faculty? Is it a result of limited resource allocation that does not enable the institution to provide both research and teacher training during the PhD? Is it because institutions view research training and skill development as being more difficult, and consider that time would be better spent on this rather than teacher training which could be completed via a professional development process once the individual is recruited?

Overall, the results of this thesis highlight the agency individual faculty have when shaping their academic careers. It also acknowledges the unique equifinality feature of the academic career whereby individuals have various pathways available to them when seeking to achieve desired career outcomes. However, the key to utilising these unique features of the career is exposure to them and the variety of options available to individuals.

Limitations

In setting boundaries for this thesis, the Times Higher Education World University Rankings list was chosen as the population of institutions for Chapters 1 and 2. THE was chosen because it represents institutions that are both research- and teaching-focused. However, it is acknowledged that many higher education institutions are not represented on this list. I also acknowledge that there are additional career pathways available to faculty beyond just research- and teaching-focused. Due to this limitation, the findings of this thesis are specific to a single academic career path from a subset of higher education institutions.

While the objective of this thesis is to aid individual faculty by providing greater insights into the academic promotion process, this is achieved by exploring the signals sent by institutions with only assumptions about how promotion signals are interpreted by individuals. As a result, a limitation of this thesis is the assumptions surrounding individual interpretation that lack empirical analysis. For example, the thesis argues how

interpretation takes place and the possible impacts this may have on an individual career. However, it does not explore or test this among a sample of individuals.

The techniques used to analyse the data in this thesis, specifically Chapters 2 & 3, are descriptive in nature as they describe the institutional signals an individual will interpret when they seek career advancement. A limitation of this approach, however, is its inability to predict how these decisions have changed over time or to predict how institutions may make career-advancing decisions in the future.

References

Ábrahám, Á., Dengler, B., & Ziesemer, V. 2022. Economics PhD programs in Europe: Completion times and job placement. ***Journal of Economic Education***, 53(4): 325-339.

Adamovic, M. 2023. The cultural influence on employees' preferences for reward allocation rules: A two-wave survey study in 28 countries. ***Human Resource Management Journal***, 33(4): 889-921.

Aguinis, H., Cummings, C., Ramani, R. S., & Cummings, T. G. 2020. "An A Is An A": The New Bottom Line For Valuing Academic Research. ***Academy of Management Perspectives***, 34(1): 135-154.

Ahamad, F. 2019. Impact of word-of-mouth, job attributes and relationship strength on employer attractiveness. ***Management Research Review***, 42(6), 721-739.

Alabi, G., & Abdulai, M. 2016. Expectations and integration of early career academics into the teaching career: empirical evidence from Ghana. ***Studies in Higher Education***, 41(10): 1754-1771.

Allgood, S., Hoyt, G., & McGoldrick, K. 2018. Teacher training for PhD students and new faculty in economics. ***The Journal of Economic Education***, 49(2): 209-219.

Alonso, S., Cabrerizo, F. J., Cabrerizo, F. J., Herrera-Viedma, E., Herrera-Viedma, E., Herrera, F., & Herrera, F. 2010. hg-index: a new index to characterize the scientific output of researchers based on the h- and g-indices. ***Scientometrics***, 82(2): 391-400.

Alonso-Borrego, C., Romero-Medina, A., & Sanchez-Mangas, R., 2017. The impact of public research contracts on scientific productivity. ***Applied. Economics***, 49(5): 417–432.

Al-Turki, U., & Duffuaa, S. 2003. Performance measures for academic departments. ***International Journal of Educational Management***, 17(7): 330-338.

Anania, G., & Caruso, A. 2013. Two simple new bibliometric indexes to better evaluate research in disciplines where publications typically receive less citations. ***Scientometrics***, 96(2): 617-631.

Arrieta, J.P., & Shrestha, Y.R. 2022. On the strategic value of equifinal choice. ***Journal of Organization Design***, 11(2): 37-45.

Arthur, M. B., Claman, P. H., & DeFillippi, R. J. 1995. Intelligent enterprise, intelligent careers. ***The Academy of Management Executive***, 9(4): 7-22.

Austin, A. E. 2002. Preparing the next generation of faculty - Graduate school as socialization to the academic career. ***Journal of Higher Education***, 73(1): 94-122.

Ayoubi, C., Pezzoni, M., & Visentin, F. 2019. The important thing is not to win, it is to take part: what if scientists benefit from participating in research grant competitions? ***Research Policy***, 48(1): 84–97.

Bager-Elsborg, A. 2019. Discipline context shapes meaningful teaching: a case study of academic law. ***Journal of Further and Higher Education***, 43(4): 508-520.

Banal-Estanol, A., Jofre-Bonet, M., & Lawson, C. 2015. The double-edged sword of industry collaboration: evidence from engineering academics in the UK. ***Research Policy,*** 44(6): 1160–1175.

Banerjee-Batist, R., Gajjar, K., Saxena, P., Smetana, J. B., & Muduli, A. 2022. Leadership response to COVID-19: A comparative analysis of the education sector in USA and India. ***Human Resource Development International***, 25(3): 321-341.

Banks, G. C., Woznyj, H. M., Wesslen, R. S., Frear, K. A., Berka, G., Heggestad, E. D., & Gordon, H. L. 2019. Strategic Recruitment Across Borders: An Investigation of Multinational Enterprises. ***Journal of Management***, 45(2): 476-509.

Barley, S. R. 1989. ***Careers, identities, and institutions: The legacy of the Chicago School of Sociology***. In M. B. Arthur, D. T. Hall, & B. S. Lawrence (Eds.), ***Handbook of career theory*** (pp. 41–65). Cambridge University Press.

Barnard, S., Rose, A., Dainty, A., & Hassan, T. 2021. Understanding social constructions of becoming an academic through women's collective career narratives. ***Journal of Further and Higher Education***, 45(10): 1342-1355.

Barnes, P. 2019. Academic independence, freedom and 'enlightenment': The case of accounting research. ***Accounting History***, 24(4): 591-609.

Barney, C. E. 2019. The absence of teaching how to teach during the business management PhD programme: A call to action. ***Innovations in Education and Teaching International***, 56(1): 121-124.

Baruch, Y., & Hall, D. 2004. The academic career: A model for future careers in other sectors? ***Journal of Vocational Bahavior***, 64(2): 241-262.

Beasy, K., Crawford, J., Young, S., & Kelder, J. 2022. A quantitative study on Australian doctoral students' perceptions of employability preparedness: how gender and age matter. ***Journal of Further and Higher Education***, 46(8): 1092-1106.

Bedeian, A. G., Cavazos, D. E., Hunt, J. G. J., & Jauch, L. R. 2010. Doctoral degree prestige and the academic marketplace: A study of career mobility within the management discipline. ***Academy of Management Learning & Education***, 9(1): 11-25.

Behari-Leak, K. 2017. New academics, new higher education contexts: a critical perspective on professional development. ***Teaching in Higher Education***, 22(5): 485-500.

Bello, S. A., Azubuike, F. C., & Akande, O. A. 2023. Reputation disparity in teaching and research productivity and rewards in the context of consequences of institutionalization of Publish or Perish culture in academia. ***Higher Education Quarterly***, 77(3): 574-584.

Benavente, J. M., Crespi, G., Garone, L. F., & Maffioli, A. 2012. The impact of national research funds: a regression discontinuity approach to the Chilean FONDECYT. ***Research Policy***, 41(8): 1461–1475.

