

# CREATIVITY AND TEACHING IDENTITY

Problem solving and inventiveness as mediating factors

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Doctor of Education

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## Aston University

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### Abstract

The aim in this study has been to explore the role of creativity in the development and maintenance of teaching identity in higher education. The objective is to develop insights capable of improving the creative capacity of universities through teaching.

The rationale is three-fold; 1) Identity is an underexplored and potentially valuable area of creativity research capable of addressing some areas of methodological and interpretive contention (Glăveanu and Tanggaard, 2014); 2) Teaching identity is of clear significance in the context of teacher development programmes in higher education, is widely considered in the literature, but has identified scope for clearer understanding and definition particularly in the context of higher education (Zambales, 2018); and 3) With ontologies of creativity and related lexical similarity structures being well established (Jordanous and Keller, 2013), the identification of a rich secondary data source capable of more detailed analysis presented a significant opportunity for meaningful enquiry.

Applications for professional recognition through the Advance HE accredited Research Inspired Teaching Excellence Scheme (RITE) were collated, and a series of semi-structured interviews completed with research participants. RITE applications and transcribed interviews were then subject to thematic and sentiment analysis applying a grounded theory methodological approach (Birks and Mills, 2015; Glaser & Strauss, 1967).

The conclusions of the study highlight clear domains of creative activity in teaching, but significant complexity related to perceptions of teaching and the experience of creativity in practice. Noting the tendency for creativity to be perceived as oppositional to or in tension with other professional perspectives, the study highlights that the relationship between creative self-efficacy and creative agency can diverge significantly and be highly individualised.

The theoretical framework developed through this study has been applied in implementing updates to Aston's Postgraduate Certificate in Learning and Teaching in Higher Education.

### Key words

Creativity, teaching identity, professional identity, creative efficacy, creative agency, creative metacognition.

To Marcus. Thank you for the music.

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## Chapter 1 - Introduction

*“What a fool I was to think that I had mastered this occult act—harder to divine than tea leaves and impossible for mortals to do even passably well!” (Palmer, 1998).*

### Introduction

Teaching and learning will always be inherently problematic endeavours. Diverse in practice but all ultimately defined by the attempted development, realisation, and authentication of new (novel) capability, the most basic definition of creativity being the act of problem solving, both learning and teaching are therefore inherently, and arguably foundational, creative activities (incorporating aspects of potential developmental relevance for all concurrent and future acts of creativity).

There has been increasing interest in, and focus on, creativity in education for decades (E.g. Torrance, E. P., 1963; Sternberg & Williams, 1996; Beghetto & Kaufman, 2014). Nevertheless, creativity being inherent in education does not imply sufficiency, much less a surfeit, of required creative capacity. Despite concerted efforts, continuing issues of educational access, equality, and outcomes alone account for a definable creativity deficit in educational systems (OECD, 2018). The teaching profession more widely being described as in crisis (UN Today, 2024; UNESCO, 2023; Jayman et al, 2022; UNICEF, UNESCO, and World Bank, 2021; World Bank, 2021c), further highlights a wider range of unresolved and in many cases persistent and worsening problems seeking creative resolution. That creativity itself has been associated with educational crisis for over two decades (Kim, 2011), is also a matter worthy of considerable concern.

Whilst not without some contention regarding the discourse of crisis (Rikowski, 2021), education systems nevertheless unquestionably confront almost universal combinations of systemic challenges. In addition to issues of access and outcomes, teacher recruitment and retention (OECD, 2021; UIS, 2016; Ingersoll & Strong, 2011), occupational health and staff wellbeing (Teaching Scotland, 2023; McGrath-Champ et al., 2022; Kim & Lee, 2022; OECD, 2019b; Schonfeld & Bianchi, 2016), and financial sustainability (Education Commission, 2016; World Bank, 2021b), continue to defy all attempts at effective resolution.

Coincident with an increasingly dynamic and accelerating pace of societal, socio-economic, environmental, techno-industrial, and geopolitical changes, there is, consequently, an increasing uncertainty about pedagogical convention, educational strategy, and future direction (Durlak et al., 2011; Hattie, 2008). What should be taught, how this should be taught, the purpose of

learning, and what it means to teach, are increasingly less certain, for all levels and contexts of education. Despite decades of research and application of new pedagogical approaches, the demand for creativity in education continues to outstrip supply and there are indications of this deficit widening rather than narrowing.

The implications for the professional development of teachers, teaching practice, and the teaching profession, are profound. Defined at least in part by convention, whilst teaching has a history of continual adaptation and disciplinary change, current challenges facing educational systems and processes being so significant, there is an evident and significant increasing value associated with adaptability and innovation in education in general, and higher education in particular (The Open University, 2022; Harvard University, 2022; OECD, 2019d). The problems confronting educational systems being as acute as they are, whilst creativity in educational thinking and educational practice has been of identified significance for a long time, they have never been more important.

Acknowledging the plurality of practice broadly associated with teaching and conceptualising creativity in the broadest but also most basic terms (the simple coincidence of deviation from convention and realised value; Runco and Jaeger, 2012), this study is designed appreciating that teachers will all be creative in their teaching, in different ways, for different reasons, at different times, and at different stages of their careers. The study has also been developed recognising that teaching involves varying degrees of autonomy, control, and both affordance for and necessity of innovation, and that opportunity for significant influence over wider systems and organisational approaches in teaching will always tend towards the limited. Nevertheless, the study also recognises that significant numbers of those in positions more capable of wider influence in educational institutions will a) Have experienced learning and being taught, and b) Frequently have held teaching positions during their career and completed teaching qualifications. Fundamentally, irrespective of the current correlation between training for teaching and creativity in practice, how teachers become teachers clearly has wider and lasting significance for creativity in educational systems.

Factors inhibiting creativity in education are readily identifiable. The steps required to increase creativity, or to realise creativity sufficient to resolve specific problems, by definition lie in the realm of the as yet unknown. Effort invested seeking to develop better understanding of how, why, where, and when, those who teach do things differently, adapt their approach, instigate change, or just find ways of coping that sustain their efforts whilst other do not, is judged to be

interesting, relevant, and potentially strategically significant for teaching, the professional development of teachers, and the sustainability and resulting value of educational systems. Related insights, where identified, are also considered potentially significant for the understanding of creativity itself.

This chapter outlines the context and positionality of this study, describes the research aims, and outlines the chapter structure of this thesis.

### Positionality and research philosophy

This study has been developed drawing primarily from two intersectional areas of professional interest and experience: 1) creativity (why and how people do things differently to positive effect), and 2) teaching, including university professional development programmes for learning and teaching, teaching practice, and processes of professional recognition for teaching. My career and roles affording considerable opportunity for insight into the professional journeys, practices, and experiences of teachers, a vested interest in, and immersive experience of, teaching, is acknowledged as a key factor in both the focus of, and approach to, this research.

My interest in creativity stems from my disciplinary grounding in music and the arts. Teaching “creative” subjects including music composition and sound art for nearly twenty years, my experience as a teacher and gradual move into wider university roles and related adjustments of approach and necessary development of new competencies led to an increasing interest in the transferability of expertise and the limits of domain specific knowledge. Researching and publishing on various aspects of creativity in education (E.g., Wilson & Brown, 2012; Wilson & Brown, 2013; Wilson, et al. 2017; Wilson, 2019; Wilson, 2020), I have sought to advocate for and elevate the focus on creativity through everything I do. Including experience of teaching creativity to undergraduate students, postgraduate students, and academic and professional staff, I approach this study having experienced first-hand how quickly new ways of thinking can be inaugurated, how creativity can be elevated, and, reflecting on my experience of teaching music composition and classroom teaching, consider creative music and creative teaching to be equal tautologies. Creativity being, by definition, beneficial (it is creative only with utility), the coincidence of applied new ideas with successful outcome in teaching and learning is both routine, but also subject to significant and dogmatically persistent constraints (Runco and Jaeger, 2012).

Having occupied the professional role of teacher for approaching three decades and been directly involved in supporting the professional development of teachers and teaching for a significant proportion of my career, I have long been aware of the diversity and distinctiveness of individual experience and the journeys teachers take; concerned both by unfortunate patterns of early career enthusiasm and energy being eroded over time, but also fascinated by the stories of those that thrive, become invested, and manage to sustain meaning in their teaching through continual adaptation and change.

Whilst detailed consideration of research ethics is described in the context of research methodology in chapter 3, it is important from the outset to acknowledge the problem of perspective and objectivity in this study. I appreciate the need to account for a deep personal connection with teaching in the study in overall terms, that arguably extends towards the idealistic. Notwithstanding, the study is positioned recognising potential for value in the application of first-hand experience in research design and operation. I am a teacher. I know what it means to teach. I am better positioned than most to be able to identify and interpret nuance and detail in aspects relevant to this study, whilst aware and pragmatic about the implications for research design and approaches to the interpretation of research data. Whilst I do approach this study with experience of behaviours and traits of teachers I may associate with or have seen evidence of resulting effectiveness for students, I also approach this study having experienced clear evidence of effectiveness in teaching taking many different forms. I am entirely open to being wrong in any assumptions I may bring to the study and am by no means quixotic in my perceptions or conceptions of teaching or the teaching profession. Whilst I have always been a teacher and am determined in this study to contribute something meaningful to the teaching profession, I am by no means ideologically clouded in my perspective; if anything, I need to guard more against cynicism than idealism. I continue to believe strongly in the value and importance of education but am experienced enough to appreciate the shortcomings of lived experience as a university teacher. On balance, I consider myself more than capable of approaching this study in a critical if not entirely objective way.

With respect to the philosophy of educational research, this study has been developed with the understanding that insight is relevant irrespective of impact but recognising that new ideas supporting change that improves systems, practice, and/or outcomes is imperative in any resource limited context. I believe research should be purposeful and embrace the responsibility of an educational doctorate to embed application of outcomes within the research design. I am

acutely aware of the paradox of objectivity, committed to ethical and evidence-based methodological approaches, and believe that the purpose of all research should be to make things better.

As a researcher grounded in social constructivism, I also approach this study with the perspective that knowledge is not an objective entity to be discovered, but rather a construct shaped by social interactions, cultural contexts, and individual experiences, to be interpreted. Theoretically foundational to teaching qualifications at Aston, I experience knowledge and understanding as being constructed through engagement with environment and others. Therefore, the philosophical stance of this study is that educational research should explore the dynamic processes through which knowledge is co-constructed, acknowledging the role of dialogue, collaboration, and the dynamics of individual and organisational context. I know my experience is ultimately unique, but also that everybody else's is too. I also know that we share experiences and that there is commonality at least as much as there is differentiation in our perceptions and experiences.

I am a sceptic, contrarian by nature, but have wisdom enough through experience to have developed a good level of understanding regarding the differentiation between my perspective and that of others. This study is therefore grounded in interpretivist and constructivist research paradigms, very much recognising the plurality of meanings individuals or groups ascribe to their actions and environments.

Better understanding of university teaching experience and how teachers solve problems, adapt, and apply and experience creativity in their practice is judged to have potential to inform more effective approaches to professional development of teaching, university structures and policies for teaching, and teaching practice. This thesis having developed from a starting point that conceived of creativity in teaching as being significant, its completion reaffirms this position.

### The research problem

The research problem underpinning this study is primarily one of seeking to better understand the future needs of teachers in universities and how creativity in teaching practice can be most effectively sponsored and cultivated. The factors underpinning this enquiry are complex and multifaceted and intersect with questions of relevance more generally to teaching and learning, educational systems, operation, and design.

Considering the wider context of any study related to university education, given profound global technological, socio-economic, political, environmental, and industrial instability, education is almost universally recognised as one of, if not the, most significant mechanisms by which to realise an effective response. Characterised starkly as “fundamental to creating a peaceful and prosperous world” within the United Nations sustainable development goals (UN, 2022), associated work by the Educational, Scientific and Cultural Organization (UNESCO), for example, includes amongst a group of ten overall targets, the ambition, no less, of ensuring by 2030 that all learners “acquire the knowledge and skills needed to promote [...] sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture’s contribution to sustainable development.” The Doomsday Clock of the Bulletin of the Atomic Scientists nudging gradually towards midnight (Mecklin, 2023) representing a “time of unprecedented danger”, much is being invested in the notion that education can provide an effective response to unprecedented uncertainty and risk.

Rising costs of education and the increasing debt burden on students, especially in higher education, further threaten the economic sustainability of global education systems. According to Bloom (2021), the financing models for universities, particularly in developing countries, are unsustainable in the long term. In the specific national context of this research study, the OfS (Office for Students), the regulating body for higher education in England, has projected that 72% of universities could be operating in financial deficit within the next few years (OfS, 2024).

The Teaching Excellence and Student Outcomes Framework (TEF; UK Gov., 2016) driving increasing parity of esteem between research and teaching in measures of institutional standing in the UK, all universities therefore have a strategic interest in assuring the professionalisation of teaching practice, supporting related frameworks for teacher development, and mechanisms for monitoring, assuring, and enhancing teaching quality. As evident by the remarkable success of National Teaching Fellowship awardees (Advance HE, 2022) and programmes consistently scoring highly in measures of student satisfaction, attainment, graduate destinations, and other teaching excellence metrics, for example, many thrive in academia and particularly so in their teaching to the measurable benefit of their students. Nevertheless, despite increased support for teaching and a workforce more professionalised than ever, there is clear evidence that teaching experience in universities can be extremely challenging. In part a consequence of increasing accountability and scrutiny—including more active involvement of students in

evaluating the quality of teaching—there is a consequent increase in the pressure experienced by teaching staff. "Excessive audit and inspection" amongst a range of concerns leading to significant increases in stress and anxiety (UCU, 2022a), the wellbeing of teaching staff is a serious and worsening problem despite being an active concern in UK higher education for over a decade (Ray and Kinman, 2021).

"...there appeared to be a perceived mismatch between the demands of, and the returns to, teaching, which may be related to the presence of common myths and stereotypes related to teaching and propagated in the media that are not always grounded in objective reality." (Wang and Houston, 2021)

With increasing problems of professional attrition as reflected in most education sectors globally (Bryant et al, 2023), it has even been reported that 60% of university staff in the UK plan to leave the profession in the short to medium term (UCU, 2022b). The value associated with the quality of educational practice has never been greater, yet student mental health in study continues to worsen (Pollard et al, 2021), and there is clear evidence that teaching and learning in universities can be challenging for all concerned.

"...regardless of the effects of demographic variables such as gender, age, year of study or fields of study, the prospective teachers' interest in teaching can be identified through three distinctly different profiles: high, medium, and low interest in teaching. Results of the present study also demonstrate that the profiles of prospective teachers' interest in teaching were significantly related to their career choice satisfaction and professional plans." (Eren, 2012)

Despite evidently suboptimal conditions, this study is developed recognising that significant numbers nevertheless thrive in teaching, identify in different ways with teaching as a professional identity, realise significant innovation and influence in their practice, or simply manage to cope effectively with problematic conditions. Not specifically seeking to emphasise the exceptional, this research is predicated on the reality that teaching in higher education involves significant problem solving in all contexts and at all stages of a career, and that this aspect of teaching has potential for insights of direct relevance to the systems and processes of teacher development and the structures and models of teaching practice.

Despite a substantial body of research highlighting the importance of creativity in fostering critical thinking, problem-solving, and innovation, there remains a persistent gap between these findings and their overall bearing on educational strategies and practice. Academic studies have consistently shown that creativity enhances student engagement and prepares learners for the complexities of the modern world (Runco, 2014). However, many educational systems continue to prioritise traditional metrics of success, such as through standardised testing and rote

memorisation, which have been demonstrated to stifle creative thinking (Beghetto and Kaufman, 2014). There remains an evident tension between the importance of convention and mastery, and the value of novelty and innovation in general.

This discrepancy may be attributed to systemic challenges, including curriculum constraints, deficiencies in teacher training and continuing professional development, and a lack of resources to support creative initiatives. As a result, the potential benefits of creativity research are often underutilised in educational settings, limiting the development of teachers and their learners' full potential and preparedness for future challenges. Bridging this gap requires a paradigm shift that values creativity as a core component of educational success, alongside traditional academic achievements.

The challenge of creativity in universities is a complex issue influenced by various factors, including educational structures, cultural expectations, and institutional policies. Whilst there is clear evidence that encouraging interdisciplinary collaboration and fostering a supportive environment can enhance creativity in universities (Kandiko, 2012), and an increasing application of teaching methods which focus on problem-solving and critical thinking which are crucial for developing creativity (Livingston, 2010), universities often struggle to integrate creativity into curriculum frameworks and assessment regimes due to a perceived elusive nature of creativity itself (Kleiman, 2008), the persistence of models which still tend to focus on the transmission of knowledge rather than fostering the ability to apply this knowledge creatively (Papaleontiou-Louca et al., 2014), academic structures, managerialism, and bureaucratic policies (Clegg, 2008), whilst a focus on measurable outputs like publication counts and grant values can overshadow genuine creative efforts (Heaton, 2005). Ultimately, the pressure of convention can inhibit creativity, as students and educators are often encouraged to produce "acceptable" outcomes rather than exploring novel ideas (Tolliver, 1985), with creativity constrained by existing social and educational norms (Zhan-jun, 2008).

The relationship between teaching and research has been widely studied yet remains complex. Some research indicates a mutual reinforcement between research activities and teaching effectiveness (Rios-Delgado & Vivanco-Aquino, 2023; Suyo-Vega et al., 2022; Gros et al., 2020), whilst others highlight an incompatibility where the emphasis on research can detract from teaching quality (Salaices Sánchez, 2022).

Research regarding teaching identity in higher education and what are broadly categorised as the three key phases of development—'Taking on the teacher role', 'Settling into the teacher

role', 'Finding a new role as a teacher' (Trautwein, 2018)—is relatively limited, particularly so with respect to UK universities. There is an acknowledged lack of a consensual definition (Mahmoudi-Gahrouei et al., 2016, in Rodriguez and Mogarro, 2019), and identified scope for clearer understanding (Zembylas, 2018). Research nevertheless indicates close correlation between creative self-efficacy and innovative teaching behaviours (Cayirdag, 2017), there are a wide range of tested protocols, scales, and theoretical frameworks (E.g., Liu & Wang, 2019; Li et al. 2017), established ontologies and related lexical similarity structures for creativity (Jordanous and Keller, 2013), and definitions regarding teaching identity (Rodriguez and Mogarro, 2019), capable of informing approaches to analysis and interpretation. Synergistically, whilst reflecting similar methodological and interpretive contention in the literature, identity has been identified as an underexplored and potentially valuable direction for creativity research itself (Glăveanu and Tanggaard, 2014).

The context of this study is therefore one marked by an accelerating pace of change, consequent increase in the significance associated with creativity as a graduate attribute, and associated importance of creativity in teaching to develop pedagogical approaches capable of mediating effective responses to increasing uncertainty about the future. There is, therefore, scope for, and evident potential value in, better understanding of where creativity in teaching is and how creativity can be fostered and sustained in teaching. Whilst this has arguably been the case for the entire history of human ingenuity and invention, there is a strong case to make that the problems requiring creative resolution now are more acute and more unpredictable than at any point in human history. Consequently, significant urgency is associated with deliberations of future needs regarding human capacities and the mechanisms for enabling and developing these.

Mentorship and professional development initiatives have been demonstrated to help academics navigate the complexities of research and teaching (Holness, 2022), whilst continuous professional development, wider structures for fostering pedagogical innovation, and training programmes focused on developing teaching skills, curriculum design, and assessment methods, have been demonstrated to enhance the quality of education (Maphosa & Mudzielwana, 2014). The wider evidence nevertheless indicates that there remains a persistent and potentially growing gap between design and reality. University teaching has never had more scrutiny and attention, or level of resource invested in developing, professionalising, and assuring quality of practice and outcomes, yet, amongst a range of wider problems of student

experience and outcomes, recruitment of teachers is challenging almost everywhere on earth, and most of those teaching in universities in the UK want to leave the profession. On balance, current approaches to the professional development of teachers are clearly not sufficient in terms of sponsoring sustainability in the university teaching profession, or in engendering or empowering creativity to an adequate extent.

## Research aims

Having described how teaching and learning can be interpreted as definably creative processes, and how identity can be a factor of significance both in professional experience and practice, the aim in this research is, ultimately, to construct a theoretical framework for creativity and teaching identity in higher education. Primarily concerned with understanding the teacher-teaching-creativity dynamic, the objective is to better understand, and therefore to inform better development of, creative capacity in teaching in higher education.