Bimrose, J., & Mulvey, R. 2015. Exploring career decision-making styles across three European countries. ***British Journal of Guidance and Counselling***, 43(3): 337–350.

Bojica, A. M., Olmos-Peñuela, J., & Alegre, J. 2023. A cross-country configurational approach to international academic mobility: exploring mobility effects on academics' career progression in EU countries. ***Higher Education***, 86(5): 1081-1105.

Bonaccorsi, A., Daraio, C., Fantoni, S., Folli, V., Leonetti, M., & Ruocco, G. 2017. Do social sciences and humanities behave like life and hard sciences? ***Scientometrics***, 112(1): 607-653.

Bradley, C., Moergen, K. J. N., Roumpi, D., & Simon, L. S. 2023. Don't just tell me, show me: Impacting perceptions of organizational attraction and fit using activating LGBT diversity signals. ***Personnel Psychology***, 1-29.

Breaugh, J. A. 1983. Realistic job previews: A critical appraisal and future research directions. ***Academy of Management Review***, 8: 612-619.

Burton, J. P., Bamberry, N. J., & Harris-Boundy, J. 2005. Developing personal teaching efficacy in new teachers in university settings. ***Academy of Management Learning & Education***, 4(2): 160-173.

Cagan, R. 2013. The San Francisco Declaration on Research Assessment. ***Disease Models & Mechanisms***, 6(4): 869-870.

Callahan, C. M., Spiceland, C. P., Spiceland, J. D., & Hairston, S. 2016. Pilot Course: A Teaching Practicum Course as an Integral Component of an Accounting Doctoral Program. ***Issues in Accounting Education***, 31(2): 191-210.

Cappellen, T., & Janssens, M. 2010. Enacting global careers: Organizational career scripts and the global economy as co-existing career referents. ***Journal of Organizational Behavior***, 31(5): 687-706.

Carpentier, M., Van Hoye, G., & Weijters, B. 2019. Attracting applicants through the organization's social media page: Signaling employer brand personality. ***Journal of Vocational Behavior***, 115: 103326.

Celani, A., & Singh, P. 2011. Signaling theory and applicant attraction outcomes. ***Personnel Review***, 40(2): 222-238.

Certo, S. T., Sirmon, D. G., & Brymer, R. A. 2010. Competition and Scholarly Productivity in Management: Investigating Changes in Scholarship from 1988 to 2008. ***Academy of Management Learning & Education***, 9(4): 591-606.

Chadha, D. 2013. Reconceptualising and reframing graduate teaching assistant (GTA) provision for a research-intensive institution. ***Teaching in Higher Education***, 18(2): 205-217.

Cho, Y., Kim, M., Svinicki, M. D., & Decker, M. L. 2011. Exploring teaching concerns and characteristics of graduate teaching assistants. ***Teaching in Higher Education***, 16(3): 267-279.

Cidlinská, K., & Zilincikova, Z. 2022. Thinking about leaving an academic career: gender differences across career stages. ***European Journal of Higher Education***, 1-22.

Clark, J., Hirsch, G., Jensen, P. H., & Webster, E. 2016. Research funding mechanisms and biomedical research outputs. ***Economic Papers***, 35(2): 142–15.

Coe, K., & Scacco, J. M. (2017) ***Content Analysis, Quantitative in The International Encyclopaedia of Communication Research Methods***. Hoboken, NJ: John Wiley & Sons.

Cohen, S., Hanna, P., Higham, J., Hopkins, D., & Orchiston, C. 2020. Gender discourses in academic mobility. ***Gender, Work, and Organization***, 27: 149- 165.

Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. 2011. Signaling theory: A review and assessment. ***Journal of Management***, 37(1): 39–67.

Croucher, G., & Lacy, W. B. 2022. The emergence of academic capitalism and university neoliberalism: perspectives of Australian higher education leadership. ***Higher Education***, 83(2): 279-295.

Dany, F., Louvel, S., & Valette, A. 2011. Academic careers: The limits of the "boundaryless approach" and the power of promotion scripts. ***Human Relations***, 64(7): 971-996.

Davenport, S., & Leitch, S. 2005. Circuits of Power in Practice: Strategic Ambiguity as Delegation of Authority. ***Organization Studies***, 26(11): 1603-1623.

Deb, P. 2013. Signaling type and post-IPO performance. ***European Management Review***, 10(2): 99-116.

Denyer, D., & Tranfield, D. 2009. ***Producing a Systematic Review, The SAGE handbook of organizational research methods***, SAGE, Los Angeles.

Dokko, G., Wilk, S. L., & Rothbard, N. P. 2009. Unpacking Prior Experience: How Career History Affects Job Performance. ***Organization Science***, 20(1): 51-68.

DORA 2013. *San Francisco Declaration on Research Assessment* [online]. Available at: https://sfdora.org/read/

Dotger, S. 2011. Exploring and developing graduate teaching assistants' pedagogies via lesson study. ***Teaching in Higher Education***, 16(2): 157-169.

Dunn, K. A., Hooks, K. L., & Kohlbeck, M. J. 2016. Preparing Future Accounting Faculty Members to Teach. ***Issues in Accounting Education***, 31(2): 155-170.

Duriau, V. J., Reger, R. K., & Pfarrer, M. D. 2007. A Content Analysis of the Content Analysis Literature in Organization Studies: Research Themes, Data Sources, and Methodological Refinements. ***Organizational Research Methods***, 10(1): 5-34.

Dyrstad, J. M., Sohlman, M. M. W., & Teigen, T. H. 2023. Government funding incentives and study program capacities in public universities: theory and evidence. ***Oxford Economic Papers***, 76(2) 585-607.

Ehrhart, K. H., & Ziegert, J. C. 2005. Why are individuals attracted to organizations? ***Journal of Management***, 31(6): 901–919.

Eisenberg, E. M. 2007. ***Strategic ambiguities: essays on communication, organization, and identity***. SAGE, Thousand Oaks, [Calif.]: London.

Elangovan, A. R., & Hoffman, A. J. 2021. The Pursuit of Success in Academia: Plato's Ghost Asks "What then?". ***Journal of Management Inquiry***, 30(1): 68-73.

Engels, T. C. E., Ossenblok, T. L. B., & Spruyt, E. H. J. 2012. Changing publication patterns in the Social Sciences and Humanities, 2000–2009. ***Scientometrics***, 93(2): 373-390.

Esdar, W., Gorges, J., & Wild, E. 2016. The role of basic need satisfaction for junior academics' goal conflicts and teaching motivation. ***Higher Education***,72(2): 175-190.

Fong, C. J., Gilmore, J., Pinder-Grover, T., & Hatcher, M. 2019. Examining the impact of four teaching development programmes for engineering teaching assistants. ***Journal of Further and Higher Education***, 43(3): 363-380.

Fornaciari, C. J., Arbaugh, J. B., Asarta, C. J., Bento, R. F., Hwang, A., & Lund Dean, K. 2017. Key institutions in business and management education research. ***Journal of Education for Business***, 92(5): 220-229.

Forray, J. M. 1996. Doctoral education and the teaching mission: A dialogue with Jean Bartunek, Lee Burke, Craig Lundberg, Jane Giacobbe Miller, Pushkala Prasad, and Chris Roberts. ***Journal of Management Education***, 20(1): 60-69.

Fox, K. J., & Milbourne, R. 1999. What Determines Research Output of Academic Economists? ***The Economic Record,*** 75(3): 256-267.