Considering teaching and learning as intersectional and transactionally creative acts, this research is ultimately focused on interrogating this premise, exploring problem solving and inventiveness in teaching, and how this relates to the experience and practice of teaching. How and why some navigate problematic professional experiences in ways that lead to generation of more effective and novel solutions, and how despite innumerable challenges significant numbers nevertheless associate teaching as a sustaining and meaningful aspect of their professional identity, have significance in and of themselves, and particularly so in the context of teacher development.

Recognising the plurality of practices, activities and experiences, and presence of novelty, utility and meaning in all successful teaching and learning, I have consequently developed a particular interest in teaching identities, how these develop, evolve, and are maintained over time, and the mediating role that creativity plays in the realisation of educational practice. Recognising that teaching in higher education is both challenging and inherently problematic, the focus of this research is on how people become teachers, the role that creativity plays in these journeys and related re/construction of professional identity, and, correspondingly, what these dynamics may have to reveal about creativity itself.

Underlying questions framing the nature of the problem in this study and the underlying aims for the research are therefore as follows:

- What/where/when is creativity in teaching?

- What forms does creativity take in teaching?
- When are teachers creative?
- What are the key mediating factors?
- What are the determining factors enabling creativity in teaching?
- Are/why are some teachers more creative than others?
- Is teaching identity a factor of significance?
- Which of those factors can be replicated and/or adapted for wider benefit?
- Can we apply insight to the productive enhancement of professional development for teaching?
- Are there veils that can be lifted or scaffolds that can be adjusted or currently missing and capable of being applied?

The key aims are, therefore, to develop and apply a methodological framework to the analysis and interpretation of relevant research data about teaching practice and experience, and to locate and interpret relevant insights through such analysis. This study ultimately intends to explore how creativity influences the construction and expression of teaching identities, to investigate the ways in which educators integrate creative approaches into their teaching practices, and what these approaches, in turn, might reveal about creativity more generally and in terms of domain specificity.

This study begins with, and stems from, a provisional model of creativity in teaching based on interpretation of lived experience and evidence from the wider literature. Having witnessed first-hand how teaching can become both exciting, energising, and affirmative, but also burdensome, frustrating, and marginalised as a peripheral concern, this study is designed both to challenge my own assumptions about the journeys teachers take, and to consider how creativity can be more effectively developed in teaching at all stages of a teacher's journey.

Different patterns of teacher development and professional journeys are evident:

- Start with uncertainty, models convention, develops confidence/agency, gradually introduces and sustains new ideas.
- Start with uncertainty (including what to model), quickly introduces new ideas and new approaches, develops confidence/agency.
- Start with support and professional development, develops confidence, quickly introduces new ideas.
- Start with support and professional development, develops confidence, introduces some new ideas, wrestles with competing responsibilities, drifts into more passive replication.
- Drift in on the margins, teach in small parts of the curriculum as an adjunct to core professional activity.

The key aim in this study is to interrogate the legitimacy of these perceived patterns, and to test assumptions about the correlation between mediating variables including teachers' perceptions

of self in teaching and as teachers, and, ultimately, to develop a theoretical framework for creativity in teaching capable of positive application in the transformation of both teacher development programmes and wider structures supporting teaching practice.

This study addresses the broader implications of fostering creativity in teaching, considering its impact on curriculum design, student engagement, and institutional culture. Through a combination of approaches, this research endeavours to interpret the nuanced experiences of educators as they negotiate the challenges and opportunities of teaching in higher education. By doing so, it aims to contribute to the development of pedagogical frameworks that support creative teaching practices ultimately enhancing the quality and effectiveness of higher education.

### Significance of the study

Having most direct potential relevance for university teacher development programmes, the structures and frameworks maintained to sustain teaching excellence, and the supply of creativity in higher education, from a research impact perspective, the significance of the study is ultimately determinable by the accessibility, adaptability, and applicability, of related insights and resulting theoretical framework.

### Scope and limitations

Methodological approaches are described in Chapter 3. Data collection and participant details are described fully in Chapter 4 of this thesis.

With respect to the scope and limitations of this study, analysis and approaches to interpretation have been applied cognisant of sample size, diversity, representativeness, and the limits of generalisability. Nevertheless, whilst research participant selection was based exclusively at Aston, experience of work in other universities is reflected in the data, and whilst not including representation from all possible perspectives and experiences, there is clear diversity evident in experiences and context in the research data.

Research methodology and approaches to analysis and interpretation are also designed fully acknowledging other potential limitations in the data. Noting, for example, established professional relationships with all research participants prior to the study, the nature and scope of data is treated cautiously throughout.

Finally, the study has also been managed acknowledging the perspective and potential bias of the researcher. The study has been developed framed by the fundamental understanding that some aspects of teaching are common to all, whilst others are distinctive to every individual.

### Conclusions and summary

Existing ideas about how to structure and organise educational systems, how to approach teaching and the development of teachers, and what education is orientated towards, may be misaligned with respect to future needs. Change is therefore necessary, and the value of new ideas is at a premium. Whatever teaching is, this study is situated recognising that for at least the foreseeable future, it will be human beings making related decisions that matter. Given the burden of expectation placed on teaching to resolve serious and worsening societal problems, where new ideas come from and how these are applied in teaching, have never been more pertinent.

This study is positioned in an area of intersectional contentions (what creativity is, what teaching is, how teaching is/can be/needs to be more creative), but also in one of defined strategic urgency and significance. Recognising that scholars of creativity have directly and indirectly sought to influence educational change for decades, the persistence and potentially worsening deficit between creative demand and output within and though education systems does at least frame opportunity for some meaningful reflection.

### Organisation of the thesis

This thesis is structured around seven chapters. The remaining chapters are sequenced as follows:

Chapter 2 – Review of the literature: Chapter 2 explores the literature related to the key theoretical frameworks in this study (creativity, teaching identity) and articulates the research questions aligned with the current state of the research.

Chapter 3 – Research methods: Chapter 3 describes the methodological approach to this study, the implications for and alignment with research philosophy, approaches to data collection and organisation, and formulation of the analytical framework.

Chapter 4 – Data, analysis, and discussion: Chapter 4 describes the analysis of the research data in the context of the research questions of this study.

Chapter 5 – Constructing a theoretical framework for teaching and creativity: Chapter 5 articulates a summary of key findings including further consideration of research limitations, conclusions, and consideration of the implications for future research. The chapter also outlines a resulting conceptual framework and describes the implications for the professional development of teaching in universities and teaching more generally.

Chapter 6 – Application of the theoretical framework: Chapter 6 describes interpretation of the resulting theoretical framework and the application of insights in educational policy, and the professional development of teaching. Description is provided for how the outcomes of this study have informed updates to Aston's Postgraduate Certificate programme in learning and teaching in higher education.

Chapter 7 – Summary and concluding remarks: The final chapter represents a postscript commentary and summarises the key research questions, conclusions, implications, and future risks and possibilities.

## Chapter 2 – Review of the literature

### Introduction

This thesis being focused on the interrelationship of two key conceptual frameworks: teaching identity and creativity, this chapter presents a systematic review of the literature relevant to each area and a summary of implications for methodological approaches and the development of interpretive frameworks. The chapter concludes with description of an initial conceptual framework and revisits research questions in the context of the wider research.

Variations in perception, interpretation, and experience, being in part the focus of this study, the enquiry is developed recognising that whilst teaching identity and creativity are both subject to theoretical contention and debate, teaching nevertheless takes place through quite clearly defined activities and processes, that those who teach in universities routinely face problems, solve problems, experience related professional responsibilities that bear upon conceptions of 'who they are', and that the interrelationships between these variables have at least potential for significance.

Review of the research literature has been undertaken using an open and Boolean approach to library databases using relevant keywords including teaching identity, creativity, as well as 'and/or', moderators and operators, including creative teaching, creative identity, education, and higher education. Sources were also filtered by reviewing Scimago journal ranking (SJR) and h-index. Each publication was then subjected to systematic review to identify relevant journal articles.

For teaching, education, and higher education, key journals identified include the Review of Educational Research (SAGE), Developmental Review (Mosby Inc.), Educational Researcher (SAGE), Educational Research Review (Elsevier), Sociology of Education (SAGE), Review of Research in Education (SAGE), Journal of Vocational Behavior (Academic Press Inc.), Journal of Teacher Education (SAGE), Contemporary Educational Psychology (Academic Press Inc.), Journal of Educational Psychology (American Psychological Association), American Educational Research Journal (SAGE), Journal of Learning Sciences (Routledge), Learning and Instruction (Elsevier), and Educational Evaluation and Policy Analysis (SAGE). For creativity, key journals identified include the Creativity Research Journal (Elsevier), Journal of Creative Behavior (John Wiley & Sons Inc.), Thinking Skills and Creativity (Elsevier BV), Research in Organizational

Behavior (Elsevier), and Organizational Behavior and Humans Decision Processes (Academic Press Inc.).

Specific attention has also been given to consideration of alternative perspectives and the scope of the literature reviewed has extended beyond the shortlisted publications and not been confined to any impact metric.

### Identity theory

Identity theory is deeply rooted in social psychology and sociology. Evolving from various theoretical frameworks and empirical studies including the work of George Gerbert Mead (1934) (Stryke and Burke, 2000), the term was first introduced by Erik Erikson in the 1940s in the context of work focusing on ego and social identity (Blasi, 1988).

Broadly defined as the “meanings that persons attach to the multiple possible roles they typically play in highly differentiated contemporary societies” (Stryke and Burke, 2000), noting Erik Erikson’s distinction between conceptions of self (the ‘I’) and the ‘schemata and dynamics of identity’ (the ‘me’) (Cote and Levine, 2002), identity “refers to either (a) a social category, defined by membership rules and (alleged) characteristic attributes or expected behaviors, or (b) socially distinguishing features that a person takes a special pride in or views as unchangeable but socially consequential (or (a) and (b) at once)” (Fearon, 1999). Identity theory ultimately focussing on how roles and social structures influence the self, social identity theory emphasises group memberships and the impact on emotions and behaviours (Hogg, 2016). The integration of these theories offers a more comprehensive view of identity formation (Stets & Burke, 2000).

Noting Sheldon Stryker’s introduction of the concepts of structural symbolic interactionism and identity salience (Weigert, 1983), Peter Burke and others further developed this work focusing on self-verification and the interplay between personal and social identities (Stryker and Burke, 2000). Elements including self-categorisation theory were also incorporated expanding the focus on how group memberships and social categories influence individual identities (Hornsey, 2008), Stets and Burke (2014) highlighted the bidirectional influence between individuals and their social environments, whilst the significance of personal values was also identified (Hitlin, 2003).

Recognising career-wide ethical and political dimensions (Zembylas, 2018), professional identity is considered ultimately as a dynamic construct (Clarke et al, 2013) capable of being

understood in terms of the “significant stories about an individual that are created and recreated over time” (McClune, 2019). Closely related to issues of emotional attachment and the significance associated with related professional activities or role (Van Lankveld et al, 2016), citing the work of Pillen et al. (2013) and Zhu (2017) in particular, Rodriguez and Mogarro (2019) conclude that the key factor of relevance to professional identity is the relationship between “self, agency, emotions (which act as catalysts for agency), personal values, beliefs, knowledge, skills and efficacy.”

With respect to definitions, Rodriguez and Mogarro’s systematic review of the most significant research studies also highlights how professional identity is considered to be simultaneously “stable and dynamic”, dependent both of societal factors and events (Ballantyne and Grootenboer, 2012; Zhu, 2017; Pillen et al., 2013), “multifaceted” and “changeable” (Beauchamp and Thomas, 2010; Lamote and Engels, 2010), fluid (Lindqvist et al., 2017; Yuan and Lee, 2016), intersubjective (Melville et al., 2013), “chronological”, “historical” and “cultural”, and developed through formation, reformation and negotiation through experience (Chong and Low, 2009; Lim, 2011). Significant themes include agency (Dahlgren and Chiriac, 2009; Schepens et al., 2009), tension (Dang, 2013), beliefs (Gaudelli and Ousley, 2009), and the construction of narratives through interactions (Stenberg, 2010).

Bourdieu's theory of habitus (Bourdieu, 1977) and identity theory intersect in their exploration of how social structures influence individual behaviour and self-conception. Habitus relating more to ingrained habits, skills, and dispositions that individuals acquire through their life experiences, especially through socialisation in a particular cultural or social environment, it is a product of history and shapes the way individuals perceive, think, and act in the world. The concept highlights how social norms and structures become internalized, shaping how people see themselves and their place in the world. Identity theory, particularly as developed within sociology, focuses on how individuals' identities are shaped through interactions with others and the social roles they inhabit. It emphasizes the importance of social roles, self-concept, and the meanings attached to these roles in forming one's identity, constructed through a process of negotiation with societal expectations and personal experiences.

Both theories suggest that identity is not purely personal or individualistic but is deeply influenced by social structures. Habitus can be seen as providing the unconscious, background framework that influences how individuals construct and maintain their identities. It shapes the possibilities and limits of identity formation by predisposing individuals to certain ways of being

and thinking that align with their social environment. Identity theory complements this by focusing on the conscious aspect of identity formation, where individuals navigate their roles and relationships within the constraints and possibilities set by their habitus. Together, they illustrate how identity is both a product of internalised social structures (habitus) and an active process of interaction and negotiation with the social world. In essence, habitus provides the foundational, often subconscious, dispositions that guide identity formation, while identity theory focuses on the active, relational aspects of how these dispositions are expressed, negotiated, and renegotiated, in social contexts.

Inherent in the dynamic nature of identity, there are of course aspects of contention. Argued by some as a somewhat nebulous concept which underrepresents the significance of individuality (Posmes et al, 2005), by others as overlooking the importance of history and culture (Huddy, 2001), of oversimplification of the correlation between high self-esteem and in-group bias and scope for greater nuance in the significance of collective self-esteem in addition to personal self-esteem as moderating factors in terms of group boundaries and social identity (Crocker & Major, 1989), questions have also been raised regarding in-group identification and bias. John Turner, for example, argues that this assumes stability rather than dynamic group identity and that self is not the foundation of cognition rather the consequence of individual in context (Turner et al, 1994). The significance of identity in this study therefore stems from direct experience of teacher development and recognition that irrespective of whether teachers thrive or simply persist, their approach and experience are nevertheless meaningfully, and contextually relevant to who they are, where they are, with whom, and what they do.

### Teaching identity

Teaching can be quite clearly defined in terms of contractual responsibilities and in terms of the aims and outcomes of teaching qualifications. Broadly but consistently described in terms of “an academic activity that requires extensive professional skills and practices, as well as a high level of disciplinary and other contextual expertise” (Mastrokourou et al, 2022), characterised by participation with and responsibility for interactional support and guidance of student learning (Amidon, 1967) involving combinations of defined responsibilities, teaching is, correspondingly, also subject to considerable ambiguity.

Given the increasing diversity of activities broadly defined in terms of teaching, whilst core practices such as delivering a lecture, designing, and leading a seminar, and designing and

marking an assessment, are straightforward to distinguish from the responsibilities of other professional roles, where the limits of teaching responsibilities lie can be more difficult to determine clearly at the margins of student support and in other learning support contexts. Indeed, whilst the maintenance of professional boundaries remains a consistent point of focus in policies relating to provision of personal tutorial support, it is now increasingly routine at Aston and in the wider higher education sector, for students to gain support and to learn from employees and quasi employees notionally in non-teaching roles (E.g. Coach, student mentor, student-skills tutor), on the margins or beyond the boundaries of the core curriculum, and at a measurable distance from the physical classroom.

Relevant to Bourdieu's concept of habitus (Bourdieu, 1977)—the set of embodied dispositions that guide behaviour and thinking, often unconsciously—in the context of teaching, habitus plays a significant role in shaping both teachers' and students' practices, expectations, and interactions within the educational environment. Teachers bring their own habitus into the classroom, which is influenced by their background, education, and professional experiences.

Research by Diane Reay (2006), for example, explores how teachers' habitus affects their teaching styles, interactions with students, and their professional identities. She emphasises that the habitus of teachers can either reproduce or challenge existing social inequalities in education. Research has also shown that students' habitus, influenced by their social class and family background, affects their academic performance and attitudes towards education.

Bourdieu and Passeron's work in "Reproduction in Education, Society, and Culture" (1977), for example, highlights how the education system often reproduces social inequalities by valuing the habitus of the dominant social class. Students from less privileged backgrounds may struggle to succeed in educational environments that do not align with their habitus.

Bourdieu's concept of cultural capital is closely linked to habitus. Referring to the non-financial social assets (like education, intellect, style of speech, and dress) that promote social mobility, teachers may unconsciously favour students who possess cultural capital that aligns with their own habitus or that of the dominant culture in the school. This can affect academic judgement in assessment, classroom dynamics, and overall student success. For example, some studies, such as those by Grenfell and James (1998), examine how teachers' habitus might adapt in the face of educational reforms or changing social conditions. Teachers who are more reflexive about their habitus may be better able to adapt to changes and implement innovative teaching practices that accommodate diverse student backgrounds.

Critics of Bourdieu's concept of habitus argue that it may be too deterministic, suggesting that individuals are overly constrained by their socialisation. However, subsequent researchers have expanded on Bourdieu's ideas, exploring how habitus can change over time and in different contexts. For example, research by Margaret Archer (2000) and others has looked at the role of reflexivity in enabling individuals to critically reflect on their habitus and potentially change it. Habitus is therefore a powerful framework for analysing how social factors shape educational practices and outcomes, has been a central concept in much research on education and teaching.

Teaching has increased in prominence as a professional context in identity research in the past few decades. Significant early research includes Nias & Nias (1989) which explores identity formation in primary school teachers and how experiences and beliefs influence teaching practices, Goodison's edited volume *Studying Teachers' Lives* (1992), which through life history research highlights how personal and professional experiences shapes identities, and Kathy Carter's *The place of story in the study of teaching and teacher education* (1993) which emphasised the importance of storytelling as a means of understanding how teachers' narratives reveal their beliefs and practice.

Other notable examples include James Paul Gee's (2000) article *Identity as an analytic lens for research in education* which considers how identity both shapes and is shaped by educational experiences, Beijaard (et al, 2004) systematic review of teacher identity research, Sachs (2005) which focused specifically on the role of teacher development programmes and the challenging nature of identity development, Rogers (et al, 2008) which discusses the interplay between personal self-development and professional identity in the context of learning to teach, highlighting the reflective processes involved, and Clarke (2009) which identified the contested nature of identity construction in educational settings as well as the significance of ethical and political dimensions.

Yunyun and Ping's bibliometric analysis of teaching identity research (2022) highlights the relative concentration of research publications from particular geographic areas, the significant focus of studies in non-higher education contexts, as well as the extensive co-citation of sources. Significant thematic areas include how teacher identity is defined through relationships with curriculum and students, the performative aspect of teaching and how student desire and institutional roles shape teacher identity (Stillwaggon, 2008), and how teacher educators play a vital role in shaping the quality of teaching (Murray and Kosnik, 2011). Friesen and Besley

(2013), for example, highlight that in the first year of teacher education, both personal and social identity aspects significantly shape teacher identity, and that this development is crucial for designing effective teacher education programmes. Furthermore, contextual circumstances including technological and pedagogical changes in higher education can cause shifts in teacher identities. Academics' experiences with large-class videoconferencing show how role ambiguity and value misalignment impact identity. Successfully negotiating these shifts is vital for maintaining coherent personal and professional narratives (McNaughton & Billot, 2016).

The article "Three Approaches to the Inquiry into Teacher Identity: A Narrative Review Enlightened by Habermas's Human Interests" by Rensijing Liu and Hongbiao Yin explores teacher identity research using Jürgen Habermas's framework of three human interests: technical, practical, and critical, suggesting that these approaches, when integrated, can provide for a comprehensive understanding of teacher identity.

Ultimately, the concept of teacher identity is complex, involving self, agency, emotion, narrative, discourse, reflection, and contextual influences, and understanding these issues is essential for effective teacher education programmes (Beauchamp & Thomas, 2009). Resistance discourse and reflections from student interactions help redefine professional knowledge and teaching practices (Baxter, 2012). Contact with students, staff development programs, and the direct work environment impact the development of a teacher identity. In research-intensive environments that prioritises metrics over teaching, experienced academics can maintain identities that value transformative teaching. This involves managing tensions and synergies between different identity facets and promoting policies that reward teaching excellence (McCune, 2019). Teaching development programmes can significantly impact professional identity of teachers through structured approaches to the phases of identity development such as taking on, settling into, and redefining the teacher role (Trautwein, 2018). Academic communities are essential for empowering university teachers (van Lankveld et al., 2016).