Fraser, K., Deng, X., Bruno, F., & Rashid, T. A. 2020. Should academic research be relevant and useful to practitioners? The contrasting difference between three applied disciplines. ***Studies in Higher Education***, 45(1): 129-144.

Fudickar, R., Hottenrott, H., & Lawson, C. 2018. What's the price of academic consulting? Effects of public and private sector consulting on academic research. ***Industrial and Corporate Change***, 27(4): 699-722.

Fukui, F. 2021. Do government appropriations and tax policies impact donations to public research universities in Japan and the USA? ***Higher Education***, 81(2): 325-344.

Galperin, R. V., Hahl, O., Sterling, A. D., & Guo, J. 2020. Too good to hire? Capability and inferences about commitment in labor markets. ***Administrative Science Quarterly***, 65(2): 275–313.

García-Carbonell, N., Guerrero-Alba, F., Martín-Alcázar, F., & Sánchez-Gardey, G. 2021. Academic human capital in universities: definition and proposal of a measurement scale. ***Science & Public Policy***, 48(6): 877-888.

Gilmore, J., Maher, M. A., Feldon, D. F., & Timmerman, B. 2014. Exploration of factors related to the development of science, technology, engineering, and mathematics graduate teaching assistants' teaching orientations. ***Studies in Higher Education***, 39(10): 1910-1928.

Gomulya, D., & Mishina, Y. 2017. Signaler Credibility, Signal Susceptibility, and Relative Reliance on Signals: How Stakeholders Change their Evaluative Processes After Violation of Expectations and Rehabilitative Efforts. ***Academy of Management Journal***, 60(2): 554-583.

Goodacre, A., Gaunt, C., & Henry, D. 2021. Publication records of Australian accounting and finance faculty promoted to full professor, set within an international context. ***Accounting and Finance***, 61: 3089-3133.

Goodlad, S. 1997. Responding to the perceived training needs of graduate teaching assistants. ***Studies in Higher Education***, 22(1): 83-92.

Grant, R. M. 1996. Toward a Knowledge-Based Theory of the Firm. ***Strategic Management Journal***, (17)2: 109-122.

Gunersel, A. B., Kaplan, A., Barnett, P., Etienne, M., & Ponnock, A. R. 2016. Profiles of change in motivation for teaching in higher education at an American research university. ***Teaching in Higher Education***, 21(6): 628-643.

Hazelkorn, E. 2018. Reshaping the world order of higher education: the role and impact of rankings on national and global systems. ***Policy Reviews in Higher Education***, 2(1): 4-31.

Helgesson, K. S., & Sjögren, E. 2019. No finish line: How formalization of academic assessment can undermine clarity and increase secrecy. ***Gender, Work, and Organization***, 26(4): 558-581.

Herberholz, L., & Wigger, B. U. 2021. Efficiency of European universities: A comparison of peers. ***Research Policy***, 50(9): 104314.

Hnatkova, E., Degtyarova, I., Kersschot, M., & Boman, J. 2022. Labour market perspectives for PhD graduates in Europe. ***European Journal of Education***, 57(3): 395-409.

Holder-Webb, L., & Trompeter, G. M. 2016. Mentoring Ph.D. Students into Effective Teaching and Service: Challenges and Opportunities. ***Issues in Accounting Education***, 31(2): 151-154.

Hollywood, A., McCarthy, D., Spencely, C., & Winstone, N. 2020. 'Overwhelmed at first': the experience of career development in early career academics. ***Journal of Further and Higher Education***, 44(7): 998-1012.

Horta, H., & Li, H. 2024. Ageism and age anxiety experienced by Chinese doctoral students in enacting a "successful" career script in academia. ***Higher Education***.

Horta, H., & Santos, J. M. 2023. Determinants of peer review engagement and quality in scientific journals: insights for academic research and the sustainability of the peer-review system. ***Studies in Higher Education***.

Horta, H., Dautel, V., & Veloso, F. M. 2012. An output perspective on the teaching-research nexus: an analysis focusing on the United States higher education system. ***Studies in Higher Education***, 37(2): 171-187.

Jepsen, D. M., Sun, J. J., Budhwar, P. S., Klehe, U., Krausert, A., Raghuram, S., & Valcour, M. 2014. International academic careers: personal reflections. ***International Journal of Human Resource Management***, 25(10): 1309-1326.

Jolson, M. A. 1974. Criteria for promotion and tenure: A faculty view. ***Academy of Management Journal***, 17(1): 149-154.

Jordan, K., & Howe, C. 2018. The perceived benefits and problems associated with teaching activities undertaken by doctoral students. ***Teaching in Higher Education***, 23(4): 504-521.

Kane, R., Sandretto, S., & Heath, C. 2004. An investigation into excellent tertiary teaching: Emphasising reflective practice. ***Higher Education***, 47(3): 283-310.

Kerr, J., & Slocum, J. W. 1987. Managing Corporate Culture through Reward Systems. ***Academy of Management Perspectives***, 1(2): 99-107.

Kolluri, B., Panik, M. J., & Singamsetti, R. 2017. ***Introduction to quantitative methods in business: with applications using Microsoft Office Excel***, Wiley, Hoboken, New Jersey.

Korhonen, V., & Torma, S. 2016. Engagement with a teaching career - how a group of Finnish university teachers experience teacher identity and professional growth. ***Journal of Further and Higher Education***, 40(1)*:* 65-82.

Krause, K. D. 2014. Challenging perspectives on learning and teaching in the disciplines: the academic voice. ***Studies in Higher Education***, 39(1): 2-19.

Kulcsár, V., Dobrean, A., & Gati, I. 2020. Challenges and difficulties in career decision making: Their causes, and their effects on the process and the decision. ***Journal of Vocational Behavior***, 116: 103346.

Laasch, O., Ryazanova, O., & Wright, A.L. 2022. Lingering Covid and Looming Grand Crises: Envisioning Business Schools' Business Model Transformations. ***Academy of Management Learning and Education***, 21(1): 1-6.

Lampley, S. A., Gardner, G. E., & Barlow, A. T. 2018. Exploring pedagogical content knowledge of biology graduate teaching assistants through their participation in lesson study. ***Teaching in Higher Education***, 23(4): 468-487.

Laudel, G., & Bielick, J. 2019. How do field-specific research practices affect mobility decisions of early career researchers? ***Research Policy***, 48(9): 103800.

Laudel, G., Bielick, J., & Gläser, J. 2019. 'Ultimately the question always is: "What do I have to do to do it right?"' Scripts as explanatory factors of career decisions. ***Human Relations***, 72(5): 932-961.

Le, B. N., & Morschett, D. 2023. Employer Attractiveness of EMNEs: The Role of CSR in Overcoming Country-of-Origin Image Constraints in Developed Host Countries. ***Management International Review***, 63(2): 313-346.

Lee, K., & Lee, H. 2017. Korean graduate students' perceptions of guidance and professional development. ***Higher Education***, 73(5): 725-740.

Li, L., Shen, W., & Xie, A. 2019. Why students leave Chinese elite universities for doctoral studies abroad: Institutional habitus, career script and college graduates' decision to study abroad. ***International Journal of Educational Development***, 84: 102408.

Lindgreen, A., & Di Benedetto, C. A. 2022. How to prepare one's tenure or promotion dossier. ***Industrial Marketing Management***, 102: A1-A7.

Lissoni, F., Mairesse, J., Montobbio, F., & Pezzoni, M. 2011. Scientific productivity and academic promotion: A study on French and Italian physicists. ***Industrial and Corporate Change***, 20(1): 253-294.