There is a significant concentration of research studies related to teaching identity in educational contexts outside higher education. Perhaps unsurprising that research related to teaching would be focused where most teachers are and teaching is, there is, nevertheless, good reason to be cautious about making assumptions of transferability. Whilst the difference between school, college and university may sometimes be overstated—the principles of good instruction and constructive alignment in the curriculum apply equally at all levels of education—the professional context of teaching in UK universities and particularly at Aston, can vary

significantly, and whereas the majority of the secondary literature involves studies of professional teachers in schools, academic teaching staff at university often have intersecting or even predominant professional identities away from teaching, such as research. Furthermore, it is also the case that teaching in universities can tend towards greater autonomy in teaching practices and curriculum than in other educational contexts, with more scope to configure educational approaches and both the pedagogy and content of the curriculum.

“...almost all personality traits and the ability to regulate and manage emotions predicted the importance of intrinsic value and the social utility value of teaching, whereby neuroticism was a negative predictor of these motives. Also, life-satisfaction was predictive of the importance of both of these motives and the importance of the personal utility value of teaching.” (Pavin Ivanec, T., & Defar, A. (2023).

Research into teaching identity in higher education reveals the importance of developmental programmes, experiences of contextual adaptation, professional learning, and supportive environments in shaping and sustaining teacher identities. These insights are crucial for designing effective educational strategies and policies that promote teaching excellence and professional growth. Whilst teaching identity may be subject to conceptual ambiguity (Martínez-de-la-Hidalga & Villardón-Gallego, 2023), professional identity of university teachers is nevertheless “mainly shaped in and through practice” (Sipuka and Motala, 2023) and a consequence of “identity as sameness (i.e. that which doesn’t change with time), or as selfhood (i.e. that which is confronted by successive challenges)” (Hoveid and Hoveid, 2008). Teaching identity in universities therefore has strategic and operational significance.

### Creativity

As with teaching and identity, creativity is a dynamic theoretical construct (Bohm, 1996; Tornkvist, 1998), subject to continued conceptual uncertainty regarding definitions (Runco & Jaeger, 2012; Plucker & Makel, in Kaufman & Sternberg, 2010), continuing debate about the validity of related assessment instruments (Glăveanu, 2014; Baer, 2014; Malinin, 2019), and a term dogged by the tyranny of generalisation and the persistence of theoretically unsound domain general conceptions (Reiter-Palmon et al, 2012). Creativity is contextual, subject to dynamic conditions regarding the ‘Person, Process, Product, and Press’ (Rhodes, 1961), or the position at any given moment with respect to a domain (the active ‘cultural matrix of information’) in terms of systems, the individual and their affordance for generation of novelty, and the role of gatekeepers and systems of reception (Csikszentmihalyi, 1988; 2014).

Nevertheless, whilst creativity remains challenging to define given the necessary domain specificity of interpretation and consequent challenge of generalisability, it remains paradoxically simple to recognise in terms of the “relative costs and benefits of contrarianism” (Runco & Jaeger, 2012 citing Barron, 1955; Stein, 1953), or presence of a synergy between endeavour and subsequent recognition and appreciation (Bateman, 1972), perceived novelty and utility (Beghetto in Kaufman & Sternberg, 2010), within an identifiable and defined domain (Kaufman et al, 2009).

Whilst dynamic and contextual, creativity is simply a process of problem solving; always on a domain centred continuum (McWilliam & Dawson, 2008), following a general societal bell curve in terms of frequency and significance from the routine and every day (mini and little-c) to the professional and exceptional (Pro-c and Big-C) (Kaufman and Beghetto, 2009). Being defined in part by the recognition of utility, creativity is always understandable; it would not be *creative* if it were not.

The study of creativity has evolved significantly over the decades, with foundational research contributing to the understanding of processes, traits, and environments, that foster creative thinking. Whilst there are important examples of influential research in the early 20<sup>th</sup> century including Graham Wallas’ four-stage model of creativity (1926) and Lev Vygotsky’s sociocultural theory and perspective of creativity as a social process (2004), J.P. Guilford's psychometric work on divergent and convergent thinking laid the foundational groundwork for creativity research (1950, 1967) and established that creativity involves divergent thinking. E. Paul Torrance (1966, 1988) developed Guilford’s ideas further and established the Torrance Tests of Creative Thinking (TTCT), which became a widely used tool for assessing creativity. His work established the importance of fluency, flexibility, originality, and elaboration in creative thought, in conjunction with Guilford’s focus on convergent and divergent thinking.

Developmental and sociocultural perspectives were subsequently explored. Important work includes Howard Gardner’s theory of multiple intelligences (1983) which challenged the traditional view of intelligence and highlighted the role of different cognitive abilities, including those related to creativity. Teresa Amabile's componential model of creativity (1983, 1986) focused on the interplay between intrinsic motivation, domain-relevant skills, and creative thinking processes. She argued that creativity is more likely to flourish when individuals are intrinsically motivated. Robert Sternberg’s investment theory of creativity suggested that

creative individuals "buy low and sell high" in the realm of ideas, meaning they pursue unconventional ideas that have potential value (Sternberg & Lubart, 1991).

Mihalyi Csikszentmihalyi's work in cognitive psychology (1990, 1996) introduced the concept of "flow states", increased the focus on creative experience, and developed theoretical frameworks about the interaction between individual creativity and surrounding environment. Further extending the focus on social and cultural influence factors first posited by Vygotsky, Csikszentmihalyi's 'systems' model posits that creativity arises from the interaction between an individual, their domain (such as science or art), and the field (the social and cultural environment).

Work by Amabile (1997, 1998) and others including Keith Sawyer (2003, 2007) extended the focus on organisational and applied creativity. Specifically relevant for teaching, Amabile's work on organizational creativity highlighted the role of workplace environments and management practices in fostering or hindering creative output. Sawyer's work emphasised collaborative creativity and the importance of group dynamics and interaction in creative processes.

As highlighted in the first chapter of this thesis, there is a considerable body of research regarding creativity in the workplace and innovative work behaviours dating back to the 1950s. Largely influenced by early psychological studies on individual creativity (Guilford, 1950), whilst early research focused on personality traits that foster creative potential, with an emphasis on divergent thinking, by the 1980s and 1990s, research began emphasising the organisational context, recognising that creativity was not solely an individual trait but also a product of environmental factors. Amabile's Componential Theory of Creativity, for example (Amabile, 1988), highlighted the role of intrinsic motivation, domain-relevant skills, and the social environment in fostering creativity. This approach shifted attention to the workplace culture, leadership styles, and processes that facilitate innovative behaviour (Oldham & Cummings, 1996). The concept of innovative work behaviour (IWB) emerged in the 1990s, defined as employee behaviours that contribute to the generation, promotion, and realisation of new ideas (Janssen, 2000). Researchers focused on understanding how both individual and contextual factors—such as leadership support, job autonomy, and organisational climate—affect innovative work behaviours (Scott & Bruce, 1994). By integrating the study of creativity with practical applications, such as problem-solving and innovation in business processes, researchers highlighted the complex interplay between employees and their environments.

Currently, research into workplace creativity and innovative behaviours has become interdisciplinary, incorporating insights from psychology, management, and sociology. Topics such as team creativity, leadership influence, and digital transformation are prominent in contemporary research. Scholars are interested in how leadership, work environments, and digital tools either facilitate or hinder creative performance and innovation (Anderson et al., 2014). Recent studies also stress the importance of psychological safety, employee well-being, and inclusivity in fostering creativity (Edmondson & Lei, 2014). Additionally, attention has turned to the effects of remote work and technological advancements on innovation and creativity, with mixed outcomes—some studies indicate that remote work limits spontaneous collaboration, while others suggest that it enhances creativity through increased flexibility (Yang et al., 2021).

Biological and neurological research into creativity has also been significant. Whilst not directly relevant to this study, increasing understanding of brain function has potential to intersect with psychological, cognitive, organisational, and applied creativity research. Sperry and Gazziniga's research on split-brain patients (1968) provided insights into the lateralisation of brain functions, including those related to creativity nearly fifty years ago. Arne Dietrich (2004, 2007) proposed the "transient hypofrontality hypothesis," suggesting that reduced activity in the prefrontal cortex can lead to heightened creativity by allowing more spontaneous and less constrained thinking.

With respect to research into the relationship between creativity and identity and how individual and social identities influence creative processes and outcomes, this body of work spans various disciplines, including psychology, sociology, and organisational behaviour, highlighting the complex interplay between identity formation and creative expression. Studies have shown that individuals who actively explore and develop their personal identities tend to exhibit higher creative potential and accomplishments. Information-seeking styles and personal identity emphasis are significant predictors of creativity (Dollinger et al., 2005). Social identity perspectives also suggests that team identification and leader inspirational motivation can enhance employee creativity. Team identification leads to greater creative performance, mediated by individual creative effort, and is further enhanced by leader prototypicality (Hirst et al., 2009).

Possessing multiple social identities is also associated with greater cognitive flexibility, which enhances creativity. Individuals with multiple identities show increased fluency and originality in creative tasks (Steffens et al., 2016). The process of managing dual identities, particularly in cultural adaptation, can also foster creativity. This involves switching between cognitive

strategies, integrating diverse ideas, and broadening self-definitions (Gołowska & Crisp, 2014). The relationship between creativity, cognition, and motivation, remain significant areas of neuroscientific research (Khalil et al, 2019).

Creative workers often navigate identity tensions between artistic self-expression and business demands. Effective management of these tensions involves strategies that promote both differentiation and integration of creative and business identities (Gotsi et al., 2010). Creative personal identity and self-efficacy are critical in fostering creativity at work. Individuals with strong creative identities tend to exhibit higher creativity, especially when they integrate non-work experiences to solve work-related problems (Jaussi et al., 2007).

Research highlights the integral role of identity in fostering creativity across various contexts. The exploration and integration of personal and social identities significantly contribute to creative processes and outcomes, emphasising the need for supportive environments that nurture diverse identities.

### Creativity in teaching and learning

Research in creativity in education has grown significantly in the past 25 years. Mark A. Runco and Robert S. Albert's *Theories of Creativity* (1990) being widely influential, Arthur Cropley's *Creativity in Education & learning: A Guide for Teachers and Educators* (2001) also stimulated significant growth in related research.

A systematic review of the literature by Cremin and Chappell (2021) examined empirical studies on creative pedagogies from 1990 to 2018. The review identified distinct pedagogical approaches with validated evidence of positive impact on creativity in students. Furthermore, Sale (2015) described an evidence-based framework for creative teaching, highlighting the evident role of teacher motivation, Scott (et al, 2004), concluded gains in creative performance across a range of studies as legitimate, Tierney & Farmer (2011) highlighted how research data also incorporates nuance, with substantiated evidence of positive impact but also potential for explicit requirements for creativity to prove counterproductive, Vally (et al., 2019) highlighted the value of domain-general creativity training, whilst Gesel et al. (2020) completed a meta-analysis of data from multiple sources indicating significant correlation between professional development and teacher creative self-efficacy.

Research on creativity and learning explores how creative thinking contributes to educational success and cognitive development. The literature indicates that creativity plays a significant

role in enhancing problem-solving skills, student engagement, and overall learning effectiveness. Creativity is recognised to enhance cognitive functions like divergent thinking, flexibility, and problem-solving. According to Runco (2014), creativity encourages students to explore multiple solutions, which leads to improved critical thinking and adaptability. Craft (2005) highlights that fostering creativity in the classroom can lead to an increased sense of curiosity, enabling deeper learning experiences.

Creating environments that support creativity is essential for effective learning. Amabile (1996) posits that creativity flourishes in environments that provide autonomy, respect, and opportunities for self-directed learning. Teachers play a key role in fostering creativity by using open-ended questions, encouraging collaboration, and creating a space where students feel comfortable experimenting and making mistakes (Sawyer, 2011).

Research indicates that creativity is positively correlated with academic achievement. Sternberg and Williams (1996) suggest that integrating creative activities in school curricula leads to better academic outcomes because students who engage in creative processes develop improved comprehension and retention of information. Kim (2011) also notes that creativity is linked to higher motivation, which can have a significant impact on academic success.

Modern psychology and neuroscience have significantly advanced our understanding of learning as a creative process, offering insights into how creativity emerges and can be fostered through cognitive, emotional, and neurological mechanisms. Recent research emphasises the integration of creative thinking with learning, exploring the brain regions involved and the cognitive processes that underpin creativity in educational contexts.

Creative learning involves both convergent and divergent thinking processes. Convergent thinking refers to generating the single best solution to a problem, while divergent thinking involves generating multiple, novel ideas. Guilford (1967) originally laid the groundwork for these concepts, and recent studies have expanded on them. Beaty et al. (2016) found that creative thinking is associated with enhanced functional connectivity between the default mode network (DMN), executive control network (ECN), and salience network, highlighting the interplay between spontaneous and controlled cognitive processes during learning.

The Default Mode Network (DMN) is critically involved in creative learning, as it is active during mind-wandering, imagination, and memory consolidation. Raichle (2015) noted that the DMN plays a role in integrating information from various sources, which can lead to creative insights

during learning. This integration is important for linking previous knowledge to new ideas, a core component of creativity.

Emotions significantly impact the creative learning process. Fredrickson's (2001) broaden-and-build theory suggests that positive emotions broaden individuals' cognitive repertoire, leading to increased creativity. Neuroscientific research by Immordino-Yang and Damasio (2007) has shown that emotional engagement is crucial for meaningful learning, with emotional centres in the brain closely linked to cognitive processes that foster creative insights.

Neuroplasticity, or the brain's ability to rewire itself, is central to learning as a creative process. According to Doidge (2007), engaging in creative tasks leads to structural changes in the brain, enhancing neuroplasticity. This process is particularly active in areas like the prefrontal cortex, which is involved in higher-order cognitive functions such as planning and problem-solving, both of which are essential for creativity.

Vygotsky's (1978) sociocultural theory underscores the importance of social interaction and the learning environment in the creative process. More recent studies, such as that by Sawyer (2012), support the idea that collaboration and group dynamics stimulate creative thinking by providing diverse perspectives and problem-solving approaches, thereby enriching learning experiences.

Regarding Csikszentmihalyi's (1990) concept of "flow," a state of deep immersion and focus in an activity that fosters creativity, neuroscientific research by Dietrich (2004) suggests that during flow, the brain exhibits a decrease in activity in the prefrontal cortex, which leads to reduced self-censorship and enhanced creative thinking. This state is conducive to both learning and creativity, as it allows for greater exploration and assimilation of new concepts.

How to develop student creativity (Sternberg & Williams, 1996) provided strategies for teachers to foster creativity in students, emphasising the importance of teacher beliefs and continuous professional development, whilst Anna Craft's edited 2005 book *Creativity in schools: Tensions and dilemmas*, is another extremely influential text. Providing an overview of how creativity can be fostered in schools and the challenges teachers face in balancing creativity with curriculum demands, the book inaugurated a growth in related research and framed questions of direct and continuing relevance in this study including:

“What is creative learning?

How does it relate to creative teaching?

How do we organise the curriculum to nurture creativity?

What pedagogical strategies support creativity?

How is creative learning different to effective learning?

What responsibilities do schools have for stimulating creativity in relation to society, ethics, and the wider environment?"

(Craft, 2005)

The paper by Dean Keith Simonton titled "Teaching Creativity: Current Findings, Trends, and Controversies in the Psychology of Creativity" provides a comprehensive overview of the recent advancements in the psychology of creativity and discusses how these insights can be applied to teaching creativity (Simonton, 2012). Key areas include developments in cognitive psychology and the identified significance of traits including defocused attention and cognitive disinhibition, developments in differential psychology which highlight the domain specificity of creativity and significance of differential personality traits for creativity in different contexts, developmental psychology and factors influencing cognitive flexibility through careers, and developments in social psychology which highlights the significance of social context. Simonton also highlights significant areas of contention or significant debate in the research including over whether creativity involves domain-specific processes or if a generic process underlies all creative activities, and contention regarding psychopathology ("mad genius" concept), mental health and self-actualisation.

Whilst the strength of the evidence base can vary with some areas benefiting from more empirical research than others, the research into creativity and teaching is robust, with diverse methodologies providing a well-rounded understanding of the factors that contribute to fostering creativity in education.

Creativity also being strongly linked to academic identity formation (Frick & Brodin, 2020), the evidence in the literature is that there are a) Robust empirical foundation as to the relevance of this study, b) Relevant theoretical frameworks capable of application in continuing research, and, most significantly, c) An absence of a defined theoretical framework for creativity in teaching.

Of significant foundational literature, Jeffrey & Craft (2004), make a critical distinction between teaching creatively (how teachers use creative methods) and teaching for creativity (how teachers encourage creative thinking in students). Hennessey & Amabile's (2010) article "Creativity" in Annual Review of Psychology explores the psychological aspects of creativity and

its application in teaching. The authors emphasise the importance of creating environments that nurture creativity among both students and educators. John Trent's body of work is heavily cited, particularly his exploration of the link between teacher identity and creativity in education (E.g., Trent, 2010, 2013). His research highlights how the professional identity of teachers evolves through reflective practices and engagement with creative methodologies. Livingston (2010) examines the challenges and opportunities of fostering creativity within the context of higher education. It is widely cited for addressing the structural barriers to creativity in traditional academic settings and proposing solutions for integrating creative teaching practices.

Creative agency is a multidimensional construct that involves confidence, autonomy, and proactive engagement in creative work. Relevant theoretical frameworks include Tierney and Farmer's "Creative Self-Efficacy" (CSE) Scale (2002), Huang and Luthan's "Creative Confidence Scale" (2015), Bateman and Crant's focus on action-orientation and "Proactive Personality Scale" (1993), Karwowski and Kaufman's "Agency and Pathways for Creativity Scale" (2017), Deci and Ryan's "Self-Determination Theory" (1985), Amabile's "Componential Theory of Creativity" (1986), Glăveanu's "Creative Action Theory" (2013), and Kaufman's "Domains of Creativity Scale" (K-DOCS, 2012).

Kaufman & Beghetto's (2009) paper - "The Four C Model of Creativity" proposes a nuanced model that categorizes creativity into mini-c (personal creativity), little-c (everyday creativity), Pro-C (professional-level creativity), and Big-C (legendary creativity). This framework is widely referenced in educational settings to understand how different forms of creativity manifest in teaching and learning. Finally, Beijaard (et al, 2004) review synthesizes 20 years of research on teacher identity and emphasizes the importance of reflective practices in fostering a strong professional identity. The authors draw connections between teacher identity and the integration of creative methods in classroom practice.

In summary, there is solid ground in conceptual terms regarding teaching, teaching identity, creativity, and creative teaching, and ambiguities are at least relatively clearly defined. Furthermore, Van Lankveld (et al, 2016) identifying "a sense of appreciation, a sense of connectedness, a sense of competence, commitment, and imagining a future career trajectory" as five key developmental psychological processes evident in 59 key peer-reviewed studies focusing specifically on teaching identity in higher education, thematic areas of noted significance are also clear. Studies overwhelmingly situated within critical or constructivist paradigms and applying a qualitative methodological approach, key emergent themes include

the significance of different routes in teaching and routine experience of stress and anxiety during the initial years of teaching.

Studies and validated scales related to innovative work behaviours (IWB) highlight the significance of opportunity exploration, idea generation, idea promotion, idea realisation, criterion-based implementation, and idea sustainability (Lambriex – Schmitz et al, 2020), whilst research into creative teaching self-efficacy (CTS) (Tierney and Farmer, 2011) and creative teaching behaviours (CTB) (Liu and Wang, 2019) highlight distinctive dynamics with respect to motivations and work environment.

### Critical perspectives and position

Creativity and identity are, ultimately, just words. Their application and use normally evoking an immediate response based on preconceptions and something approaching universal appreciation and understanding, both correspondingly require additional information and insight regarding contextual circumstances to decode nuance and conceptualise more meaningfully. 'Who people are' and 'What creativity is' are at one level immediately apparent, whilst the distinctiveness of identities, acts and experiences of creativity, and creative identities, are also appreciated as being so variable and granular as to represent potentially uniquely individualised phenomenon.

Creativity is ultimately subject to significant theoretical critique. So contextually specific as to be potentially ungeneralisable beyond broad definitions of novelty and utility (Runco and Jaeger, 2012; Sternberg and Lubart, 1999), the parallels between different contexts of creativity may diverge so significantly in terms of conceptual process, that whatever attributes of commonality in terms of broad interpretive definition, their realities may converge no further than that (Setiamurti and Kurniawati, 2024; McLaren, 1993).

From a social science perspective, there is a temptation to envisage parallels between human creativity and theoretical physics in terms of the modelling and wider interpretation of apparently infinite, and routinely counterintuitive complexity. Such parallels nevertheless also demand consideration of the observer effect (Heisenberg, 1927), and the wider implications of research driven by creative interest and expectations. A potentially beguiling domain of research and theoretical consideration, from complicating general questions about potential for bias (Baer, 1998) and predetermined focus (Weisberg, 2006), it is also necessary to consider the research implications of looking at and looking for creativity. The Pygmalion Effect, for example, also

referred to as the Rosenthal Effect (Rosenthal and Jacobson, 1968), is a well-established and observed principle that human response to being knowingly tested can fundamentally complicate responses, and that increased expectation alone can be sufficient to influence performance (Eden, 1960).

Recognising the extensive body of research evidence published highlighting the measurability and positive impact of creativity development programmes, it is also important to acknowledge critique of this in the literature. From an identified lack of consistency in terminology (Hernández-Perlines et al., 2022), research methodology (Valgeirsdottir and Onarheim, 2017 in Scott, 2004), and even identified “systematic shortcomings” in creativity studies (Sio and Lortie-Forgues, 2024), creativity is far from a settled domain of intellectual enquiry.

Identity theory, especially as applied to teaching identity in higher education, has been a pivotal framework but is also subject to critical perspectives. Scholars argue its limitations in contextual understanding, methodological gaps, and the oversimplification of identity formation, and tendency to focus on fixed categories rather than dynamic, context-dependent processes. For example, Friesen and Besley (2013) highlight the lack of attention to the interplay between personal identity and broader social identity frameworks, Trede et al. (2012) criticises identity theory for insufficiently addressing the tensions that arise between professional and personal values, potentially downplaying how structural and institutional power influence identity development in higher education, whilst Beauchamp and Thomas (2009) argue that identity theory underestimates the role of socio-cultural and institutional contexts.

Whilst integrity and criticality in research design is explored directly in Chapter 3 (Methodology), it is important in this thesis to note that recognition of the literature challenging interpretation of both creativity and teaching identity is unequivocal. Whilst this study is developed with direct experience of creativity and with active interest in the diversity of experiences in teaching, a healthy scepticism and pragmatism of understanding about the research literature is foundational.

Nevertheless, notwithstanding difficulties with generalisation and subjectivity, as outlined from the very opening of this thesis, uncertainty is foundational to the rationale for this research, and it remains the case that some teachers thrive, whilst others do not, that all teachers are their most invested and most inventive in teaching at different stages of career, for different reasons and in different ways, and that teaching is a demanding and absorbing profession that impinges

on who teachers are whilst they teach. This study has been carefully designed and undertaken such as to explore these realities as objectively and critically as possible.

### Research questions and working conceptual framework

The status of the published research is quite clear at least in some respects; creativity—the simple to profound capacity and process of problem solving—is of significance to every domain of human endeavour, particularly so for education, and specifically so for educational systems at the current time. Whilst there is uncertainty regarding the efficacy of creativity models and development initiatives, evident complexity in teaching and conceptions of teaching identity, it is also clear that creativity is how all problems are ultimately solved and therefore value in seeking to developing related understanding. The literature also highlights that creative capacities, experiences, pedagogical practices, identity formation and relation to creative practice in teaching, all remain pertinent areas of enquiry relevant to the wider themes of this study.

Lived experience of teaching and of direct interaction with the teaching practices and experiences of colleagues being significant drivers in the direction of this study, it is one thing to broadly acknowledge the diversity of teaching context and experience, it is quite another to account for these variabilities and the nature of their interconnective significance, much less to define the nature of any common ground. Nevertheless, however seemingly intractable, and complex research themes may appear to be, this study exists because of a persistent interest in developing better understanding of teachers' experiences and the patterns of perceptions and behaviours underpinning creative outcomes in the broadest sense; from simple sustainability of teaching practice in the context of challenge and change, through to initiative, innovation, and wider influence in learning and teaching.

In terms of an initial conceptual framework, as reflected in Figure 1 below, teaching identity and related experiences of problem solving and creativity through teaching are clearly situated within a dynamic framework of individual, disciplinary, and institutional context. The research evidence clearly indicates points of intersection at least more likely to provide fertile ground for consideration and further investigation and supports the general legitimacy of foundational assumptions: 1) That teaching in universities requires creativity and affords opportunities for particular domains of creativity, and 2) That experience of teaching and sense of self in teaching are factors of influence in approaches to practice.

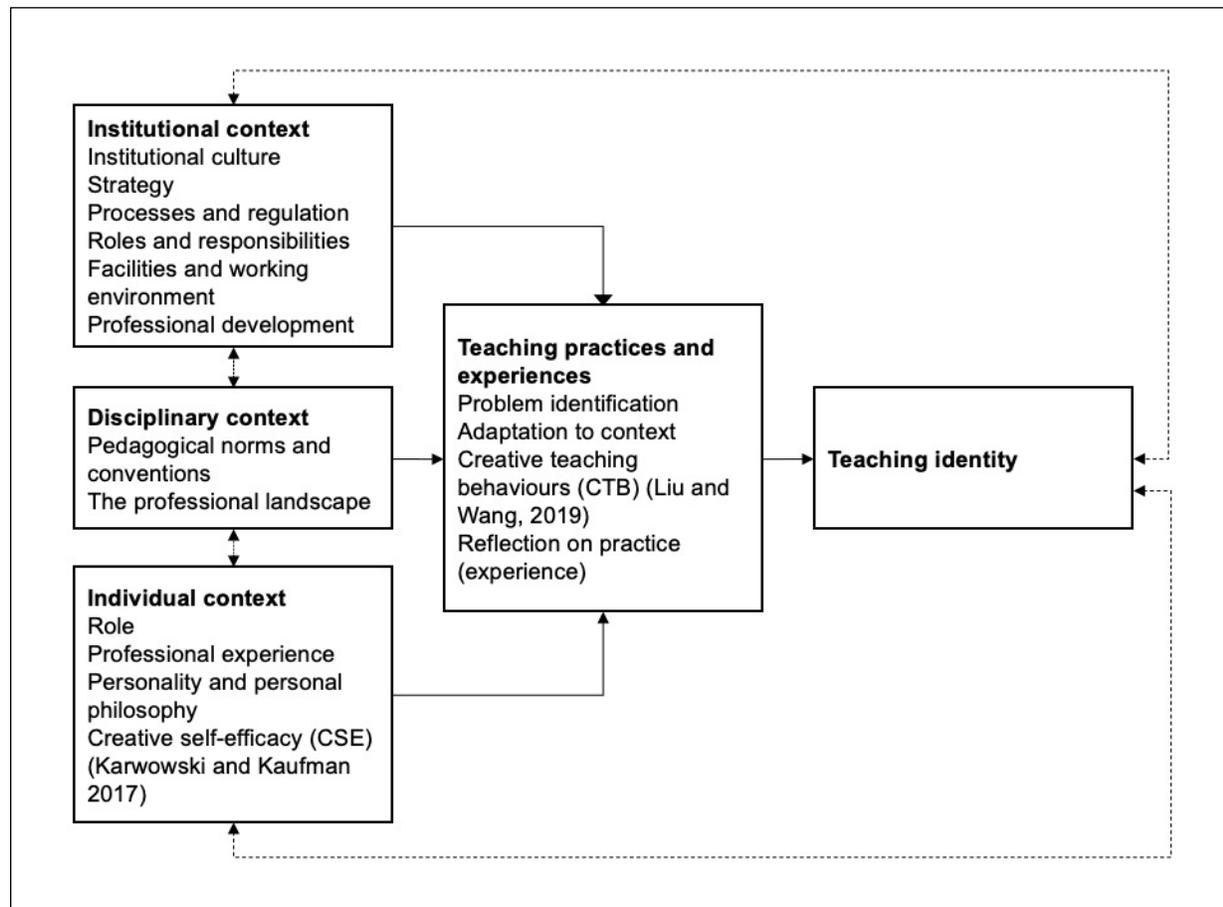


Figure 1: Creativity and teaching identity conceptual framework (Adapted from Shikalepo, 2020)

This study is ultimately intended to explore the role that creativity plays in the teaching experience-practice dynamic. Research questions underpinning this study therefore relate to the role of creativity in the development and maintenance of teaching identity, the role of identity in the creativity of teaching, and the extent to which related insights might enable better understanding of creativity and better support for teacher development.

Research questions and branching questions, refined from those outlined in chapter 1, are, therefore, as follows:

- What is creativity in teaching?
- Where/how is teaching creative?
- Where is creativity most relevant in teaching?
- What is the lived experience of creativity in teaching?
- How do teachers perceive their creativity?
- To what extent is this a factor of significance in practice?
- What are the key attributes, abilities, opportunities, perspectives, experiences, philosophies, ideals, contexts, corresponding with creativity in teaching?

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- What factors enable and inhibit creativity in teaching?
- Is there significance or distinctiveness in the dynamics of institutional, disciplinary, and individual context?
- How could creativity in teaching be developed and/or supported more effectively?

Description of the research methodology is outlined in Chapter 3.

## Chapter 3 – Methodology

### Introduction

This chapter describes the methodological approach to this study, including the nature and scope of the research data, data collection processes, ethical considerations, and the development and adaptation of an analytical framework. Detailed description and analysis of the research data is described in chapter 4.

Recognising teaching as fundamentally problematic—inasmuch as any domain of professionalism requires the development and refined application of contextual knowledge and expertise in response to operational need—as defined in Chapter 2, this thesis is ultimately designed to test two key foundational assumptions: 1) That teaching in universities requires creativity and affords opportunities for particular domains of creativity, and 2) That experience of teaching and sense of self in teaching are factors of influence in approaches to practice. The objective of this study is to challenge these assumptions and to investigate the relationship between creativity in practice and sense of self in practice. The aim is to develop a conceptual framework about the relationship between creativity and teaching.

In this study, creativity is defined at a general level according to the standard definition: the coincidence of novelty and utility (Runco and Jaeger, 2012), at a more granular level, in terms of person, process, product, and press (Rhodes, 1961), and in terms of significance for individuals and wider groups (Kaufman & Beghetto, 2009). Interest in this study relating to problem identification and definition as much as problem solving and inventiveness, creativity is defined in terms of its absence as much as its presence, in terms of concrete action and experience, and in terms of personality and perspective.

University teaching identity is defined in a similar way. At a general level, this study is interested simply in who people are when they teach, or how individuals conceptualise their professional selves in the context of teaching. At a more granular level, this also incorporates interest in exploring the significance of emotions, perceptions, values, and lived experiences.

### Research design and data collection

Given the increasing emphasis on metrics in teaching, due consideration has been given to quantitative data and the potential value of quantitative approaches in this study. A review was undertaken of existing data sets of potential pertinence to the focus of the study (module evaluation data, student engagement and attainment data, student evaluation data, graduate destinations), and potential models of supplementary quantitative approaches explored in terms of new data collection. Whilst some quantitative aspects were anticipated to emerge through the analysis, a predominantly qualitative approach was nevertheless determined to be the most effective based on a preponderance of related methodology in the wider research informing this study, and the interpretive focus on experience emphasised in this study.

The evidence required being the lived experience of teachers in their practice, and insights and interpretation of examples of practice, approaches to data collection have therefore been designed to get as close as possible to real, authenticated, first-hand experience. The most immediate available option being to design an approach to interviews with teaching colleagues, whilst direct dialogue was always recognised as an important opportunity for data collection that should be incorporated in the research design, evaluation of the implications of this approach raised initial questions regarding control measures and integrity of data. Consideration was therefore given to opportunities via existing secondary data sets and application of mixed methods approaches (Thomas, 2003), to open potential to consider oblique and direct responses to questions underlying this study.

Applications for professional recognition via Advance HE's Professional Standards Framework (Advance HE, 2021) were identified as a key source of potential analytical insight. Related to Aston's Research Inspired Teaching Excellence Scheme (RITE), accredited since 2000 formerly by the Higher Education Academy and latterly by Advance HE, RITE supports, reviews, and makes decisions based on evaluation of detailed reflective accounts of professional journeys in teaching and the support of learning in higher education.

Representing reflective and evidence-based accounts of teaching in higher education, there is, based on the direct experience of the researcher and qualified preliminary analysis, clear potential for such reflective accounts to have value in terms of more detailed comparative analysis. Focussing on a data-driven methodological approach (Cheng & Phillips, 2014), there is clear value for investigation of patterns, trends, and the surfacing of insights from this information in general terms given a) The size of the potential data set (the majority of colleagues at Aston in a teaching related role hold a category of professional recognition), b) The nature of the data set as being mapped to a common professional standards framework for teaching and involving an explicit approach to illustration, reflection and evidencing of practice, and c) The absence of systematic analysis of related applications for professional recognition despite there being over 250,000 fellows recognised globally.

Recognising limits of understanding with respect to the efficacy of reflective practice in terms of impact on teaching identity and/or practice (Kahn et al, 2006), the underlying rationale in this study is that this dataset represents an underexplored and potentially significant body of evidence capable of surfacing meaningful insights into the lived experience of teaching in UK higher education. Furthermore, these applications reflect what individuals want to say about their teaching and support for learning, independently of direct influence by the research themes in this study.

Determining to approach this study from an interpretivist and constructivist perspective, and to generate theory from, and be led by, the data, the intent was to determine what reflective accounts may reveal about teaching identity, the role creativity may play in the development and maintenance of this construct, and what detailed comparative analysis of a suitable range might contribute to definitions and understanding, both for teaching identity and creativity. Seeking to develop an explanatory framework through this analysis, a grounded theory methodological approach (Birks and Mills, 2015; Glaser & Strauss, 1967), and a constructivist grounded theory process (Charmaz, 2006) in particular, was defined to enable active engagement with relevant secondary literature and reflect the co-participation of the researcher in the research process.

Fundamentally concerned with the ideographic and phenomenological dynamics of human interaction and consideration of the multiple attendant possible activities, experiences, and associated meanings in teaching and learning, this study is situated within an interpretivist and constructivist research paradigm and predicated on a series of further testable assumptions: 1) That teaching can be defined, and that reflection on the experience and practice of teaching can reveal something authentic and meaningful about the experience of teachers and teaching,, 2) That first-person narrative accounts incorporate information capable of interpretation relevant to the identity and creativity of the author, and 3) That creativity, whilst domain centred and open to subjectivity of interpretation, can be situated in the context of identity in terms of lived experience and practice in teaching.

Whilst critical in approach regarding what teaching is, the potential to identify, code, and interpret patterns and themes relevant to teaching identity was identified as significant given the nature of the dataset. The study is nevertheless designed more cautious regarding what constitutes good teaching or teaching identity. Given the key themes of this study, a subjectivist ontological position and interpretivist epistemological paradigm are fundamentally required.

Initial data collection was gathered through collation of successful RITE applications.

Recognising that the different categories of fellowship related to the four descriptors of the Professional Standards Framework reflect different experiences and related sphere of influence in higher education, inclusion of examples from each category was sought.

Records regarding colleagues who hold categories of professional recognition having successfully completed an application through the RITE Scheme were audited for the purposes of generating a distribution list. The criteria for selection were:

- Currently an Aston employee.
- Currently holds a category of professional recognition with Advance HE.
- Successfully gained a category of professional recognition through Aston's Advance HE-accredited RITE Scheme.

Having generated a distribution list, the Study Protocol and Participant Information Document were attached to a Microsoft Form. An invitation to participate was circulated which included the scope of participation, the purposes of the study, and a means to formally record consent and capture standard equal opportunities information. In addition, the form also incorporated a file-upload option for copies of the RITE application to be submitted if consent is provided to participate in the study. Whether participants would be willing to participate in semi-structured interviews at a later stage was also recorded. Interviews were later undertaken and transcribed for analysis.

In summary, the research methodology for this study comprises three key stages: 1) The collection and analysis of RITE applications, 2) The completion, transcription, and analysis of semi-structured interviews informed by emerging themes from the analysis of RITE applications, and 3) Consideration and theorising. The data set for this study ultimately comprises a corpus of 19 RITE applications and 12 transcribed semi-structured interviews.

### Ethical and research integrity considerations

There are a number of ethical considerations in this research which were addressed through formal ethical approval processes. Identifying potential risk for participants to be extremely low given the pre-existing/historic and successful nature of reflective accounts and the optionality of participation, perhaps the most significant ethical consideration relates to my role within the RITE Scheme itself as Academic Lead, mentor, and panel reviewer since 2017 and associated factors of objectivity and interpretation.

I had had a direct personal involvement with most of the applications involved in the study, and various levels of direct supporting influence in a significant proportion. Crafting as I do all formal feedback to applicants based on provided reviewer feedback from other panel members, my influence is particularly relevant in cases where I have reviewed applications and/or provided direct mentor support. I acknowledge that I am proposing to interrogate a dataset that itself incorporates my influence and potentially including specific elements coded for in the analysis.

Whilst this does present something of a dilemma from a research integrity perspective, it is important to note that influence in terms of guidance and advice on developing or revising written applications extends only to the way information is presented, ensuring all parts of the reflective cycle are addressed, that evidence of impact is compelling, and that standards are in line with the regulated terms of our accreditation with Advance HE. Whilst mentoring conversations can and often do incorporate mentor led questions to support and scaffold reflection and planning, all written applications are nevertheless led by and account for the practice and experience of the applicant. There are robust mechanisms in place to ensure the authenticity and integrity of applications, review processes and review outcomes including external oversight.

The use of written materials in qualitative research is well established in the social sciences and is increasingly being applied more widely (Handy & Ross, 2005). Nevertheless, methodological problems related to authenticity, interpretation, and meaning, inherent in analysis of data not generated specifically for the purposes of the research are acknowledged. Furthermore, RITE applications are structured and self-consciously scaffolded to achieve a particular end in terms of meeting the requirements of related criteria. There is, consequently, an obvious implication that such accounts will emphasise success over failure, and potentially omit reference to activities, knowledge, and values in teaching that do not align with the related requirements. Most certainly driven by mutually established conventions regarding, for example, what constitutes effective teaching, more active consideration of limitations and what may be 'missing' was also undertaken.

As highlighted in the preceding discussion of methodological approaches, the focus in this research is not the professional standards framework itself. The aim is simply to apply pragmatic interpretative frameworks to explore what is written in the context of such a framework. Whilst coding will incorporate the dimensions and descriptors of the Professional Standards Framework, this merely provides for a common scaffold against which to explore what is described. Approaches to analysis are also undertaken in full recognition of the limitations and strategic nature of the source material.

With respect to objectivity and interpretation, deep emersion with the professional standards framework on the part of the researcher does bring with it acknowledged potential for a degree of conditioning. Nevertheless, this involvement also brings with it opportunity to apply more informed and more nuanced approaches to interpretation and is accompanied with a healthy degree of scepticism and clear appreciation of the potential for disconnection between high quality teaching and reflective accounts thereof. Being a good teacher does not imply a natural disposition towards first-person reflective accounts of practice, much less does a natural predisposition towards reflective writing correlate with the most effective teaching.

Finally, in addition to the question of objectivity related to analysis of written accounts of professional practice, semi-structured interviews were undertaken fully acknowledging established professional working relationships. Whilst consideration was given to interview processes and the possible use of an independent interviewer, the trust established between the researcher and research participants was determined to be of value in the research process. Maintaining robust approaches to anonymisation and protection of personal details, established working relationships were determined to increase the potential for openness, honesty, candour, and the sharing of potentially difficult personal experiences based. I was also confident that interviewees would feel comfortable in challenging any aspect of the study.

### Coding, themes, and methodological approach

Whilst the focus in this research is not the professional standards framework itself, the related descriptors, criteria, and editorial requirements for RITE applications, do provide a framework for coding and comparative analysis. Incorporating specific editorial requirements for aligning claims against a particular descriptor, these include the structure, form, and style of written accounts, and the positioning of in-text citations of defined dimensions and descriptors of practice. Equally, the increased wordcount and structural flexibility afforded by different categories of fellowship also provide for a meaningful level of individualisation both in presentation and style of written applications enabling distinctive activities and experiences to be articulated.