Lott, L. 2023. Academic freedom growth and decline episodes. ***Higher Education***.

Lu, J., Velten, B., Klaus, B., Ramm, M., Huber, W., & Coulthard-Graf, R. 2023. The changing career paths of PhDs and postdocs trained at EMBL. ***eLife***, 12: 1-16.

Mantai, L., & Marrone, M. 2023. Academic career progression from early career researcher to professor: what can we learn from job ads. ***Studies in Higher Education,*** 48(6): 797-812.

Marginson, S., & Yang, L. 2023. Has the public good of higher education been emptied out? The case of England. ***Higher Education***.

Marie Cappelen, S., & Strandgaard Pedersen, J. 2021. Inventing Culinary Heritage through Strategic Historical Ambiguity. ***Organization Studies***, 42(2): 223–243.

Marx, R. D., Garcia, J. E., Butterfield, D. A., Kappen, J. A., & Baldwin, T. T. 2016. Isn't It Time We Did Something About the Lack of Teaching Preparation in Business Doctoral Programs? ***Journal of Management Education***, 40(5): 489-515.

McLean, N., & Price, L. 2019. Identity formation among novice academic teachers - a longitudinal study. ***Studies in Higher Education***, 44(6): 990-1003.

Mitten, C., & Ross, D. 2018. Sustaining a commitment to teaching in a research-intensive university: what we learn from award-winning faculty. ***Studies in Higher Education***, 43(8): 1348-1361.

Mizrahi, S. 2021. Performance funding and management in higher education: The autonomy paradox and failures in accountability. ***Public Performance & Management Review***, 44(2): 294-320.

Morgan-Thomas, A., Tsoukas, S., Dudau, A. & Gąska, P. 2024. Beyond declarations: Metrics, rankings and responsible assessment, ***Research Policy***, 53(10): 105093.

Mu, F., & Hatch, J. 2021. Becoming a teacher scholar: The perils and promise of meeting the promotion and tenure requirements in a business school. ***Journal of Management Education***, 45(2): 293-318.

Mueller. E. F., & Schnurbus, J. 2023. Heeding the Call of Science: What Leads PhD Graduates to Pursue an Academic Career? ***Academy of Management Learning & Education***, 22(4): 681-701.

Muscio, A., Ramaciotti, L., & Rizzo, U. 2017. The complex relationship between academic engagement and research output: Evidence from Italy. ***Science & Public Policy,*** 44(2): 235-245.

Musselin, C. 2004. Towards a European academic labour market?: Some lessons drawn from empirical studies on academic mobility, ***Higher Education***, 48(1): 55-78.

Muzaka, V. 2009. The niche of Graduate Teaching Assistants (GTAs): perceptions and reflections. ***Teaching in Higher Education***, 14(1): 1-12.

Naderi, A. 2022. Efficiency measurement of higher education units using multilevel frontier analysis. ***Journal of Productivity Analysis***, 57(1): 79-92.

Nästesjö, J. 2023. Managing the rules of recognition: how early career academics negotiate career scripts through identity work. ***Studies in Higher Education***, 48(4): 657-669.

Nerad, M. 2004. The PhD in the US: Criticisms, facts, and remedies. ***Higher Education Policy***, 17(2): 183-199.

Nevin, A. D. 2019. Academic Hiring Networks and Institutional Prestige: A Case Study of Canadian Sociology. ***The Canadian Review of Sociology***, 56(3): 389-420.

Nicholls, G. 2005. New lecturers' constructions of learning, teaching and research in higher education. ***Studies in Higher Education***, 30(5): 611-625.

O'Neill, G., & McNamara, M. 2016. Passing the baton: a collaborative approach to development and implementation of context-specific modules for graduate teaching assistants in cognate disciplines. ***Innovations in Education and Teaching International***, 53(6): 570-580.

O'Connor, M. D., Denejkina, A., & Arvanitakis, J. 2023. Preparing doctoral candidates for employment: Delivering research and employability skills training in the PhD via

work-integrated learning. ***International Journal of Work-Integrated Learning***, 24(1): 19-42.

Oleson, A., & Hora, M. T. 2014. Teaching the way they were taught? Revisiting the sources of teaching knowledge and the role of prior experience in shaping faculty teaching practices. ***Higher Education***, 68(1): 29-45.

Olsson, E. J. 2023. Academic freedom and the decolonisation of knowledge: curriculum transformation in South Africa from a UNESCO perspective. ***Studies in Higher Education***, 48(8): 1172-1182.

Osman, R., & Hornsby, D. J. 2016. Communities and scholarship in supporting early-career academics at the University of the Witwatersrand. ***Studies in Higher Education***, 41(10): 1835-1853.

Palumbo, R., & Cavallone, M. 2023. Unravelling the implications of learning experiences on doctoral degree holders' employment: empirical insights and avenues for further developments. ***European Journal of Higher Education***, 13(3): 387-407.

Park, C. 2004. The graduate teaching assistant (GTA): lessons from North American experience. ***Teaching in Higher Education***, 9(3): 349-361.

Park, H. D., & Patel, P. C. 2015. How does ambiguity influence IPO underpricing? the role of the signalling environment. ***Journal of Management Studies***, 52(6): 796-818.

Parker, J. 2008. Comparing research and teaching in university promotion criteria. ***Higher Education Quarterly***, 62: 237-251.

Pataraia, N., Margaryan, A., Falconer, I., & Littlejohn, A. 2015. How and what do academics learn through their personal networks. ***Journal of Further and Higher Education***, 39(3): 336-357.

Pearce, J. L., Branyiczki, I., & Bakacsi, G. (1994). Person-based reward systems: A theory of organizational reward practices in reform-communist organizations. ***Journal of Organizational Behavior***, 15(3): 261-282.

Pernkopf, K., Latzke, M., & Mayrhofer, W. 2021. Effects of mixed signals on employer attractiveness: A mixed-method study based on signalling and convention theory. ***Human Resource Management Journal***, 31(2): 392-413.

Phillips, J. M. 1998. Effects of realistic job previews on multiple organizational outcomes: A meta-analysis. ***Academy of Management Journal***, 41: 673-690.

Phillips, J. M., & Gully, S. M. 2015. Multilevel and strategic recruiting: Where have we been, where can we go from here? ***Journal of Management***, 41: 1416-1445.

Pineda, P., & Salazar Morales, D. 2023. Managerialism, accreditation and insecure academic employment across different higher education traditions. ***Studies in Higher Education***, 1-24.

Pinheiro, D. L., Melkers, J., & Newton, S. 2017. Take me where I want to go: Institutional prestige, advisor sponsorship, and academic career placement preferences. ***PloS One***, 12(5): 1-24.

Postareff, L., Lindblom-Ylanne, S., & Nevgi, A. 2008. A follow-up study of the effect of pedagogical training on teaching in higher education. ***Higher Education***, 56(1): 29-43.

Rasmussen, A., & Andreasen, K. E. 2023. To and from the university: employability discourses and narratives of PhD graduates from the social sciences and humanities in Denmark. ***Studies in Higher Education***, 48(10): 1551-1562.

Reddy, J. S., Sharma, R., & Gupta, N. 2024. The accreditation paradigm: a comparative analysis of accreditations for management programmes. ***International Journal of Educational Management***, 38(1): 73-95.