Representing a data set of significant potential insight, linguistic research methods were reviewed. The use of corpora for linguistic study being well established (E.g., Kucera and Francis, 1967), whilst linguistics itself is not the focus of this study, methodological approaches including data cleaning, tokenisation, and annotation, and analytical approaches including frequency, concordance, collocation, and keyword analysis, were evaluated. Greater emphasis was nevertheless placed on an approach using thematic analysis (Braun and Clarke, 2006) and, potentially, elements of sentiment analysis (Pang et al, 2002).

Thematic analysis as a qualitative research method being used to identify, analyse, and report meaningful patterns (themes) within data, the method is often associated with grounded theory, introduced by Glaser and Strauss (1967). Selected for its flexibility and applicability across various qualitative research paradigms, the approach was judged to be particularly suitable given the nature of the data set. Nevertheless, careful consideration has been given to defining and describing the inductive and deductive aspects of the methodological approach (Naeem et al, 2023).

Firstly, this study is developed fully acknowledging the active role of the researcher. Noting the work of Braun and Clarke (2006), this study recognises that themes emerge in the mind of the researcher rather than exist independently to be discovered and described. Maintaining a constructivist focus on structural conditions related to individual experiences, this study also maintains a realist methodological position. Thematic analysis is therefore employed both at the semantic and interpretative level with the aim to “reflect reality, and to unpick or unravel the surface of ‘reality’” (Ibid).

Noting the pre-defined framework associated with different categories of professional recognition, NVivo Text analytics software was initially used to analyse collated examples with additional pre-defined deductive and inductive coding developed through heuristic technique, interpretation, and auto coding (NVivo ‘Auto Code Wizard’). Techniques including text classification, word frequency analysis (term frequency-inverse document frequency), sentiment analysis, intent classification, collocation, and concordance, tagging, tokenisation and parsing, was applied following some basic classification and coding related to key characteristics.

Analysis was undertaken alongside a journaling process. Involving a systematic recording of thoughts, reflections, and observations, making more transparent evolving ideas and responses to the data over time, this method was selected specifically to enhance reflexivity, and to engage directly with potential biases and their impact of subjectivity in this research (Crawford et al, 2021). The process quickly revealed a disconnection between the richness of journaling and the process of software coding. Whilst some initial mapping and coding was documented, a decision was taken to move to manual coding and analysis relatively early in the research process. This decision was a pragmatic one based on accuracy and speed of coding processes. Interviews were undertaken primarily online, and transcriptions edited for accuracy before being shared with research participants. Further details regarding interviews are described in the analysis in chapter 4.

### Familiarisation with the data

Initial familiarisation with the data was undertaken through extensive reading and re-reading for RITE applications and interview transcripts. Analytical memo writing and other forms of iterative documentation of analysis and reflection was applied throughout the research. The process of collating individual RITE applications, anonymising file names, and initial formatting work, all enabled navigation of the data. Journaling processes included long-listing outline themes and points of interest emerging through reading. Highlighting and note-taking was also applied using the online files.

### Generating initial codes

Initial coding of both RITE applications and interview transcripts was undertaken combining theory driven (deductive) and data driven (inductive) approaches. Initially guided by pre-existing theoretical, ontological, and conceptual frameworks related to teaching identity and creativity, preliminary coding operated short of keyword searching, but was otherwise undertaken combing for direct and oblique evidence relevant to the core themes of the study. Initial coding of RITE applications was also undertaken cognisant of the common schema associated with the Professional Standards Framework (PSF, 2011). Associated descriptors, dimensions of practice, and conventions of formatting are significant in this study in terms of defining the boundary between teaching and non-teaching but have otherwise not been subject to specific analytical consideration. Nevertheless, the focus on Descriptor 3.VII for Senior Fellowship (Advance HE, 2011) being directly related to impact on the teaching practice of others, provided at least one aspect capable of immediate analysis and comparative review.

Noting the intended application of established ontologies and validated instruments, provisional classification framework of sources is established as follows:

<b>Classification</b>	<b>Contextual detail (E.g.)</b>
Subject discipline	College; School; Programme/s; HESA code
Professional role	Proportional focus of teaching in role
Professional background	Academia/Research; Industry; Clinical Practice.
Position in teaching career	Years of experience; number of institutions.
Category of professional recognition	UKPSF (2011) Descriptor (Descriptor 1-4).
Standard Equal Opportunities categories	Gender; Age range; Ethnicity; Sexual orientation; Religion or belief; Caring responsibilities.

Figure 2: Text analysis classifications.

Reflecting the research themes and ontologies determined through review of the literature, an initial framework for deductive coding was established as follows:

<b>Initial research node</b>	<b>Provisional coding areas</b>	<b>Mapping to established ontologies/scales/models (E.g.)</b>
Dimensions of the UKPSF	Areas of Activity, Core Knowledge, Professional Values	PSF Dimensions and Descriptors
Teaching	Subject expertise; modalities; curriculum design	Teaching activities; practices; responsibilities
Teaching identity	Feeling/emotional experience; commitment; motivation; uncertainty	“self, agency, emotions (which act as catalysts for agency), personal values, beliefs, knowledge, skills and efficacy.” (Rodriguez and Mogarro, 2019)
Creativity	Problem/problem solving; challenge; issue; self-	Creative Ontologies (Jordanous and Keller, 2013). E.g., Active involvement and

	efficacy; uncertainty	persistence; Dealing with uncertainty; Intention and Emotional involvement; Spontaneity/Subconscious Processing; Value; Generation of results; Independence and Freedom; Originality; Social interaction and Communication; Thinking and Evaluation; Variety, Divergence and Experimentation.
	Initiative; advocacy; influence; leadership	Innovative Work Behaviour Scale (IWBS) (Lambriex – Schmitz et al, 2020). E.g., ‘5 dimensions of IWB’: Opportunity exploration; Idea generation; Idea promotion; Idea realisation, criterion-based implementation, idea sustainability.
	Agency; motivation; climate; collaboration	Creative Teaching Behavior (CTB) (Liu and Wang, 2019). E.g., Autonomous learning; creative thinking; characteristics/motivation; environment/opportunity. Intrapreneurial Intention (Kanisoy at al., 2024).
	Creative role identity	Creative Teaching Self-Efficacy (CTS) (Tierney and Farmer, 2011). E.g., Supervisory/line management expectations and requirements, creative self-efficacy.
Personal factors	Play/playfulness; synthesis	Creative Behavior Inventory (CBI) (Hocevar, 1980). E.g., Craft, design, art, writing, culinary activity.
	Achievements	Creative Achievement Questionnaire (CAT) (Carson et al, 2005). E.g., Visual arts, music, dance, sport, architectural design, entrepreneurship, creative writing, humour, invention, scientific inquiry, theatre/film,

		culinary arts.
	Behaviours	Biographical Inventory of Creative Behaviours (BICB) (Batey, 2014).
	Activities and domains	Inventory of Creative Activities and Achievements (ICAA) (Diedrich et al, 2018). E.g., Literature, music, creative cooking, arts and crafts, sports, visual arts, performing arts, science and engineering.
		Kaufman Domains of Creativity Scale (K-DOCS) (Kaufman, 2012). E.g., Poetry, humour, performance, sport, collaboration, craft, puzzles.
Environment	Systems, structures, procedures	School Creative Climate scale (SCC) (Liu and Wang, 2019). E.g., Policies, teamwork.

Figure 3: Text analysis themes, nodes, and coding ontologies.

Whilst directly seeking to identify any features in the data relevant to the research study, open coding both for nuances that may not fit neatly into pre-existing theoretical frameworks and for anything else of significance were also key processes. Deductive and inductive approaches undertaken in combination with both methodological and intuitive approaches were applied iteratively and in conjunction with journaling and note taking. Codes identified in any analysis were then subsequently applied to other data sources.

### Searching for and reviewing themes

Coding being undertaken iteratively through annotation, note taking, highlighting key sections, and in-text comments, coded extracts were then collated within a master document to enable more direct analysis, categorisation, comparative analysis, and consideration of emerging themes.

A process of reviewing and refining themes was undertaken throughout the remaining part of this study, including the writing, and editing of this thesis. This step involved refining the themes by merging or splitting them where necessary to better capture the nuances of the data. Theory-driven and data-driven codes were used to refine themes and the emerging thematic structure.

To ensure the integrity of the analysis, several strategies were employed. Reflexivity was maintained throughout the research process, with the researcher keeping a reflective journal to document and critically examine assumptions and potential biases. Preliminary findings were offered to all participants and shared directly with a subset of participants, allowing them to provide feedback on the accuracy and resonance of the themes identified.

### Defining and naming themes

Primary thematic areas were first established related to the focus of this study and the role of creativity in the teaching experience-practice dynamic. Sub-themes and secondary themes were defined during analysis.

Affording specific attention to counterintuition, specific lenses were applied in the research process to ensure that anomalies and complexities were identifiable.

### Analytical and interpretive framework

The development of an analytical and interpretive framework was intersectional with the processes of defining and refining themes. Described in the following chapter, the process of sense-making and articulating the key points emerging from the analysis became the research process.

Description and analysis of the research data is outlined in Chapter 4.

## Chapter 4 Analysis

### Introduction

This chapter describes the analysis and interpretation of research data. The writing and editing of this chapter have been integral to the research methodology constituting a focused process of analysis, reflection, articulation, and refinement of an interpretative narrative related to emerging themes. This chapter is the story of sense making through dialogue with nineteen research participants, and analysis of over 250,000 words of reflective accounts of practice and transcribed interviews. Sections of testimony and interview transcripts are included to illustrate significant examples of emerging themes.

With 19 research participants, 12 completed supplementary semi-structured interviews of 1-hour. As described in chapter 3, data collection is concentrated by design; intensity of dialogue determined to provide greater potential for relevant depth of contextual insight.

With respect to disciplinary orientation, participants include representation from disciplines including bioscience, law, engineering, medicine, optometry, psychology, business studies, and educational development. With respect to categories of professional recognition via the Professional Standards Framework, participants included Fellows (3), Senior Fellows (14), and Principal Fellows (2).

The following characteristics were declared via the participant equal opportunities questionnaire:

- Gender - 9 males, 9 females, all with same gender as assigned at birth.
- Age ranges - 30-34 (2), 35-39 (4), 40-44 (5), 45-49 (2), 50-54 (2), 55-59 (3), 60-64 (1).
- Ethnicity - White British (7), White English (6), Arab (1), Pakistani (1), White Eastern European (1), White Other (1), White Scottish (1), White Welsh (1).
- Sexual orientation – Heterosexual (15), Gay (1), Lesbian (1), Pansexual (1), Prefer not to say (1).
- Religion or belief - No religion or belief (12), Christian (3), Muslim (2), Pagan (1), Prefer not to say (1).
- Caring responsibilities – No response (8). Primary carer for a child under 18 (5), Primary carer for a disabled child/children (2), Secondary carer (2), Prefer not to say (2).

Sufficient attention was given to characteristics and context to ensure any significant patterns or correlations were not missed. Analysis was otherwise undertaken exclusively focused on what

is articulated by research participants and attention given to specific characteristics only if these were directly described or inferred to be of significance.

Note that identifying detail including names, subject affiliation, specific disciplinary context, and editorial elements from RITE applications including dimensions of the Professional Standards Framework and embedded scholarship, have all been redacted from this analysis to preclude information capable of identifying individuals.

As highlighted in the previous chapter, reflective accounts of professional practice written in application for professional recognition represent a distinctive, personalised, but consistently structured corpus of professional experience, perspective, and practice. Semi-structured interviews were undertaken in part specifically to explore for potential of undisclosed experience of significance, and to focus more directly on questions related to the central themes of this thesis. Explicitly highlighting creativity, significant early career teaching experiences, and conceptions of teaching identity as key points of focus in pre-interview information for participants, a consistent set of thematic questions were used but conversation was otherwise designed to be open to deviation, interjection for spontaneous points of clarification, shared perspectives, and supplementary questions. Concrete answers were not anticipated; distinctiveness and diversity of experience and perspective were.

Further to the discussion of ethical considerations outlined in the previous chapter, noting that most interviews were undertaken online (10/12) and with colleagues with varying degrees of established professional relationships, careful attention was given to ensure that conversations were relaxed but framed with an appropriate degree of formality. The initiation of transcript and recording was a notable threshold focusing attention, but dialogue was otherwise immediately and consistently open and engaging.

Maintaining written notes during interviews and annotating these in the hours and days following to capture key reflections, there were evident and anticipated variations in teaching experience and perspective related to route into teaching and disciplinary background. There were also notable patterns in the underlying tone and focus of discussion in the interviews, and some interesting emergent general themes following more detailed exploration of the data overall (Note: Quote attribution include suffix 'RA' when drawn from written reflective accounts).

Significant initial themes identified include:

### 1. **Humour and irreverence:**

No interviews or RITE applications involved much by way of levity, overt humour, much less laughter. Nothing particularly funny emerged at any point. The subject of humour was explicit in one RITE application and in conversation with only one interviewee:

E.g., “The judicious use of humour in the classroom can capture and maintain student attention, whilst a teacher laughing at his own mistakes can decrease anxiety and encourage academic risk taking, thereby improving the learning environment.” (Interviewee 12 RA)

E.g., “This year in one of my modules, it was “[\*] tries too hard to entertain us.” It’s, you know, “he should take it more seriously instead of cracking so many jokes.” (Interviewee 3)

Interviewer:

“The misplaced conflation [of] a colleague looking like they're enjoying themselves, therefore, they're not taking it seriously enough; [...] that humour implies superficiality rather than depth?”

“Yes, exactly. [...] That is exactly the point, yeah. You know, “[\*] is too funny and not serious enough.” It is not necessarily a pedagogical comment as opposed to a sort of anxiety around, you know, like [...] “he seems to be so relaxed. Like surely you know, I'm feeling really stressed. Why isn't he, you know, matching that energy”, and seeing that as a bad thing rather than what I see is a good thing.” (Interviewee 3)

Reflecting an immediate seriousness of tone in accounts of teaching endeavours and experiences, the general backgrounding of aspects including playfulness, much less irreverence or joy, was immediately notable.

The rarity and explicit reference to factors constraining humorousness conspicuous given that the literature suggests a strong link between humour and creativity, particularly through shared cognitive processes such as the ability to link incongruous elements (O'quin & Derks, 2011). Evidence indicates that humour not only correlates with creativity but also appears to enhance it, potentially fostering creative thinking in both children and adults (Akben & Coskun, 2018; Humke & Schaefer, 1996; Rouff, 1975), even to the extent of reducing the influence of personality traits on creative performance (Akben & Coskun, 2018).

### 2. **Emotional experience:**

Related to the noted absence of humour, where shared, emotional experience was consistently focused on difficulty, even to the extent of personal trauma. Noting that interviews were undertaken towards the end of a difficult academic year and after a challenging period of several years for Aston and the higher education sector more widely, an underlying sense of

disconsolance was nevertheless an unexpectedly common theme. Never asking directly about emotional experience, significant emotional experiences were nevertheless openly shared:

E.g., “I was absolutely terrified.” (Interviewee 3)

E.g., “I am just bewildered by how other people see me and that's because of my imposter syndrome [...] I just don't understand why people think that I'm the right person” (Interviewee 6)

E.g., “I find [...] everything quite depressing at the moment in terms of where we are and where we're going.” (Interviewee 14)

Low emotional wellbeing, often characterised by negative emotional states such as depression, anxiety, or other affective challenges, has been shown to constrain creativity. Studies have shown that participants with low depression levels display better creative performance under negative emotional inductions compared to those with high depression levels. Those with higher levels of depression tend to demonstrate reduced responsiveness to emotional inductions, suggesting that severe depression may blunt creativity altogether (Forgeard, 2011).

Studies have also found that emotional traits such as alexithymia (difficulty in identifying emotions) and other emotional dysregulations moderate the impact of emotional states on creativity. Participants with more negative emotional characteristics showed significantly reduced creativity, especially when faced with divergent thinking tasks, indicating that negative emotional traits can constrain creative output (Zenasni & Lubart, 2008). Furthermore, low emotional wellbeing, characterised by high emotion dysregulation, negatively correlated with artistic achievements. Individuals with better emotional regulation have been demonstrated as more likely to achieve higher levels of creative success, while those struggling with emotional dysregulation experience significant constraints in their creative endeavours (Verger et al., 2021).

Experience or perception of social rejection, a negative emotional trigger, has been observed to occasionally lead to bursts of creative output, whereas individuals with lower baseline emotional resilience (as indicated by biological markers) were less capable of maintaining high levels of creative productivity overall. This shows that while emotional adversity can spur creativity in certain contexts, it is not sustainable for those with vulnerabilities in emotional regulation (Akinola & Mendes, 2008).

Studies using diaries of individuals in notional creative activities found that low emotional states negatively impacted creative outputs. Participants exhibited higher creativity on days when they experienced positive emotions, while creativity was significantly diminished on days marked by

negative emotions such as anxiety or sadness (Smith et al., 2022). Parke et al. (2015), for example, found that individuals with high emotional intelligence, specifically the ability to regulate emotions effectively, could better maintain positive affect, which in turn facilitated creativity. Poor emotional regulation hindered the ability to sustain the positive emotional states necessary for creative thinking, demonstrating the importance of emotional wellbeing in creative performance (Parke et al., 2015).

### **3. Teaching, teaching identity, and teaching trajectory:**

Teaching was an overwhelmingly complex subject both in terms of identity and practice. A sense of uncomfortableness, ambiguity, distance, frustration, even bewilderment, were noted, as well as experiences of comfort and evident synergy with their wider roles, responsibilities, and sense of self.

E.g., “I haven't always seen myself as a teacher. [...] I've had a lot of identity battles with myself and with other people.” (Interviewee 16)

E.g., “[...] Teaching is where my ambitions always lay. [...] I wear many professional titles, and some I prefer over others, [...] but ‘teacher’ [is] my favourite and proudest title.” (Interviewee 18 RA)

Whilst points 1 and 2 were more immediately notable in terms of consistency, the range of responses related to conceptions of teaching identity was most surprising and challenging of some of the assumptions in the study. Whilst diversity of perspective and intersection with other professional identities were anticipated, the hostility to and rejection of ‘teacher’ as an aspect of significance in the professional identity of some participants was unanticipated.

From early in the research process, it was anticipated that some who teach would identify primarily with other spheres or domains in academia. It was also anticipated that the relationship between career position and teaching experience and practice would have potential significance. Actively interested in the relationship between the creativity of early career teaching and that which develops through experience and developing assurance, recognising the periodic nature of higher education (cycles of wider strategic and structural change, curriculum redesign and development), it was also expected that investment in teaching may be subject to fluctuation over time, whilst examples of linear progression in the development of teaching identity were clearly apparent, non-linear patterns were also evident. The potential for early career enthusiasm and agency to be eroded over time was appreciated. It was nevertheless also notable when rendered explicit through first-hand testimony.

E.g., “I remember when [...] started. I remember attending a PG session and [...] discussing in the session [...] about risk and he was actually suggesting that he was happy for people to take risks [...], you know, 7 out of 10 ideas might fail. If you get 3 good ones that would be considered good. And that appetite to try was something I definitely did take advantage of when I was at the start of my journey. [...] but that doesn't feel like it's the case anymore.” (Interviewee 14)

#### 4. **Authenticity and meaningfulness:**

Acknowledging the self-selecting nature of the research participants—i.e., by definition, these are colleagues who have willingly elected to participate and who are therefore also likely to approach participation meaningfully, the depth and criticality evident in the interviews was nevertheless notable. The openness and willingness to share at times quite difficult personal experiences was humbling and reassuring of dialogue being authentic.

With reference to the ethical considerations described in chapter 3, the trust and collegiality established with most research participants prior to the study were immediately notable. Using defined research protocols and approaches to confidentiality, there was a clear sense of openness and willingness to share candidly.

#### 5. **Creativity:**

Creativity featured and was evident in all conversations and all written accounts of practice. Where references are explicit, this was sometimes through endorsement by others:

E.g., “Her creativity and willingness to innovate has helped me to relook at my teaching and encouraged me to take steps to modify my own teaching.” (Interviewee 18 RA citation)

Often when describing the intended impact or experience for colleagues and/or students:

E.g., “I encourage staff to engage in discussion and decision making, in order to foster creativity and ensure that they feel involved at every step of the way.” (Interviewee 7 RA)

In one case considered, albeit obliquely, in critical or in oppositional terms:

E.g., “I am not a fan of ‘innovation’ for the sake of it and value traditional approaches to ‘lecturing’ as well.” (Interviewee 11 RA)

And in only three cases openly embraced directly and personally:

E.g., “I have definitely been original, creative, innovative, all those words because I had to. [...] I had to go outside of the boundaries. I had to colour outside the lines and think outside the box and all those metaphors and cross pollinate across several disciplines and borrow ideas from other areas to make things work (...).” (Interviewee 1)

E.g., “I innovated on an international scale, embracing the virtual opportunity.” (Interviewee 13 RA)

E.g., “We showed remarkable creativity as individuals. [...] you're thinking about how you might adapt something for them or how you help them with their own particular learning journey [...] And we do that all the time.” (Interviewee 14)

More commonly, creativity is implicit in terms of how experiences of practice are described. Problem identification and resolution, the implementation of changes in the curriculum, the development of professional practice, and creative resilience, are consistent themes throughout all participant experiences, but creativity is rarely embraced directly.

E.g., “I wouldn't say I spend 50 hours per one hour lecture, but it's definitely a ridiculous amount of time. [...] So, there were various different things. [...] I think I was just banking on one of them or most of them working and if one of them didn't, it wouldn't have been the end of the world.” (Interviewee 7)

Whilst aiming for and anticipating discovery, it is nevertheless surprising when it emerges. It was anticipated that a minority would be likely to embrace creativity as a personal attribute; Natural humility is, in the experience of the researcher, a significantly common trait amongst great educators, and that binary conceptions of creativity tend to predominate (it's only creative if it is of 'Great' significance) was also appreciated. Nevertheless, the candour and the detail involved in how personal experiences were articulated and described notably revealed intricate patterns at different career stages and in different disciplinary contexts. Creativity was not just evident; it was a fundamental thread.

Equally, whilst expecting that questions regarding teacher identity might illicit different responses and reveal different perspectives, the strength of feeling and significance associated with the question were unanticipated. I was aware that 'teaching' does not have the social status as a profession it once had in the UK and internationally, and that multiple professional identities exist in the context of teaching in universities, I had not anticipated the extent to which 'teacher' may be an uncomfortable or contentious identity and the extent to which how independent of 'being' a teacher, great teaching often is.

Immediate evaluation of the corpus of professional stories compounded rather than progressed the enquiry. On the face of it, there were no immediate or conspicuous patterns of correlation between the tackling of identified problems in teaching experience and direct or explicit acknowledgement of creative experience. Participants were nevertheless all creative in different ways and different subdomains of practice.

## Identifying and defining themes

Thematic areas were defined through iterative coding of interview transcripts and RITE applications. As described in chapter 3, this process, including interpretive reflection on the overall experience of interviews and related notetaking, also structured consideration of emerging patterns and trends.

Key themes and sub-themes identified include:

- **Teaching identity**
  - Disciplinary context
  - Emotional experience
  - Motivation
  - Teaching trajectory and early career experience
- **Problem solving and creativity**
  - Creative constraint and freedom
  - Creative trajectory
- **Evaluation and analysis**

### Teaching identity

As described in chapter 2, this thesis is developed agnostic of specific theoretical perspectives of identity. Cognisant simply that teachers are at least a version of themselves when they teach and of the disbenefits of excessive discomfort in role in terms of teaching quality and job satisfaction (Meihua Liu & Yan Yi, 2020; M. Baghani & M. Neyshaboori, 2012), mental health and wellbeing (Dalal Hammoudi Halat et al., 2023), and risk of burnout (V. Naichuk & V. Shved, 2022), the focus of enquiry has been to explore the potential meanings associated with who teachers are whilst teaching, and how the experience of creativity in the broadest sense might relate to these meanings and the nature of their practice.

Reflective accounts written in application for professional recognition for learning and teaching, routinely incorporate carefully articulated perspectives on teaching. Albeit crafted for a specific end, whilst written accounts may never represent the full picture of lived experience (colleagues rarely dwell on everything that did not work or every mistake they have made), these nevertheless represent deliberate, consciously crafted statements of who they wish to represent themselves as, and what they choose to articulate about their practice. This includes illustration of:

- Contrasting but clearly defined philosophical perspectives and personal beliefs:

E.g., “I had found [...] teaching was far more successful in environments where students trusted each other and me, and I worked hard to build these environments [...]; this is a key underpinning philosophy.” (Interviewee 2 RA)

E.g., “I focus on the active co-construction of knowledge, and emphasise problem-based learning, to promote collective problem-solving, critical analysis, and synthesis.” (Interviewee 8 RA)

E.g., “At the core, though, has always been a belief that the act of learning should be a joyful challenge, an experience that is as discomforting and provocative as it is exciting and rewarding.” (Interviewee 13 RA)

E.g., “[...] my approach to teaching is grounded in ethics and the understanding that I am a facilitator, a ‘water-bearer’. My ability to help people ‘drink’ is only as good as the quality of my argument that the water is good and my ability to empower others to ‘drink’ for themselves.” (Interviewee 17 RA)

- The significance of personal teaching journeys:

E.g., “I went into this with no training and stumbled though it largely by treating students as I would like to be treated, observing their reactions, and attempting to respond accordingly and modify my approach where necessary.” (Interviewee 2 RA)

E.g., “I cannot claim to have always wanted to be a teacher. My initial career aspirations were in [\*discipline] research, however, as I pursued this path, I was exposed to more and more opportunities to teach along the way (...).” (Interviewee 7 RA)

E.g., “[...] my own professional habitus continues to evolve as both new teaching practices emerge and the range of stakeholders who I engage with widens and diversifies, and I believe it is recognition of the evolution of habitus for all participants (...).” (Interviewee 10 RA)

- Personal motivations and student-centred perspectives:

E.g., “My student-centred philosophy values learners on an individual level. I promote inclusivity and support the learning of diverse cohorts from all different backgrounds in relation to gender, ethnicity, nationality, age, disability, entry qualification etc.” (Interviewee 4 RA)

E.g., “Student employability is central to my approach to teaching and curriculum design.” (Interviewee 11 RA)

E.g., “(...) my motivation to “learn beyond the assessment” has helped me to get where I am today.” (Interviewee 14 RA)

- Emotional commitment and experience:

E.g., “I passionately believe in innovating and developing new tools and materials to engage and support students, and I actively seek opportunities to support colleagues improve their own practice.” (Interviewee 5 RA)

E.g., “It’s rewarding to hear feedback such as this helps with not only my confidence but in my ability to teach. Understanding this approach also helps define what I view as my own role as a teacher (...).” (Interviewee 18 RA)

- Conceptual grounding and position:

E.g., “I wanted to approach the teaching [...] in a way in which the student can connect on a deeper level with the subject. Therefore, the pedagogical concepts of ‘experiential learning’ and ‘deep learning’ form the heart of the student experience.” (Interviewee 5 RA)

E.g., “The eventual impact of this on me was to facilitate recognition of my own learning resilience and understanding (...). [...] Awareness and understanding of these influences underpin the keen learner-focus in my current academic practice where I view myself as a facilitator of learning whether this be with students or colleagues.” (Interviewee 6 RA)

E.g., “I take a constructivist approach to teaching (...), designing active-learning activities as far as possible.” (Interviewee 9 RA)

- Synergies between disciplinary experience, professional values, and teaching:

E.g., “My own professional values within the context of this formal teaching are very much geared to presenting positive and professional approach to adopting a change in working practices.” (Interviewee 10 RA)

E.g., “{...} my teaching philosophy is influenced by the application of experience and the concept of learning by doing. This is in part down to my background in [\*discipline] practice, which enables me to draw on real-life examples to illustrate the application of the [\*subject].” (Interviewee 12 RA)

E.g., “...the presentation of my authentic self helps to empower students by allowing them to be their authentic selves.” (Interviewee 17 RA)

Recognising the intention in applications for professional recognition to articulate a notionally idealised picture of practice, the reality of how participants choose to describe their teaching philosophy in this context is nevertheless significant. However, whilst some RITE applications do incorporate quite candid reflection, what participants determined not to say was also intriguing. Semi-structured interviews were therefore initiated to provide at least opportunity for the undisclosed to be explored more directly.

All interviews therefore began with an open question regarding how the interviewee would describe their teaching identity. Fully anticipating there would be a range of perspectives and experiences, particularly noting the dual intensive focus on teaching and research at Aston, perhaps the first notable insight was, nevertheless, the extent to which perspectives varied. At the extremes, some colleagues wrestled with the concept to the point of finding the notion contentious, whilst others articulated a complete synergy between their disciplinary expertise, their teaching, and themselves. The contrast in perspectives was stark:

E.g., “Don't know. Haven't got one.” [teaching identity] (Interviewee 10)

E.g., "(...) teaching is where my ambitions always lay. [...] I wear many professional titles, and some I prefer over others; [...] teacher, [is] my favourite and proudest title." (Interview 18 RA)

Where the subject of teaching identity was contentious, a series of secondary themes became apparent. Whilst there was some hesitancy, there was nevertheless candour and openness.

E.g., "I'll try and be as honest as I can, right? [...], I don't, can I? I don't think of myself as a teacher [...] My teaching has kind of emerged from developing skills in research but initially is kind of an unnecessary by-product of pursuing an academic career. [...] I spend most of my time doing everything other than teaching but that's the title, that's the job title." (Interviewee 3)

As anticipated, the primacy of research and/or disciplinary expert as a professional identity was apparent with many participants. Nevertheless, the extent to which teaching was seemingly perceived as oppositional was not anticipated.

The journey to teaching was ultimately described in problematic terms by 6/19 participants, with the relationship to a secondary professional identity a consistent contextual factor.

E.g., "My identity at that point was that of [...] that I just didn't have any teacher identity." (Interviewee 7)

E.g., "...having started my professional career in [...] practice. I never saw myself becoming an academic." (Interviewee 12 RA)

E.g., "I haven't always seen myself as a teacher. [...] so I've had a lot of identity battles with myself and with other people. And so yeah, it's taken a while for me to be comfortable with who I am." (Interviewee 16)

For the two participants expressing greatest discomfort with their identity as a teacher, one relates to the research/teacher dichotomy, the second, the conflict with professional specialism/teacher dichotomy. Both however explicitly highlight the absence of training as a key compounding factor.

E.g., "...The teaching isn't a strong part of my identity, mainly because I don't feel well because I haven't really trained. [...]. [...] I feel I'm justified in having the job that I have because I think I'm generally good at it, but I also know that so much of it is kind of just me kind of making it up as I go along." (Interviewee 3)

A particular significant section of interview conversation highlighted the quite visceral experience of teaching being separated or distinctive from their core professional self:

E.g., "I consider myself a [\*profession] educator (...). [...] I was asked to [...] consider the formation of my professional identity and it got very, very wordy and [I] started thinking about all my kind of formal and experiential learning that made me good at what I do."

"So, you're a [\*profession] that teaches [\*], not a teacher that teaches [\*profession]?" (Interviewer)

“Yeah.”

“You didn't see yourself as a teacher, even though that was part of what you were as a [\*profession]?” (Interviewer)

“And yeah, no, I did not. [...] I just haven't said the words -imposter syndrome [...].” (Interviewee 6)

The examples above both highlight the potential impact of a disconnection in professional experiences. Reflecting almost a resentment of teaching obligations as well as a lack of confidence in teaching abilities, all interviewees were nevertheless highly competent and professionally recognised for their teaching. Tensions between conceptions of teaching and their disciplinary and/or research expertise nevertheless revealed fundamentally different conceptions of practice. The contrast in perspectives of teaching were more pronounced than were anticipated.

Whilst the question of ‘teaching identity’ was responded to with uncertainty in some cases, greater confidence and assurance was evident in others.

For example, a synergy between disciplinary expertise and teaching was apparent:

E.g., “My teaching identity is very closely related to the subject topic. I have to make that connection, otherwise it wouldn't be authentic.” (Interviewee 1)

Student-centred perspectives were explicitly emphasised by 4/19 participants:

E.g., “(...) that is the heart of my (teaching) identity—I'm very student focused and very student centred.” (Interviewee 4)

E.g., “My teaching identity was always about creating a space in the classroom to have an open discussion of his students, to work things out for themselves.” (Interviewee 8)

E.g., “I think my teaching identity is very relationship focused.” (Interviewee 9)

E.g., “The two things that I keep coming back to you time and time again with my teaching sort of philosophy are freedom and motivation.” (Interviewee 14)

For one participant, an explicit connection between classroom innovation and student experience was described:

E.g., “Bringing innovation into the classroom, in particular experiential learning, active learning ways that hopefully bring my subject to life, the students, and hopefully make the process of learning more enjoyable.” (Interviewee 5)

One participant made explicit reference to aspects of performativity:

E.g., “My identity is a very [\*\*\*] entertainment because I think that my feeling is that learning to some extent has to be entertaining or interesting or challenging, or there's no point being there.” (Interviewee 10)

Another participant highlighted their experience of the significance of the curriculum and perceptions of ownership or habitus.

E.g., “I probably massively censored the degree of difficulty in that process and how difficult it was to get colleagues, more established colleagues, more senior colleagues, to consent to any change really to their modules. [...] I really appreciate [...] the degree of ownership one feels over a module and how much they can form part of one's identity (...). [...] I probably didn't anticipate at that time or understand quite as I do now, is how much we invest ourselves into our module and how much they can become part of our personal identity.” (Interviewee 14)

Leadership, collaboration, and collegiality were also specifically emphasised by 3/19 participants.

E.g., “I like to be a role model um and I like to kind of [...] like to sort of demonstrate elements of leadership, but not being too overbearing.” (Interviewee 7)

E.g., “I think probably the thing that sums up all aspects of what I think I do well is being an enabler, so both for students to reach their potential, but also for colleagues to get the support that they need to do their jobs properly.” (Interviewee 16)

E.g., “(...) this is how I have learnt myself, by having discussions with colleagues and fellow students, by observing and working with them, all the while having the encouragement of a supervisor, mentor and of course, teacher(s).” (Interviewee 18 RA)

Whilst confidence and assurance in teaching requiring development and time was a common theme, there were also indications of fatigue and cynicism about changes in teaching experience over time. For one participant, having established an approach to teaching through a substantive career, increasing difficulty and uncertainty were explicitly identified:

E.g., “I start with my identity. I suppose it's something which you work out iteratively over the course of a career, [...] I've got to a point now where I feel more confident about departing from that framework [...]. I've got to the point where I'm not entirely certain what my teaching philosophy is, other than a pragmatic approach to working out what students' needs are as quickly as I possibly can in the first session and working out what the balance needs to be.” (Interviewee 8)

Teaching is actively embraced as a professional responsibility, diligently and successfully coordinated by all participants involved in this study, but also something that involves significant complexity and personal struggle. Only effusively and affirmatively embraced by 1/19 participants, twice that number expressed significant discomfort with professional identity as a teacher. Creativity is therefore also evident in terms of adjusting, and in the construction of coping strategies.

## Discipline context

Interesting variations in how interviewees articulated the relationships between their subject expertise and their teaching became evident. For most, a clear synergy was evident between their subject and their teaching. For others, these are conceptualised in quite distinct terms.

E.g., “I have found that although my background in [\*discipline] research has helped my teaching practice immensely in terms of subject knowledge and the research method, pedagogical research can be quite different in terms of literature and approach. My [\*qualification] is enabling me to complete my transition from ‘[\*discipline] researcher’ to ‘pedagogical researcher’.” (Interviewee 7 RA)

E.g., “No, I suppose there are some transfers [...] I hadn't really thought about it like that.” (Interviewee 4)

In some cases, the distinctiveness of different disciplinary conventions was specifically identified:

E.g., “So, what you get is very different types of teaching [...] because [\*discipline] tends to be much more goal oriented, much more from a textbook, whereas the [\*discipline] part of it tends to be much more discursive, much more about interrogating ideological concepts and based around different types of reading materials. So, you get these kinds of contradictions even within one student on a degree programme, because it's pulling them in different directions.” (Interviewee 8)

For 5/19 participants, synergy between professional identities—between their disciplinary expertise and their teaching—was explicit.

E.g., “(...) it might be that that sort of thing comes far more naturally to me (...) it's what I do.” (Interviewee 9)

E.g., “The two key elements of my role are learning and teaching, and research. I do not consider these to be mutually exclusive enterprises, rather my research informs my teaching and enables me to demonstrate the practical application and implications of the content which students are learning.” (Interviewee 12 RA)

E.g., “I wanted to create a module that would engage students and allow them a significant freedom in choosing what topics they learned and were assessed on [...]. I liked this approach as it felt analogous to how I work as a [\*discipline] (...).” (Interview 14 RA)

E.g., “When I moved towards academia, I didn't stop thinking as a professional [\*profession] who worked for years in industry. Indeed, I realised with time the positive influence of this on my teaching practice.” (Interviewee 15 RA)

Disciplinary contexts vary significantly. Whilst a student carrying a violin into the Conservatoire sector may have had musical instruction from multiple teachers for in excess of a decade and active understanding of teaching being a likely aspect of a future career, a student arriving at

Aston Law School, for example, may not have previously encountered a teacher of law, experienced being taught the subject, much less have an established plan for future teaching. Variations in the extent to which discipline, practice, and teaching are conceived in synergistic or oppositional terms, were notable, but not necessarily characterisable by subject discipline. For some engineers, an established scientific mindset was readily applied to teaching, for others, teaching required more time and reflection to develop confidence. For some teaching medical disciplines, transition from patient-centred to student-centred perspectives is a comfortable process, with evident transferability of professional competencies and perspectives. For others, teaching as an endeavour and identity is problematic, even involving distressing adjustment to conceptions of professional self.

Whilst only a relatively small range of disciplinary contexts were captured in the research data, synergy between disciplinary context and perspective, experience, and practice in teaching was conspicuous by its almost complete absence. Whilst the relationship between 'disciplinary self' and teaching was universally apparent and significant in the formation of 'teacher self', this was almost entirely more a process of adjustment than transference.

### Emotional experience

A further notable theme in interviews was the extent to which emotional experience was highlighted. Inaugurating the semi-structured interviews in part so as to explore undocumented experiences, whilst never asking directly or explicitly about emotional experience, insights were nevertheless shared in extremely candid, and sometimes startling terms.

Wistful reflection was apparent:

E.g., "You have these histories, [...] they're not sort of dry thing. [...] I can remember so many faces and names. People took my breath away with how amazing they understood things and how they articulated things. [...] (...) it's emotional. It's got all these stories and all these individuals, (...). All these memories, all these experiences (...)." (Interviewee 14)

Nevertheless, the overwhelming focus when emotional experience is highlighted tended towards general cynicism, fatigue, and concern about the current state of the higher education sector:

E.g., "I find [...] everything quite depressing at the moment in terms of where we are and where we're going." (Interviewee 14)

E.g., "You know, and also during that period, I was not very well, (...). [...] I exempted myself from doing the PG Cert [...] because I already had some experience with

teaching, and they accepted that. [...] I regret that in a way now because that would have been an opportunity to actually get some sort of actual instruction.” (Interviewee 3)

E.g., “I think universities are so, so much more bothered about perception of quality than actual quality.” (Interviewee 3)

Occupational health and acknowledgement of negative emotions, struggle, and discomfort featured regularly:

E.g., “As a [\*specialist] I am well aware of the effects of stress on people and was conscious throughout the process to identify colleagues who may be struggling and provide more support where I could.” (Interviewee 16 RA)

E.g., “There was a certain negative emotion. Let's put it that way. [...] It's the intensity of the process.” (Interviewee 1)

E.g., “I can see that this unlearning has generated real moments of discomfort throughout the past decade [...] that has enabled me to explore and develop my practice further.” (Interviewee 13 RA)

E.g., “The main things that I have a memory of, because I felt very uncomfortable, were conflict in student feedback. So, this is something that I now get constantly and most of my colleagues get constantly.” (Interviewee 14)

Experiences of an absence of support were highlighted:

E.g., “Although there was support at an institutional level, there was a lack of support [...]. I found this experience very challenging and at times frustrating.” (Interviewee 12 RA)

There was also explicit acknowledgement of imposter syndrome:

E.g., “Like many people, I am my own worst critic. I know all the things that I do not know. I do not suffer I don't think from unconscious incompetence. I'm very consciously incompetent. And I am just bewildered by how other people see me and that's because of my imposter syndrome (...). I just don't understand why people think that I'm the right person [...]” (Interviewee 6)

3/19 participants used more acutely emotive language when describing aspects of their experience. Including description of acute anxiety, fear, terror, panic, allusions to toxic work cultures and bullying, explicit reference to embarrassment, even being “mortified and crushed.”