Reddy, S., Searle, R. L., Shawa, L. B., & Teferra, D. 2016. A balancing act: facilitating a University Education Induction Programme for (early career) academics. ***Studies in Higher Education***, 41(10): 1820-1834.

Reithmeier, R., O'Leary, L., Zhu, X., Dales, C., Abdulkarim, A., Aquil, A., Brouillard, L., Chang, S., Miller, S., Shi, W., Vu, N., & Zou, C. 2019. The 10,000 PhDs project at the University of Toronto: Using employment outcome data to inform graduate education. ***PloS One***, 14(1): 1-12.

Renta-Davids, A. I., Jimenez-Gonzalez, J. M., Fandos-Garrido, M., & Gonzalez-Soto, A. P. 2016. Organisational and training factors affecting academic teacher training outcomes. ***Teaching in Higher Education***, 21(2): 219-231.

Ritter, B. A. 2019. Crafting a Culture That Values Exceptional Teaching Practice: A Dean's Perspective. ***Journal of Management Education***, 43(3): 262-270.

Ryazanova, O., & Jaskiene, J. 2022. Managing individual research productivity in academic organizations: A review of the evidence and a path forward. ***Research Policy***, 51(2): 1-17.

Ryazanova, O., & McNamara, P. 2019. Choices and consequences: Impact of mobility on research-career capital and promotion in business schools. ***Academy of Management Learning & Education***, 18(2): 186-212.

Ryazanova, O., McNamara, P., & Aguinis, H. 2017. Research performance as a quality signal in international labor markets: Visibility of business schools worldwide through a global research performance system. ***Journal of World Business***, 52(6): 831-841.

Santos, G. G. 2016. Career barriers influencing career success: A focus on academics' perceptions and experiences. ***Career Development International***, 21(1): 60-84.

Schnader, A. L., Westermann, K. D., Downey, D. H., & Thibodeau, J. C. 2016. Training Teacher-Scholars: A Mentorship Program. ***Issues in Accounting Education***, 31(2): 171-190.

Shannon, D. M., Twale, D. J., & Moore, M. S. 1998. TA teaching effectiveness - The impact of training and teaching experience. ***Journal of Higher Education***, 69(4): 440-466.

Sherif, K., Nan, N., & Brice, J. 2020. Career success in academia. ***Career Development International***, 25(6): 597-616.

Spannagel, J. 2023. Introducing Academic Freedom in Constitutions: a new global dataset, 1789–2022. ***European Political Science***.

Spence, M. 1973. Job market signaling. ***The Quarterly Journal of Economics***, 87(3): 355–374.

Spronken-Smith, R., Brown, K., & Cameron, C. 2024. Perceptions of graduate attribute development and application in PhD graduates from US and NZ universities. ***Assessment and Evaluation in Higher Education***, 49(1): 86-101.

Steigenberger, M., & Wilhelm. 2018. Extending signaling theory to rhetorical signals: Evidence from crowdfunding. ***Organization Science***, 29(3): 529-546.

Stratford, E., Watson, P., & Paull, B. 2023. What impedes and enables flourishing among early career academics? ***Higher Education***.

Subbaye, R., & Dhunpath, R. 2016. Early-career academic support at the University of KwaZulu-Natal: towards a scholarship of teaching. ***Studies in Higher Education***, 41(10): 1803-1819.

Sugimoto, C.R. & Larivière, V. 2018. ***Measuring research: what everyone needs to know,*** Oxford University Press, New York, NY.

Sumelius, J., Smale, A., & Yamao, S. 2020. Mixed signals: employee reactions to talent status communication amidst strategic ambiguity. ***International Journal of Human Resource Management***, 31(4): 511-538.

Taj, S. A. 2016. Application of signaling theory in management research: Addressing major gaps in theory. ***European Management Journal***, 34(4): 338-348.

Taylor, S. W., Fender, B. F., & Burke, K. G. 2006. Unraveling the Academic Productivity of Economists: The Opportunity Costs of Teaching and Service. ***Southern Economic Journal***, 72(4): 846-859.

Thanassoulis, E., Sotiros, D., Koronakos, G., & Despotis, D. 2018. Assessing the cost-effectiveness of university academic recruitment and promotion policies. ***European Journal of Operational Research***, 264(2): 742-755.

Times Higher Education 2020. *World University Rankings 2020* [online]. Available at: https://www.timeshighereducation.com/world-university-rankings/2020/world-ranking#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/stats.

Times Higher Education. 2018. *How to participate in Times Higher Education rankings* [online]. Available at: https://www.timeshighereducation.com/how-participate-times-higher-education-rankings.

Times Higher Education. 2020. *Best Public Universities in the United States 2020* [online]. Available at: https://www.timeshighereducation.com/student/best-universities/best-public-universities-united-states.

Toole, A. A., & Czarnitzki, D. 2009. Exploring the Relationship Between Scientist Human Capital and Firm Performance: The Case of Biomedical Academic Entrepreneurs in the SBIR Program. ***Management Science***, 55(1): 101-114.

Tourish, D. 2011. Leading questions: Journal rankings, academic freedom and performativity: What is, or should be, the future of Leadership? ***Leadership,*** 7(3): 367-381.

Van Helden, D. L., Den Dulk, L., Steijn, B., & Vernooij, M. W. 2023. Career implications of career shocks through the lens of gender: the role of the academic career script. ***Career Development International***, 28(1): 9-32.

van Nes, F., Abma, T., Jonsson, H., & Deeg, D. 2010. Language differences in qualitative research: is meaning lost in translation? ***European Journal of Ageing***, 7(4): 313-316.

Vardi, I., & Quin, R. 2011. Promotion and the scholarship of teaching and learning. ***Higher Education Research & Development***, 30: 39-49.

Vögtle, E. M., & Windzio, M. 2024. Does academic freedom matter for global student mobility? Results from longitudinal network data 2009–2017. ***Higher Education***, 87(2): 433-452.

Walker, J. T., Fenton, E., Salter, A., & Salandra, R. 2019. What Influences Business Academics' Use of the Association of Business Schools (ABS) List? Evidence From a Survey of UK Academics. ***British Journal of Management***, 30(3): 730-747.

Walters, D., Zarifa, D., & Etmanski, B. 2021. Employment in Academia: To What Extent Are Recent Doctoral Graduates of Various Fields of Study Obtaining Permanent Versus Temporary Academic Jobs in Canada? ***Higher Education Policy,*** 34(4): 969-991.

Wang, L. 2022. Newbie or experienced: an empirical study on faculty recruitment preferences at top national HEIs in China. ***Studies in Higher Education,*** 47(40): 783-798.

Wapman, K. H., Zhang, S., Clauset, A., & Larremore, D. B. 2022. Quantifying hierarchy and dynamics in US faculty hiring and retention. ***Nature***, 610(7930): 120-127.

Whitchurch, C., Locke, W., & Marini, G. 2021. Challenging career models in higher education: the influence of internal career scripts and the rise of the "concertina" career. ***Higher Education***, 82(3): 635-650.

Wiley, C., Wallingford, V., Monllor-Tormos, M., & Konyu-Fogel, G. 2016. Faculty promotion in business schools: What counts and what should count? ***Journal of Higher Education Theory and Practice***, 16(4): 105-123.

Winberg, C., Adendorff, H., Bozalek, V., Conana, H., Pallitt, N., Wolff, K., Olsson, T., & Roxa, T. 2019. Learning to teach STEM disciplines in higher education: a critical review of the literature. ***Teaching in Higher Education***, 24(8): 930-947.

Zacher, H., Rudolph, C. W., Todorovic, T., & Ammann, D. 2019. Academic career development: A review and research agenda. ***Journal of Vocational Behavior***, 110(B): 357-373.

Appendices

Appendix A. Promotion Document Checklist

1. **Where applicable, does the institution award promotion and tenure together or separately?**
2. **Does the institution apply weighting to performance classifications?**

   Example,

   a. *40% in research, 40% in teaching, and 20% in service*
   b. *"Excellence" in 1 area of performance and "satisfactory" in the other areas*

3. **How does the institution classify performance criteria? (e.g., is funding a research, teaching or service criterion or all three?)**

   Pay particular attention to,

   a. *Pedagogical publication*
   b. *Funding*
   c. *Awards*
   d. *Postgraduate research supervision*
   e. *Student support*

4. **At what level of the institution do they seek service involvement?**

   Example,

   a. *At the academic unit level*
   b. *At the university-wide level*

5. **What level of involvement do institutions want faculty involved in external associations?**

   Example,

   a. *Contributing to*
   b. *Leading*

Appendix B. Promotion Document Codebook

- Only one answer may be chosen for each question.
- When the listed answers do not apply, choose the option "other" and note the correct answer. The other answers will then be reviewed and coded at a later stage.
- Where a question does not apply (e.g., it is a sub-question following a "not stated" answer to a parent question) please select "not applicable".
- No question should be left unanswered.

1. The institution (name only): _____

2. Length of document by page number(s) (numerical values only):

3. Is the document a standalone promotion/tenure document or contained within a larger institutional policy document?

1) A standalone promotion/tenure document ☐

2) Contained in a larger institutional policy document. ☐

4. If you selected "2) Contained in a larger institutional policy document" to question 3, how many pages within this institutional policy document are dedicated to the promotion policy of the institution?

**Select "0) Not applicable" if you selected "1) A standalone promotion/tenure document" to question*

1. : (numerical values only)

0. Not applicable* ☐

5. Country of origin of institution

1) Ireland ☐

2) United Kingdom ☐

3) United States ☐

4) Australia ☐

5) New Zealand ☐

6) Canada ☐

6. **Academic position**

1) Senior Lecturer ☐
2) Associate Professor ☐
3) Reader (Principle Academic) ☐
4) Professor ☐
5) General Criteria ☐
6) Other: ☐

7. **Does the institution provide a single set of criteria to cover both tenure and promotion or are there different sets of criteria?**

1) Tenure and promotion have a different set of criteria ☐
2) Tenure and promotion have the same set of criteria (i.e., one set of criteria which apply to both) ☐
3) The institution provides promotion criteria with no mention of tenure ☐
4) Not stated ☐

8. **Are tenure and promotion awarded together?**

1) The awarding of promotion in rank carries tenure ☐
2) An award in one does not guarantee an award in the other ☐
3) Not stated ☐

9. **Does the institution assign different weights/classifications to research, teaching, and service activities*?**

**Note that this can be a quantitative measure (e.g., 40% research, 40% teaching, and 20% service) or a qualitative measure (e.g., outstanding in two areas and satisfactory in one).*

1) Yes, using a qualitative measure ☐
2) Yes, using a quantitative measure ☐
3) Yes, using a combination of qualitative and quantitative measures ☐
4) Not stated ☐

10. **What general level of measurement is used to describe research productivity?**

1) Strong ☐
2) High ☐
3) Very high ☐
4) Excellent ☐
5) Satisfactory ☐
6) Substantial ☐
7) Outstanding ☐
8) Exceptional ☐
9) Other: ☐
10) Not stated ☐

11. **Is the research output quantifiable?**

1) Yes ☐
2) Not stated ☐

12. **If yes to question 11, what quantity of research output does the institution seek?**

**If you answered "2) Not stated" to question 11, please select "5) Not applicable" to this question*

1) 1-3 outputs ☐
2) 4-7 outputs ☐
3) 7-10 outputs ☐
4) 10+ outputs ☐
5) Not applicable* ☐

13. **For UK institutions, what REF (Research Excellence Framework) score is research output measured by?**

Select "12) Not applicable" for all non-UK institutions.

1) 1* ☐
2) 2* ☐
3) 3* ☐
4) 4* ☐

5) 1* & 2* ☐

6) 1*, 2*, &/or 3* ☐

7) 1*, 2*, 3*, &/or 4* ☐

8) 2* & 3* ☐

9) 2*, 3*, &/or 4* ☐

10) 3* & 4* ☐

11) Not stated ☐

12) Not applicable ☐

14. What geographical research reputation does the institution seek?

1) Regional ☐

2) National ☐

3) International ☐

4) Regional & national ☐

5) Regional & international ☐

6) Regional, national, & international ☐

7) National or international ☐

8) Regional or national ☐

9) Regional or international ☐

10) Regional, national, or international ☐

11) National or international ☐

12) Not stated ☐

15. Seeks involvement in collaborative research

1) Yes ☐

2) Not stated ☐

16. What quality of teaching does the institution seek?

1) Strong ☐

2) High ☐

3) Very high ☐

4) Excellent ☐

5) Satisfactory ☐

6) Substantial ☐

7) Outstanding ☐

8) Exceptional ☐

9) Other: ☐

10) Not stated ☐

17. From whom does the institution want teaching evaluations?

1) Students ☐

2) Peers/Colleagues ☐

3) Self/Independent ☐

4) Students and Peers/Colleagues ☐

5) Student and Self/Independent ☐

6) Students, Peers/Colleagues, & Self/Independent ☐

7) Peers/Colleagues & Self/Independent ☐

8) Other: ☐

9) Not stated ☐

18. What teaching contributions does the institution seek?

1) Undergraduate (UG) ☐

2) Postgraduate Taught (PGT) ☐

3) Executive Education (EE) ☐

4) Postgraduate Research (PGR) ☐

5) UG & PGT ☐

6) UG, PGT, & EE ☐

7) UG, PGT, EE, & PGR ☐

8) UG, PGT & PGR ☐

9) UG & EE ☐

10) PGT, & EE ☐

11) PGT, EE, & PGR ☐

12) PGT & PGR ☐

13) Not stated ☐

19. Seeks formal teaching training

1) Yes ☐

2) Not stated ☐

20. If applicable, what level of Higher Education Authority (HEA) status does the institution seek?

1) Fellow or higher ☐

2) Senior fellow or higher ☐

3) Principal fellow or higher ☐

4) Not stated / applicable ☐

21. How is service classified?

1) General category of service (i.e., one set of criteria which encompasses internal, external, and societal service activities) ☐

2) Separated into internal and external service ☐

3) Separated into internal, external, and societal service ☐

4) Separated into internal and social service ☐

5) Separated into external and social service ☐

6) Separated into internal/external and society service ☐

7) Separated into internal/society and external service ☐

8) Separated into external/society and internal service ☐

9) Other: ☐

10) Not mentioned ☐

22. How is a faculty's involvement in service activities generally classified?

1) Influence ☐

2) Participate ☐

3) Contribute ☐

4) Involved in ☐

5) Supervise ☐

6) Lead ☐

7) Manage ☐

8) Chair ☐

9) Other: ☐

10) Not stated ☐

23. Does the institution seek postgraduate student supervision?

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐
7) Yes (research, teaching, & service criterion) ☐
8) Yes, not listed under a category ☐
9) Not stated ☐