E.g., “And I remember very vividly my first ever seminar, and I was absolutely terrified.” (Interviewee 3)

E.g., “I have never been the most confident at public speaking, so I found my first tutorials extremely daunting. [...] (...) inside I'm going. Oh, \*\*\*\*. What are we going to do? That's a major calamity.” (Interviewee 7)

E.g., “If it wasn't for that, I think I would have been, you know, over the edge. [...] We've got some really damaged staff.” (Interviewee 10)

One example of evidently damaging experience even involved what is universally intended to be a constructive activity:

E.g., “[...] one experience I had was very damaging to myself, my self-confidence in [...] that first year. [...] I really felt it potentially undermined the developing kind of confidence and authority I was trying to develop in my very first term of teaching in higher education. [...] It's made me very nervous about being observed ever since.” (Interviewee 3)

Coping strategies and changing perspectives were also highlighted:

E.g., “I don't worry now in the way I used to [...] I feel I care less and I know that's sort of sad. But, you know, I think as people get a bit of experience, maybe they do become a bit jaded [...].” (Interviewee 3)

E.g., “I would say that I don't ever really push myself out of my comfort zone to an extent where I feel like things could get out of hand. [...] (...) I would be like, Oh my God, that's terrifying. And you know, I wouldn't do it again. I would definitely find ways to not do that. You know, feel like I was out of my depth.” (Interviewee 7)

Tensions with colleagues and departmental cultures were explored:

E.g., “These roles required me to supervise and mentor colleagues (...), and for the first time, forced me to confront an uncomfortable reality; that we each have our own pedagogical philosophy, forged through experience, and while these usually overlap, sometimes, they can be diametrically opposed.” (Interviewee 14 RA)

E.g., “I knew I wanted to leave. It made me a worse person being there anyway. They're not connected at all [...] the institute as a whole. It's dog eat dog.” (Interviewee 16)

The candour and openness with which emotional experience was articulated was significant.

Noting that academia is widely recognised as a high-pressure work environment with an international problem of occupational health and staff attrition (Schmiedehaus et al, 2023), that reported emotional experience was so acute was nevertheless unanticipated.

Reported emotional experience therefore represents a further area of creative activity through coping and recovering strategies.

## Motivation

Given the difficulties of the professional experiences described most notably in the semi-structured interviews; a further significant theme emerged almost as a natural counterpoint. Acknowledging what has been and is most challenging, what is identified as intrinsically and extrinsically sustaining, motivating, and considered most rewarding, was also highlighted.

Reflective of the emotive experiences outlined, for 2/19, fear of failure and reputational perception of pressure to perform were emphasised:

E.g., “I’m going to have to up my game here if I want to be regarded as a good teacher. [...] [I] felt a bit of pressure to, you know, from these new colleagues who well, “you’ve been here a while, you’re regard as good teacher, what do you do then?” (Interviewee 5)

E.g., “I prepare probably way more than most people do. [...]. I need to make sure that I know how this works in my head, before I try and do it in a live lecture situation because I can’t think of anything worse than looking like a bit of a [\*\*\*] in front of 200 students, so that’s what motivates me.” (Interviewee 7)

In one case, motivation was clearly a factor in their thinking about their teaching:

E.g., “My primary research area is on [\*disciplinary research] so I often think about teaching and learning in that context about, well, you know, what are the intrinsic drivers? What are the motivators? How do we jump onto the brain systems that are all about reward and motivation in an L&T context? So, I do think a lot of my colleagues [...] will bring their [\*disciplinary] understanding [...] some [...] explicitly, some of them implicitly. It’ll just be sort of hardwired into their brain that if you want a human to do this thing, then you know from research that this is the way to do it.” (Interviewee 14)

A commitment to, and positive experience of, collegiality and academic community was implicit in most RITE applications, and notably explicit for 3/19 participants:

E.g., “I believe that empowering junior colleagues to develop their own identity as a L&T practitioner is fundamental in my mentoring capacity.” (Interviewee 4 RA)

E.g., “We [\*colleagues] kind of feed off each other, so I guess I would say my enthusiasm often if it’s ebbing a little bit, will be boosted again by chatting to other people in the department because there’s always enthusiasm about teaching [...] to be found, if you look in the right places.” (Interviewee 7)

E.g., “I love learning and I consider it an honour and a privilege to be in the position where I earn a living by facilitating the learning of others.” (Interviewee 16 RA)

The significance of recognition and affirmation was also evident:

E.g., “If we still do need to get some of that affirmation as you say, it’s one thing saying I objectively have evaluated the extent to which this has worked so I can replicate it. Um, but it’s important as well to recognise the emotional experience of feeling that that you have had the effort recognised. [...] I love it [when] someone just says, ‘Oh, that was good.’ It doesn’t [matter] if it’s from a student or a colleague or my boss or whatever. I’m just like, “Oh my, I can play with pride for the rest of the day.” (Interviewee 7)

A commitment to students was clear for all participants when considering the overall corpus.

The emphasis placed on the sustaining nature of this commitment and importance of successful impact for students was particularly significant for 2/19 participants:

E.g., “[...] what is important to me is not so much the information that students learn, but that they leave more equipped to learn and develop. [...] if that’s not the point of what we’re doing, we’re in the wrong game, right? We’re meant to be inspiring people, and especially as the context transforming people’s lives.” (Interviewee 2)

E.g., “I wanted to ensure that students were able to actively engage with the content and be able to communicate with the lecturer and each other. This was challenging as class sizes were relatively large (~180).” (Interviewee 7 RA)

Inspirational teachers were also highlighted:

E.g., “Well, I actually emailed somebody who taught me at [...], which would now be 20 something years ago [...] because I was listening to a podcast about inspirational teachers. [...] I haven't had that many teachers that I actually thought were inspirational. [...] But this guy, [...] he asked the question to every single one and that's something I try and do now is to be intellectually engaged. [...]” (Interviewee 2)

E.g., “[...] my favourite teacher was a [\*] at [\*] University who basically was so confident in everything. [...] he was great. He was a really funny, confident person who just knew all the things about [\*] and he would rock up with a set of blank acetates and some HP marker pens and draw the worst diagrams in the world. But just explain everything brilliantly because he was drawing it there and then, you know, it was at the right pace and it had pictures to go with it and all the rest of it.” (Interviewee 7)

Creativity featured specifically as a motivating factor for 2/19 participants:

E.g., “I think that's what's driven me to do things like this is my own personal boredom threshold, and the fact that I like doing innovative stuff and I don't mind taking some risks. [...] So, it's that it gives me a chance to be more interested in my job.” (Interviewee 2)

E.g., “You know, I had this determination to sort of prove that it was better rather than wonder if it would be better. [...] I wanted to feel something different in the classroom. [...] Maybe I am looking for external validation, but primarily it makes my job more interesting, (...). Trying new things, that's something to look forward to.” (Interviewee 5)

Determination and ambition were also evident drivers:

E.g., “I think I've been ambitious. Maybe some would say naive in terms of, maybe this is a good thing, but I've [...] believed it is possible to do things that I'm pretty sure my colleagues had said would have said “Well, that's not possible,” or that's just [in the] too hard box, (...). I'm not going to be put off by a lot of people telling me it's either not possible or not, you know, not worth the effort. [...] You know, single mindedness [...] I will not accept defeat when it comes to pedagogical innovation, I'm loathed to acknowledge defeat [...]” (Interviewee 5)

A sense of mission and purpose was significant:

E.g., “If we are serious about educating a generation of capable scientists, it is important that we breakdown our out-of-date views about learning and replace them with innovative ideas of how to successfully provide young people with the relevant skills and knowledge to allow them to thrive in our current working climate. [...] I would like to be known as someone who looks for solutions rather than to focus on the problems.” (Interviewee 16 RA)

The importance of constructive relationships with line managers was highlighted:

E.g., "Doing the work that I want to do because [\*] is such a good line manager, he does support people moving in the direction that they feel most comfortable. (...) so, everyone's got fresh, enthusiasm for teaching new things that they've wanted to do. They've got rid of things that perhaps had become a bit of a drag, and for me, I just, I like to feel that I've got a purpose [...]." (Interviewee 16)

Where personal motivations were articulated in interviews, these were never asked for directly and always interpretable as authentic.

E.g., "I don't feel like I'm settled in my journey as an educator, and I think from my perspective, I still have an appetite to learn more and to try and innovate more and to do more." (Interviewee 14)

E.g., "I feel good about just being me at the moment. It's just a new thing - How I work day-to-day generally with my team [...] I like to make sure that everyone has a good work life balance. I think you work hard playing hard. It's been [on] my mind too for a long time trying to get socials tagged on the end of everything we do. Have these fortnightly meetings with one team where we don't have any agenda, it's just turn on moan and laugh, travel bottle of wine, whatever you want. [...] So, I think it's making it fun and being real, so people know they can talk, and they'll have things sorted eventually. I think that's what makes everyone want to do the job they do." (Interviewee 16)

What motivates and sustains colleagues also reflects creative endeavour. An inherently dynamic process of continual adjustment, repositioning, and negotiation in the moment and over time, motivations range from benevolence to selfishness, fear of failure to an active focus on student experience and outcomes.

### Problem solving and creativity

As highlighted in the introduction to this study, 'creativity' is defined broadly in terms of problem solving in the widest sense, but also succinctly, in terms of being simply the coincidence of novelty and utility.

Considering the 4C model of creativity (mini-c, little-c, Pro-c, Big-C; Kaufman & Beghetto, 2009), whilst primarily focused on creativity in a professional context (Pro-c), there is no preoccupation with professionalism of creativity. Acknowledging the ultimately binary nature of creativity (it either is or it isn't), this study is also focused on both little and mini-c creativity and is designed to explore how localised and small-scale acts of problem solving might prove significant in the context in the development of professional practice. Considering Rhodes' (1961) 4P model of creativity (Press, Process, Person, and Product), the study is more focused on the experience of colleagues in terms of the relationship and dynamics between each of the 'P's, and novelty at the level of an individual rather than the wider domain of teaching or established disciplinary practice.

In addition to a more localised perspective of novelty (originality), this study also recognises different facets of creativity including, for example, fluency, flexibility, adaptability and elaboration and the potential significance of personality including factors such as risk aversion, tolerance of ambiguity, tenacity, resilience, and extraversion (TTCT and RDCA; Reisman, et al, 2016).

Consequently, whilst of course interested in where creativity and synonymous terms are explicit, and in particular in how interviewees interpret and respond to focused questions in an interview setting, this study is also constructed cognisant of a tendency for binary conceptions of creativity (it is not creative unless conspicuous and/or profound), and for creative humility (prevailing discomfort with being identified as creative). This study is also therefore focused on where creativity is implicit, including in the identification of problems, approaches to planning, negotiation, and indeed wherever description or dialogue reveal aspects of imagination, new ways of thinking, discovery, and the inauguration of change.

Creativity and related terms were explicit in a minority of reflective accounts of practice (6/19).

Of these, only three articulated their own creativity directly, albeit obliquely:

E.g., "I innovated on an international scale, embracing the virtual opportunity."  
(Interviewee 13 RA)

E.g., "I've had to really work hard to find, you know, opportunities to be creative, but what I've realised is [I] actually really, really enjoy that side of things, creating scenarios and activities, role plays." (Interviewee 5)

E.g., "Another innovation that I have implemented has been the introduction of online reading lists. Whilst the functionality for such a system has existed at Aston for a number of years, it is only more recently that we have used them on our courses."  
(Interviewee 6 RA).

The only two written accounts to refer to creativity explicitly emphasised a focus on enabling the creativity of others:

E.g., "I put forward several suggestions on how it could be reduced to be made more manageable yet still achieve the learning outcomes and not lose the original creativity intended." (Interviewee 4 RA)

E.g., "The assessment's structure and feedback system, developed by me, encouraged the students and staff involved to demonstrate the connection between academia and industry in an inter-disciplinary environment that stimulates creativity and curiosity."  
(Interviewee 15 RA)

Whilst a fifth articulated active scepticism of innovation in general:

“I am not a fan of ‘innovation’ for the sake of it and value traditional approaches to ‘lecturing’ as well. I actually feel that sometimes people who are ‘just’ good at traditional teaching do not get enough credit for doing their job well.” (Interviewee 11 RA)

Creativity is nevertheless clear in all reflective accounts, but more routinely articulated more pragmatically in terms of problem solving or enhancement activities. There was a clear sense of uncovering depth when comparing the detail presented in written accounts with the substance of related interview conversations.

For example, in a written reflective account:

“My task was particularly challenging, (...). I thus adapted the experiential learning cycle (...) as shown in the following, in order to develop a teaching methodology suited to the non-traditional requirements the boot camp had to meet.” (Interviewee 1 RA)

Whereas, in an interview:

“I have definitely been original, creative, innovative, all those words [...] but it never started with this question - “Let's come up with something original”. No, it started with a very bare-knuckled problem that needed to be solved, and that couldn't be solved with what I already knew. It was something that required a new approach [...], a novel way of thinking.” (Interviewee 1)

With respect to where creativity is indicated but in implicit terms, there were some interesting reflections related to early teaching experiences:

E.g., “The problem I had immediately was [...] How do I project a sort of authority [...]? [...] You know, I did a decent job, you know, maybe not my very first week, but I've soon enough got the hang of it.” (Interviewee 3)

E.g., “I still have relatively [...] little experience I [...] I've not been teaching full time that long, hadn't had much experience before I came here [...] and then as soon as I got here it was, you know, “go and teach our first-year cohort” which is 200 students, 220 students, something like that.” (Interviewee 7)

E.g., “[...] the turbulence caused by personnel changes requiring an adaptive approach according to the personalities involved at any particular time.” (Interviewee 10 RA)

E.g., “I basically got to a point where for most of the things that were coming up, I basically found ways around them, [...]” (Interviewee 14)

With respect to detailed illustrative examples of creativity in practice, the identification, description, and a pragmatic focus on the resolution of problems is the most common recurring theme, particular in written reflective accounts of practice.

E.g., “The student Rep meetings with the staff [...] weren't working. [...] So, I had to do something different, cause otherwise we would have been stuck in the in the same ineffective patterns. [...] I would [never] have thought to do that before.” (Interviewee 1)

E.g., “I realised very early that getting staff “buy in” and support was going to be essential to maintain motivation and engagement [...]” (Interviewee 2 RA)

E.g., “In [\*module...], the previous learning activities were not conducive to the type of assessments.” (Interviewee 4 RA)

E.g., “I became aware of some obstacles to full student participation, in particular the size of the class [...] and the diverse make-up of the students enrolled.” (Interviewee 9 RA)

There are also examples of where creativity in practice is indicated by a more general sense of exploration or more intuition-led ways of working:

E.g., “I focused on what I was passionate about and hoped that came out in the sessions. I learned a lot about small group management and how to encourage students to think and interact with one another.” (Interviewee 2 RA)

E.g., “I sort of just joined the dots, (...)” (Interviewee 5)

E.g., “I think I was just banking on one of them or most of them working and if one of them didn't, it wouldn't have been the end of the world.” (Interviewee 7)

A commitment to students is a significant recurring theme:

E.g., “In an attempt to ameliorate some of the sense of isolation felt by our learners [...], I created a closed group on a social media platform (...)” (Interviewee 6 RA)

E.g., “I do not teach in order to separate students into different ‘grade bands’ – I teach because I want them to learn and be able to do things.” (Interviewee 11 RA)

E.g., “I had a deaf student in my class. I had always been interested in sign language, so decided to take up an entry-level qualification in British Sign Language (BSL). [...] I really enjoyed learning BSL and being able to make the student feel more a part of the group.” (Interviewee 12 RA)

There was also one explicit acknowledgment of creativity in the context of student support:

“We showed remarkable creativity as individuals. When you're dealing with an individual student. And so, you're thinking about how you might adapt something for them or how you help them with their own particular learning journey and that's great. And we do that all the time, but the sort of macro structure around us can often impinge upon our broader creativity.” (Interviewee 14)

A significant focus in Senior and Principal Fellowship applications being impact through influence and leadership. A thematic spectrum therefore became evident involving a focus on effective collaboration, influence, and germinality, as significant aspects of creativity:

E.g., “I supported and mentored colleagues who used the [\*] blueprint I designed to provide similar modules on three other programmes (\*subject context).” (Interviewee 1 RA)

E.g., “Sharing best practice comes naturally to me.” (Interviewee 6 RA)

E.g., “I helped to develop guidelines for the school on the logistical aspects of running online assessments (...).” (Interviewee 7 RA)

E.g., “I built a coaching team to support the process.” (Interviewee 13 RA)

E.g., “I have taken on this additional responsibility with the full backing of my School and have formed highly successful relationships with key members of professional staff leading to increased support for all our students.” (Interviewee 16 RA)

E.g., “My role in developing these courses involved significant co-ordination of a team of academic and professional colleagues, mentoring them to develop their understanding of how students learn online and supporting them as we developed the resources and activities (...).” (Interviewee 19 RA)

Some semi-structured interviews developed significant insights through the process of dialogue. With the opportunity to interject for points of clarification, a particularly significant section of dialogue with Interviewee 16 is as follows:

“I don't see myself as creative at all. I see myself as quite logical [...] I feel positive being creative, I just kind of see little steps to make to make things better, which I don't think is imaginative or creative.”

Interviewer

“I would conceive of creativity as being the full spectrum starting with the ability to identify problems.”

“Yeah. I can do that.”

Interviewer

“So that's a creative process.”

“So [...] I don't feel that I've been particularly creative. In order to get where I'm at, I think what I've done is, I've been faithful with small tests I've been given [...] and it's been noticed, so I've been given slightly more responsibility as time has gone on, and I've done that well too.”

Interviewer

“One of one of the things that you do that does come through [in] your application many times over is your [...] creation and dissemination of guidance [and] information structures. So, it in in terms of [being] creative, producing information and ideas that others then value, yeah, that comes into [this] space.”

“...but I still don't think that's pretty [creative]. If I do that [it's] because I need that myself, because I forget things instantly and I've got no confidence with anything, so I have to have everything written down, Mickey Mouse style, which is why I was so good in the lab. [...]”

Interviewer

“That's it again. it's not just impressive, [...] it's quite conspicuous. Not everybody has that ability - to have their ideas valued and taken as seriously. You seem to have this remarkable ability in respect to what you said about your journey into that position. Of being not just taken seriously

but listened to as an authority, in other words. Lots of people try and affect change in the way that you do. Very few have the impact that you manage.”

“Yeah, I think it's probably because I've had a couple of quite highly respected advocates, I think right from day one, (\*\*), he was the one that hired me. He's been very supportive of me and he was my line manager when I first started and he's moved up. [...] really value what he thinks and he thinks there's an element of competence in me that not everyone has and that's high praise.”

Interviewer

“Well, you said you don't seem to struggle with humility, which some colleagues do have problems with. [...] You don't consider yourself to be very creative as a teacher, but you've clearly got a pattern of being able to identify things that could be improved [...].”

“I think I find ways to get things done which ends up looking creative. [...].”

I realised that there's certain skills that we really just can't teach. Things like resilience, negotiation and spontaneity, and we're just not very good [at...] so my idea was I couldn't. I wasn't creative enough to think of ways to do it, so I thought, let's just ask them what they wanted to do, what they think will develop the skills that they think they're missing. So now they create co-create their final year assessment, which is worth as much as their final year project. It's a big chunk of their degree and they come up with some amazing... [...].”

Interviewer

“There are different ways in which you might characterise creativity, but [...] all creativity is derivative. [...] I thought the example of [how] you couldn't come up with a creative solution, so you empower your students to try and co-create the solutions, that's a creative response [...].

So, leaving aside a slight difference of opinion that we might have about how creative you are in your teaching, perhaps an easier question [is] what inhibits your creativity as a teacher?”

“[...] failure, I suppose. [...] I think [...] my own imagination is the limit. Like this, so don't think big, I see problems and I solved them [...] but I don't think more holistically about you know, something completely different that I [...] consider to be [...] the extreme of creativity with a brand-new idea, [...what I] want to do is make things better [...] and solve problems.” (Interviewee 16)

This section of conversation encapsulated key themes emerging from the overall analysis: An interesting and prevailing combination of a considered and active response to problem-solving and coordination of change, openness to sharing and evident wider influence and impact. and almost paradoxical humility and resistance to creativity as a label. Even when challenged with points of clarification and definition, creativity in practice is more commonly conceptualised in quite rarefied terms. There was certainly no evidence that creativity required embracing the term to be realised in practice, not that embracing the term correlated with higher levels of creativity.