24. If yes to question 23, how many students are required to be supervised to completion?

**If you answered "9) Not stated" to question 23, please select "7) Not applicable" to this question*

1) 1 ☐
2) 2 ☐
3) 3 ☐
4) 4 ☐
5) 5 or more ☐
6) Not stated ☐
7) Not applicable* ☐

25. Does the institution seek involvement in academic societies and committees?

1) Yes, at the membership level (research criterion) ☐
2) Yes, at the leader/chair level (research criterion) ☐
3) Yes, at the membership level (teaching criterion) ☐
4) Yes, at the leader/chair level (teaching criterion) ☐
5) Yes, at the membership level (service criterion) ☐
6) Yes, at the leader/chair level (service criterion) ☐
7) Yes, at the membership level (no category) ☐
8) Yes, at the leader/chair level (no category) ☐

9) Not stated ☐

26. Does the institution seek keynote lecture invitation(s)?

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐
7) Yes (research, teaching, & service criterion) ☐
8) Yes, not listed under a category ☐
9) Not stated ☐

27. Does the institution seek visiting appointment(s)?

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐
7) Yes (research, teaching, & service criterion) ☐
8) Yes, not listed under a category ☐
9) Not stated ☐

28. If yes to question 27, what prestige classification does the institution want the appointing institution to be classified as?

**If you answered "9) Not stated" to question 27, select "7) Not applicable" to this question*

1) Leading ☐
2) Prestigious ☐
3) World-class ☐
4) Internationally recognized ☐
5) Other: ☐
6) Not stated ☐

7) Not applicable* ☐

29. Seeks committee chair role

1) Yes, at the academic unit level ☐
2) Yes, at the university level ☐
3) Yes, at the academic unit and university levels ☐
4) Yes, but no level stated ☐
5) Not stated ☐

30. If you answered 1-4 for question 29, what category was this listed under?

**If you answered "5) Not stated" to question 29, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐
3) Service ☐
4) Research & teaching ☐
5) Teaching & service ☐
6) Service & research ☐
7) Research, teaching, & service ☐
8) Not listed under a category ☐
9) Not applicable* ☐

31. Seeks involvement in research centre/group

1) Yes, at the membership level (research criterion) ☐
2) Yes, at the leader/chair level (research criterion) ☐
3) Yes, at the membership level (service criterion) ☐
4) Yes, at the leader/chair level (service criterion) ☐
5) Yes, at the membership level (no category) ☐
6) Yes, at the leader/chair level (no category) ☐
7) Not stated ☐

32. Seeks the leading of an initiative

1) Yes, at the academic unit level ☐
2) Yes, at the university level ☐
3) Yes, at the academic unit and university levels ☐

4) Yes, but no level stated ☐

5) Not stated ☐

33. If you answered 1-4 for question 32, what category was this listed under?

**If you answered "5) Not stated" to question 32, please select "9) Not applicable" to this question*

1) Research ☐

2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

34. Seeks external examiner role of doctoral student(s)

1) Yes (research criterion) ☐

2) Yes (teaching criterion) ☐

3) Yes (service criterion) ☐

4) Yes (research & teaching criterion) ☐

5) Yes (teaching & service criterion) ☐

6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

35. Seeks involvement in the training/educating/mentoring of other personnel.

1) Yes, at the academic unit level ☐

2) Yes, at the university level ☐

3) Yes, at the academic unit and university levels ☐

4) Yes, but no level stated ☐

5) Not stated ☐

36. If you answered 1-4 to question 35, what category was this listed under?

**If you answered "5) Not stated" to question 35, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐
3) Service ☐
4) Research & teaching ☐
5) Teaching & service ☐
6) Service & research ☐
7) Research, teaching, & service ☐
8) Not listed under a category ☐
9) Not applicable* ☐

37. Seeks involvement in the journal peer-review process (i.e., reviewing for academic journals)

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐
7) Yes (research, teaching, & service criterion) ☐
8) Yes, not listed under a category ☐
9) Not stated ☐

38. Seeks a position on an academic journal's editorial board (i.e., an editorial board member)

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

39. Seeks an editorial role for an academic journal (e.g., Associate Editor, Editor, (Co) Editor-in-Chef)

1) Yes (research criterion) ☐

2) Yes (teaching criterion) ☐

3) Yes (service criterion) ☐

4) Yes (research & teaching criterion) ☐

5) Yes (teaching & service criterion) ☐

6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

40. Seeks evidence of educational leadership

1) Yes (research criterion) ☐

2) Yes (teaching criterion) ☐

3) Yes (service criterion) ☐

4) Yes (research & teaching criterion) ☐

5) Yes (teaching & service criterion) ☐

6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

41. Seeks chairing of exam boards/external examining?

1) Yes (research criterion) ☐

2) Yes (teaching criterion) ☐

3) Yes (service criterion) ☐

4) Yes (research & teaching criterion) ☐

5) Yes (teaching & service criterion) ☐

6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

42. Seeks involvement in initiatives to improve student experience and academic performance

1) Influence ☐

2) Participate ☐

3) Contribute ☐

4) Involved in ☐

5) Supervise ☐

6) Lead ☐

7) Manage ☐

8) Chair ☐

9) Other: ☐

10) Not stated ☐

43. If you answered 1-9 to question 42, at what level does the institution seek?

**Select "5) Not applicable" if you selected "10) Not stated" to question 42.*

1) Academic unit level ☐

2) University level ☐

3) Both academic unit and university levels ☐

4) Not stated ☐

5) Not applicable* ☐

44. If you answered 1-9 for question 42, what category was this listed under?

**If you answered "10) Not stated" to question 42, please select "9) Not applicable" to this question*

1) Research ☐

2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

45. Seeks involvement in academic quality assurance

1) Yes (research criterion) ☐

2) Yes (teaching criterion) ☐

3) Yes (service criterion) ☐

4) Yes (research & teaching criterion) ☐

5) Yes (teaching & service criterion) ☐

6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

46. Seeks pedagogical publications and presentations

1) Yes (research criterion) ☐

2) Yes (teaching criterion) ☐

3) Yes (service criterion) ☐

4) Yes (research & teaching criterion) ☐

5) Yes (teaching & service criterion) ☐

6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

47. What committee involvement does the institution seek?

1) Influence ☐

2) Participate ☐

3) Contribute ☐

4) Involved in ☐

5) Supervise ☐

6) Lead ☐

7) Manage ☐

8) Chair ☐

9) Other: ☐

10) Not stated ☐

48. If you answered 1-9 to question 47, at what level does the institution seek?

**Select "5) Not applicable" if you selected "10) Not stated" to question 47.*

1) Academic unit level ☐

2) University level ☐

3) Both academic unit and university levels ☐

4) Not stated ☐

5) Not applicable* ☐

49. If you answered 1-9 for question 47, what category was this listed under?

**If you answered "10) Not stated" to question 47, please select "9) Not applicable" to this question*

1) Research ☐

2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

50. What governance involvement does the institution seek?

1) Influence ☐

2) Participate ☐

3) Contribute ☐

4) Involved in ☐

5) Supervise ☐

6) Lead ☐

7) Manage ☐

8) Chair ☐

9) Other: ☐

10) Not stated ☐

51. If you answered 1-9 to question 50, at what level does the institution seek?

**Select "5) Not applicable" if you selected "10) Not stated" to question 50.*

1) Academic unit level ☐

2) University level ☐

3) Both academic unit and university levels ☐

4) Not stated ☐

5) Not applicable* ☐

52. If you answered 1-9 for question 50, what category was this listed under?

**If you answered "10) Not stated" to question 50, please select "9) Not applicable" to this question*

1) Research ☐

2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

53. What operational involvement does the institution seek?

1) Influence ☐

2) Participate ☐

3) Contribute ☐

4) Involved in ☐

5) Supervise ☐

6) Lead ☐

7) Manage ☐

8) Chair ☐

9) Other: ☐

10) Not stated ☐

54. If you answered 1-9 to question 53, at what level does the institution seek?

**Select "5) Not applicable" if you selected "10) Not stated" to question 53.*

1) Academic unit level ☐

2) University level ☐

3) Both academic unit and university levels ☐

4) Not stated ☐

5) Not applicable* ☐

55. If you answered 1-9 for question 53, what category was this listed under?

**If you answered "10) Not stated" to question 53, please select "9) Not applicable" to this question*

1) Research ☐

2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

56. Seeks societal impact

1) Yes (research criterion) ☐

2) Yes (teaching criterion) ☐

3) Yes (service criterion) ☐

4) Yes (research & teaching criterion) ☐

5) Yes (teaching & service criterion) ☐

6) Yes (service & research criterion) ☐

7) Yes (research, teaching, & service criterion) ☐

8) Yes, not listed under a category ☐

9) Not stated ☐

57. Seeks obtainment of grants/external funding

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐
7) Yes (research, teaching, & service criterion) ☐
8) Yes, not listed under a category ☐
9) Not stated ☐

58. Seeks obtainment of award(s)

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐
7) Yes (research, teaching, & service criterion) ☐
8) Yes, not listed under a category ☐
9) Not stated ☐

59. What level of involvement in course design and delivery does the institution seek?

1) Influence ☐
2) Participate ☐
3) Contribute ☐
4) Involved in ☐
5) Supervise ☐
6) Lead ☐
7) Manage ☐
8) Chair ☐
9) Other: ☐

10) Not stated ☐

60. If you answered 1-9 to question 59, at what level does the institution seek?

**Select "5) Not applicable" if you selected "10) Not stated" to question 59.*

1) Academic unit level ☐
2) University level ☐
3) Both academic unit and university levels ☐
4) Not stated ☐
5) Not applicable* ☐

61. Seeks pedagogical innovations

1) Yes (research criterion) ☐
2) Yes (teaching criterion) ☐
3) Yes (service criterion) ☐
4) Yes (research & teaching criterion) ☐
5) Yes (teaching & service criterion) ☐
6) Yes (service & research criterion) ☐
7) Yes (research, teaching, & service criterion) ☐
8) Yes, not listed under a category ☐
9) Not stated ☐

62. Seeks faculty to be or have been involved in administrative activities/managerial positions.

1) Yes, at the academic unit level ☐
2) Yes, at the university level ☐
3) Yes, at the academic unit and university levels ☐
4) Yes, but no level mentioned ☐
5) Not stated ☐

63. If you answered 1-4 for question 62, what category was this listed under?

**If you answered "5) Not stated" to question 62, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐
3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

64. What involvement in university recruitment and outreach does the institution seek?

1) Influence ☐

2) Participate ☐

3) Contribute ☐

4) Involved in ☐

5) Supervise ☐

6) Lead ☐

7) Manage ☐

8) Chair ☐

9) Other: ☐

10) Not stated ☐

65. If you answered 1-9 for question 64, what category was this listed under?

**If you answered "10) Not stated" to question 64, please select "9) Not applicable" to this question*

1) Research ☐

2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

66. What involvement in university promotion does the institution seek?

1) Influence ☐
2) Participate ☐
3) Contribute ☐
4) Involved in ☐
5) Supervise ☐
6) Lead ☐
7) Manage ☐
8) Chair ☐
9) Other: ☐
10) Not stated ☐

67. If you answered 1-9 for question 66, what category was this listed under?

**If you answered "10) Not stated" to question 66, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐
3) Service ☐
4) Research & teaching ☐
5) Teaching & service ☐
6) Service & research ☐
7) Research, teaching, & service ☐
8) Not listed under a category ☐
9) Not applicable* ☐

68. Does the institution seek mentoring/coaching/advising of students?

1) Yes ☐
2) Not stated ☐

69. If you answered 1) Yes to question 68, what category was this listed under?

**If you answered "2) Not stated" to question 68, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

70. What involvement in national policy/regulation/legislation does the institution seek?

1) Influence ☐

2) Participate ☐

3) Contribute ☐

4) Involved in ☐

5) Supervise ☐

6) Lead ☐

7) Manage ☐

8) Chair ☐

9) Other: ☐

10) Not stated ☐

71. If you answered 1-9 for question 70, what category was this listed under?

**If you answered "10) Not stated" to question 70, please select "9) Not applicable" to this question*

1) Research ☐

2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

72. What involvement in community-based activities does the institution seek?

1) Influence ☐
2) Participate ☐
3) Contribute ☐
4) Involved in ☐
5) Supervise ☐
6) Lead ☐
7) Manage ☐
8) Chair ☐
9) Other: ☐
10) Not stated ☐

73. If you answered 1-9 for question 72, what category was this listed under?

**If you answered "10) Not stated" to question 72, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐
3) Service ☐
4) Research & teaching ☐
5) Teaching & service ☐
6) Service & research ☐
7) Research, teaching, & service ☐
8) Not listed under a category ☐
9) Not applicable* ☐

74. Does the institution seek societal advisor roles? (e.g., national advisor, etc.)

1) Yes ☐
2) Not stated ☐

75. If you answered 1) Yes to question 74, what category was this listed under?

**If you answered "2) Not stated" to question 74, please select "9) Not applicable" to this question*

1) Research ☐
2) Teaching ☐

3) Service ☐

4) Research & teaching ☐

5) Teaching & service ☐

6) Service & research ☐

7) Research, teaching, & service ☐

8) Not listed under a category ☐

9) Not applicable* ☐

Appendix C. Conference Papers

While registered as a doctoral student, I socialized by research at the Academy of Management and European Group for Organizational Studies annual conferences. This enabled me to use the valuable feedback received to improve my research ideas and approach.

Past conference presentations

Keeley, A., Ryazanova, O., & Mc Namara, P. (2024) Noise, Noise Everywhere: Mixed Signals from Academic Promotion Decisions. [Oral Presentation], ***Academy of Management Annual Meeting***, Chicago, USA.

Keeley, A., Ryazanova, O., & Mc Namara, P. (2023) Why wasn't I promoted? Exploring the ambiguity of linguistic signals in academic promotion documents. [Oral Presentation], ***Academy of Management Annual Meeting***, Boston, USA.

Keeley, A., & Mc Namara, P. (2023) An exploration of career script awareness within the academic career. [Oral Presentation], ***Academy of Management Annual Meeting***, Boston, USA.

Keeley, A., Ryazanova, O., & Mc Namara, P. (2023) Exploring the credibility of linguistic signals during academic promotions. [Oral Presentation], ***39th European Group on Organization Studies*** *Colloquium*, Cagliari, Italy.

Keeley, A., & Ryazanova, O. (2022) Exploring the heterogeneity of linguistic signals in academic promotion documents. [Oral Presentation], ***38th European Group on Organization Studies Colloquium***, Vienna, Austria.

Keeley, A., Ryazanova, O., & Mc Namara, P. (2020) Teaching capabilities of doctoral graduates: PhD learning outcomes and labor market expectations. [Oral Presentation], ***Academy of Management Annual Meeting***, Virtual.