## Creative constraint and freedom

With respect to creative constraint and freedom, as with other emerging themes, there were divergent perspectives and experiences. Throughout the entire corpus, both sentiment and thematic analysis patterns nevertheless reveal something of the complex framework of experiences, perceptions, and situational and operational contexts, that intersect with a threshold between creative action and inaction.

Noting that constraint is both present in, and a conditional requirement for creativity, the point beyond which creativity becomes practically and/or perceivably restricted to a significant degree, is nevertheless significant. For example, there was explicit acknowledgment of the limiting potential associated with perfectionism for one participant:

E.g., "Another thing that I've learned in recent times is that there's a difference between perfectionism and professionalism. Perfectionism is a condition. It's an actual psychological diagnosed condition. [...] So, (I) aim to do things as well as they can be done, that's professionalism. Perfectionism is when you push yourself so hard to you, strive so hard to tick all the boxes, and if you miss just one minute thing, then you don't do anything at all. [...] I consider myself to be a professional." (Interviewee 1)

Furthermore, also direct advocacy for openness to failure in the process of positive progress:

E.g., "as my confidence has grown, I've become more open to having less plan and having more scope for people to have their own input into the sessions. [...] So, I think having that it's that mix of confidence, and I suppose trust in process and that that lets me hopefully create these spaces for a bit more free-form learning. [...] And I think it probably seeing that seeing those challenges as opportunities, which sounds like a very cliché thing. But I think it's something you've got to do in academia. And I think you've also got to embrace failure." (Interviewee 2)

There was also frustration expressed about the risk and change aversion associated with systematic issues of internal structures and processes, notably including student experience considerations:

E.g., "[...] I think it can make students feel slightly uncomfortable when you are such an outlier from the mean when everybody else is doing more traditional things, and you're coming up with the, oh, "Anti, crazy, let's do something really mad." (...) what I do in a module is to some extent at least partly determined by the university. It could be also further limited by the college and then also further limited within my school and then further limited in my programmes." (Interviewee 2)

E.g., "[...] there are these concentric layers that already contain my creativity, [...] I see these macro sort of structures around universally [...] which do impose on our creativity. They don't stop us from having the sort of micro levels of creativity, but I think it is a suppressor, not just an Aston, [...] but it definitely does suppress our ability to do things,

and then you are sort of trying to work your way around these, [...] that can be quite challenging and exhausting as well.” (Interviewee 14)

More broadly reflecting some of the known challenges of supporting a good student experience and maintaining ‘consistency’ in the curriculum, regulations and policies can codify learning, teaching, and assessment activities to such an extent where standardisation of approach predominates. Given the importance associated with student satisfaction metrics, significant deviation from established practice represents a risk. Further compounded by national and international frameworks designed specifically to improve the portability of qualifications, whilst there is a gradual move in higher education towards different pedagogical approaches, convention remains an extremely powerful force, and change can be difficult to negotiate with multiple stakeholders.

E.g., “(...) I remember a few times when I had various suggestions about things I want to do in my own module and I was basically told yes, this would be really good, but then we'll get complaints in other modules because they won't be happening there. (...) those sort of suppressors of creativity start to pop up where you have really good ideas. [...] it's utterly perverse and this is the thing that does frustrate. [...] the sort of macro structure around us can often impinge upon our broader creativity.” (Interviewee 14)

There was reference to agency, departmental culture, and differing perspectives of urgency:

E.g., “Being new, I was not allowed full scope to change both essays but did persuade those above me to allow me to swap one of the essays, on at least a trial basis, for a [\*subject] exercise.” (Interviewee 11 RA)

E.g., “One of the biggest barriers I had [...] was colleagues and some of what I would consider the traditional arguments and ways to move forward and affect change [...]. [...] I think is where sometimes universities and academics have a source of tension that's not really discussed. The idea that from a university perspective and just from an external perspective module change programme change is, you know, on the surface, quite a neutral thing, but [...] it's the individuals involved where actually it's, you know, entangled with our identity that actually is quite emotive.” (Interviewee 14)

E.g., “Iterative reviews of the portfolio have occurred over the years I have been here – this has been a somewhat slow process in encouraging change due to initial staff resistance but to also come up with alternative ideas. [...] It was difficult at first to have staff buy in, due to resistance to change or apprehensions.” (Interviewee 18 RA)

The most common significant recurring factor highlighted when considering barriers to creativity or simply change in more general terms, is time:

E.g., “Due to limited human resource on the programmes, substantial innovation has been challenging [...].” (Interviewee 6 RA)

E.g., “I was quite lucky when I first started, because I've had a relatively light teaching load. And so, I've had the space to be able to do those things. [...] I've had the time and space to an extent to do it [...].” (Interviewee 7)

E.g., “I know I have plenty to learn, and I think it's quite sad that I am inhibited in different sorts of ways. The temporal dimension is definitely the largest, [...]. You know you go from meeting to meeting to meeting.” (Interviewee 14)

E.g., “Probably lack of time for them. I think they like to try new things out, but they don't have the luxury that I have [to] be able to try this out without the fear of failure because they just [...] have to [...] deliver their teaching and then get on with the other aspects of their job, (...). [...] their creativity goes into their [\*research].” (Interviewee 16)

There are contrasting examples related to the relationship between creativity and professional career experience. On the one hand, significant personal creativity is routinely evident in accounts of early career teaching reflected by the myriads of practices inaugurated for the first time and the initial pace of micro-adjustments towards sustainability in practice. On the other hand, there is also clear evidence of how experience can develop agency and even urgency over time.

Some participants described an experience of creativity declining over time highlighting that for some, the greatest opportunity for creativity exists at the point of least experience and greatest potential. Sometimes, this was framed positively. For example, because an initial innovation was incrementally refined following peak creativity at the implementation stage (E.g., module design, approval, and delivery). Sometimes creative decline is described more negatively in terms of the consequences of an encroaching weight of other priorities and associated fatigue, or perceived changes in organisational culture:

E.g., “I remember when [...] started. I remember him attending a PG session and [...] discussing in the session [...] about risk and he was actually suggesting that he was happy for people to take risks [...], you know, 7 out of 10 ideas might fail. If you get 3 good ones that would be considered good. And that appetite to try was something I definitely did take advantage of when I was at the start of my journey. [...] but that doesn't feel like it's the case anymore. And it's interesting when we think about asking as a dual intensive research institution, do intensive institution, sorry. So, teaching research. I have 3 very clear, clear KPIs for research papers, [...] where are my teaching ones?” (Interviewee 14)

Examples were also evident of creativity increasing over time as confidence with systems, processes, and people, expertise, and teaching identity develop. Sometimes, also because the perception of available time begins to change:

E.g., “Upon commencement of my role at Aston, I had the opportunity to undertake the PG Cert in Teaching and Learning in Higher Education. It was here that I was first introduced to the concept of ‘constructive alignment’ [...]. I have learnt through experiences and experiments and have not been afraid to try new effective approaches to teaching. I feel that through this period I have learnt resilience, practiced reflection,

but also found some mentors, the latter of which, other than the students, is the reason why I stayed at Aston.” (Interviewee 18 RA)

E.g., “I get frustrated. [...] colleagues will say it's a good idea, but not this year because “I'm changing X or let's see how why goes before we do that. [...] Well, it's like, [...] why aren't we doing it? [...] you're telling me we're not going to innovate, though it's a good idea, cause all I'm hearing is “I can't be bothered”.” (Interviewee 5)

Whilst specific measures of the creativity of participants is not a factor in this research, there is certainly no indication in the analysis of any consistent pattern in terms of where in career creativity is most concentrated for teachers in higher education. There are examples both of where early career expectation and/or experience is to be constrained by position and where creativity in practice is subject to development over time, but also where initial energy, and enthusiasm in combination with ignorance of, and ambivalence to, procedure and processes, therefore leaves individuals unencumbered by perceptions of complexity and more open to creative action from the outset. Where these intersect with sufficient capacity and the scaffolding of a taught programme in learning and teaching, they can be foundational experiences of creativity in practice. Naivety can be productive; whilst experience can sometimes lead to atrophy.

E.g., “My frustration piqued when I was asked to cover a two-hour lecture at very short notice. Within minutes of starting the lecture, I noticed that the material was dense, outdated, and that the students were disengaging. As I pressed on, I knew that I would have to do something to improve the situation. So, 30 minutes after starting, I asked the students to take a break, and during a 5-minute period, skimmed the lecture slides and rapidly reconfigured the remainder of the lecture [...]. I cut dense material, ad-libbed what contemporary science had shown us, and opened documentary clips from YouTube that I knew would accurately convey the key points to students and retaining their attention [...]. I also converted the latter half of the lecture into an interactive forum, splitting the students into groups, and having them discuss key issues and questions, with them free to use their laptops and any other materials they could find (e.g., via their smartphones), to discuss and debate the topic [...]. This provided me with a chance to interact with them, assess their understanding, and provide feedback.” (Interview 14 RA)

Recognising historiographical research and the notional variations in peak age for creativity in different fields (Hui, et al, 2019), albeit focused on economists winning the Nobel Prize, Weinberg & Galenson's study (2019), which identified 'conceptual' creativity to be concentrated in the 20's, and 'experimental' creativity to be concentrated in the 50s, correlates with the data in this study to a point; wrestling with conceptions of teaching identity and new working circumstances naturally aligning with early career experiences, experimentalism was nevertheless more evenly distributed in terms of participant experience and position in career. Indeed, whilst a specific trend towards increasing traditionalism and desire to focus on refining

current practice as opposed to transforming practice, is a common progression of expertise, it is not an experience shared by all:

E.g., “[We have] lots of examples of colleagues whose long careers would lead to, you know, relief that we don't have to spend so much time preparing for sessions anymore, you know? [...] I was somebody who got a little bit bored of that.” (Interviewee 5)

Whilst time was consistently identified as most significant barrier to creativity in practice, there was a clear tendency towards scepticism where this sentiment was most clearly expressed. Given the evident reticence to embrace creativity as a personal trait (irrespective of the reality of creative output), the speed and apparent lack of conceptual difficulty in identifying barriers to creativity was conspicuous in its contrast. Potentially involving cultural dimensions and intersecting with issues of familiarity and the comfort of research participants to disclose with candour, responses to consideration of constraints to creativity were invariably more immediate and more fluid than those related to affordances for and illustrations of creativity in practice.

### Thematic analysis and interpretation

The potential for research participants to reflect a particular, and not necessarily representative, cross-section of the academic community is fully acknowledged. Whilst achievement of professional recognition is a probationary requirement for teaching staff at Aston and other categories of fellowship tied to promotions criteria and therefore normalised aspects of professional endeavour, this research has not drawn from the perspective of those who do not hold fellowship status, those who teach on fractional contracts free from substantive role requirements, those who were simply too busy, too cynical, too disorganised, or those for whom either teaching qualifications or professional recognition experiences were negative.

Furthermore, research participants all being known to the researcher, their participation indicates a willingness and desire to help. That this could also conceivably extend into the interview process and have a bearing on responses given is acknowledged. Nevertheless, even accounting for the potential for rose-tinted spectacles or sycophancy, the candour and honesty expressed in other ways does underscore a general confidence that real stories have been told overall. The limits of generalisability acknowledged from the outset of this study, the evidence analysed in the context of this study nevertheless reflects honest and candid reflection on teaching experience.

Two research participants expressed particular difficulty with the notion of a teaching identity. Each intersecting with issues of a distinct but nevertheless alternative dominating primary

professional identity, both, synergistically, also specifically highlighted their perspectives on teacher training. In one case regretting their efforts to negotiate their exemption from participation in a taught PG Cert programme, in the other, resentment of not being afforded such an opportunity. Other participants articulated the significance of teacher training in their creativity and their teaching identity:

E.g., “When I think about my teaching, often I think about my [...] new module, which I've taught for many years since I started Aston, which I designed using [the] PG CERT. [...] I see it as part of my identity as a teacher. This is my research area of expertise, and I designed it from scratch and, you know, got to the point now that [the] module basically is never static. It changes year on year. It changes even, you know, while teaching. All tweaks that are necessary to make it work well so from that perspective I think, you know, yes, I am creative with my teaching at various levels.” (Interviewee 14)

Paradoxically, teaching qualifications seemingly reflect a constructive scaffold for creativity in both their participation and non-participation. Those highlighting participation in taught programmes consistently reflect positively on their early career teaching experience and identify clear examples of intersectional creativity in their teaching practice. Those choosing not to participate, or notionally excluded from participating, nevertheless also highlight examples of creativity at least to the same extent and equivalence. The difference being only the emotional experience of early career teaching. Absence of teaching qualifications in no way precludes or inhibits creativity in teaching. Engagement with teaching qualifications nevertheless fundamentally changes the experience of early career teaching and seemingly mitigates for a range of potentially inhibiting factors including negative early career teaching experiences.

Research participants ultimately expressed varied and complex feelings about their teaching identities. Some described a strong sense of identity with teaching, while others experienced conflicts or discomfort, particularly when balancing teaching with other professional roles.

Personal and professional backgrounds significantly influenced teaching identities, with many educators reflecting on how their past experiences shaped their current practices. Many participants described significance in transitions of professional roles into teaching roles, which often involved redefining their professional identity. Several interviewees experienced internal conflicts regarding their identity as educators, often grappling with whether they primarily identify as teachers or professionals from another field. The process of redefining professional identity and overcoming imposter syndrome often elicited negative emotions, including self-doubt and anxiety. Challenges related to institutional expectations and the pressures of academia

sometimes led to negative feelings, particularly when balancing multiple roles and responsibilities.

Nevertheless, participants also frequently viewed their teaching role as enabling others, both students and colleagues, in achieving their potential and highlighted meaning in this. Participants consistently emphasised the importance of building relationships with students, centring their teaching identities on understanding individual needs and fostering supportive learning environments. A recurring theme was the view of educators as enablers, focusing on empowering students and colleagues to reach their potential.

Creativity was often implicit in problem-solving and curriculum development, although not always directly acknowledged as a personal trait. Some participants embraced innovative teaching methods, while others valued traditional approaches or expressed scepticism about innovation for its own sake. Creativity was sometimes described as drawing from multiple disciplines to solve problems and enhance teaching practices. Emotional experiences were a prominent theme, with participants expressing feelings of anxiety, fear, and imposter syndrome. Despite challenges, some participants described rewarding and positive experiences in teaching, highlighting moments of joy and satisfaction. Educators were motivated by a commitment to students, personal growth, and the desire to contribute positively to the academic community. Collegial relationships and mentorship were important for professional development and motivation, with many participants valuing collaborative environments.

Creativity was often embedded in problem-solving and adapting to challenges rather than being overtly acknowledged as a personal trait. Innovative teaching methods were highlighted, including student-centred approaches and active learning strategies. Examples include co-creation with students to develop assessments and emphasis on empowering students through guidance and self-directed learning. Participants discussed the importance of being adaptable and flexible in teaching, particularly when facing unexpected challenges or changes in educational contexts. Creativity was often linked to problem-solving, with participants discussing how they identify and address challenges through creative solutions. Participants emphasised the integration of innovative teaching methods and cross-disciplinary approaches to enhance learning. The ability to adapt and be flexible was seen as a critical aspect of creativity in teaching. Participants emphasised the need to stay current with changing tools and technologies.

There was a range of experiences regarding the relationship between disciplinary expertise and teaching practice, from seamless integration to perceived conflicts. Participants' professional identities and teaching practices were shaped by their disciplinary backgrounds, affecting how they approached teaching and learning.

Sentiment analysis reveals a mixture of positive, negative, and neutral sentiments across different themes. Participants expressed positive sentiments about their ability to make a difference in students' lives and inspire future educators. Many educators found fulfilment and joy in their teaching roles, emphasizing the rewarding nature of facilitating learning. Negative emotions such as anxiety, fear of failure, and imposter syndrome were nevertheless prevalent, particularly regarding teaching performance and professional identity. Participants voiced concerns about institutional pressures, lack of support, and the perception of teaching quality, contributing to feelings of cynicism and frustration.

Imposter syndrome was a recurring theme, with many participants expressing feelings of inadequacy despite evidence of competence and success. Despite challenges, participants also described feelings of fulfilment and satisfaction from their teaching roles, particularly when they could see the positive impact on students.

The thematic and sentiment analysis of the document highlights the complexity of teaching identities and the multifaceted nature of creativity and motivation in higher education. Educators navigate diverse emotional landscapes, balancing personal and professional challenges while striving to create meaningful learning experiences for students. The findings underscore the importance of supporting educators' professional development and well-being to foster a positive and innovative teaching environment.

A supportive professional community was seen as crucial for personal and professional development, with mentorship and collegial relationships providing motivation and encouragement. Participants were motivated by both internal desires to improve as educators and external factors such as job stability and professional recognition. Participants expressed positive sentiments regarding their professional growth and the development of their teaching identity, highlighting achievements and the impact on students. The supportive nature of their institutions and colleagues was viewed positively, contributing to a sense of belonging and professional satisfaction. Participants were motivated by a desire to improve as educators and a commitment to student success. Intrinsic motivation played a significant role in driving their teaching practices.

Considering the 4-C model of creativity (Kaufmann and Beghetto, 2009), the evidence demonstrates significant granularity in terms of what Pro-C means in the context of teaching. Whilst of course incorporating examples of the development and realisation of classroom craft (skills) and realisation of pedagogical innovation (new to teacher, student, dept, university, discipline, sector), it also encompasses significant elements of adaptability and regulation of emotional experience through individual experiences of:

- Adjustment to new systems.
- Collegiality, collaboration, and advocacy.
- Guidance, support, and continuing professional development.
- Interaction with students.
- Problem identification.
- Managing inherited curricula.
- Positionality and construction of new professional identities.

Creativity is articulated confidently by a minority as a personal skill-set, but actively embraced by all research participants in terms of their aspirations for students, and actively demonstrated by all in their practice.

## Summary and conclusions

Whilst some patterns and trends are evident in the data, the most significant conclusions drawn from this analysis relate to the diversity and distinctiveness of individual experience. Whilst there are some aspects of disciplinary context that may determine some elements of teaching experiences (class size, teaching modality, student body, responsibility, and control), teachers ultimately navigate complex and dynamic structures and processes of perceived creative opportunity and constraint in highly individualised ways. Core conclusions of significance are as follows.

Teaching identity is multifaceted, complex, and often experienced in conflict with core professional identities. Creative teaching is supported by colleagues who do not consider themselves to be creative, or teachers. University systems and structures are experienced as enablers of creativity for a minority, and a constraint for a majority. Novice status with university processes can both limit and enable creativity. For many, confidence, and opportunity to experiment take time to develop, for others, the absence of barrier awareness is sufficient to inaugurate change more immediately. Synergy between disciplinary context and teacher development is suboptimal (teaching and subject experienced as non-overlapping or problematically intersectional domains). There is a disconnection between an openness to

explicitly supporting creativity in learning, with a willingness to acknowledge creativity in related processes of teaching. Creativity is experienced most clearly at a localised level (E.g. through interactions with students, personal curriculum design choices), but perceived as most constrained at a systematic level (E.g. speed with which change can be implemented, openness to novelty, the drag of convention and norms).

Furthermore, whilst not entirely the case, it is much more likely than not that colleagues new to teaching in higher education will face considerable challenges early in their career, all requiring creative responses but also draining creative reserves. The way teaching careers begin can have a significant bearing on how teaching careers develop. Creativity is evident at all stages of academic teaching careers, can develop and increase over time, but can also decrease over time. Creativity and innovation in practice where explicit, are clearly professionally appropriate and operationally functional. Nevertheless, examples overwhelmingly relate to adaptation or modelling of existing practices in ways that may be novel to Aston, but that are already well established elsewhere. There is an apparent ceiling on creative possibility.

Whilst one participant highlighted teaching as a professional aspiration from an early age, the reality of teaching in higher education is that it is not an aspirational profession in quite the same way as others. Whilst many in compulsory education may develop aspirations towards the 'teaching profession' more generally, teaching in universities is more commonly something that appears from the margins of a research, or following steps through other professional experiences. Very few, if any, teachers in universities become teachers in universities following deliberate steps from an early age. It is therefore perhaps not surprising that many find themselves teaching in universities somewhat bewildered by how they got there rather and what that means for who they are professionally.

The construction or reconstruction of professional identity therefore represents a distinctive and important aspect of professional development as teachers. Whilst quality of teaching may not depend on the level of comfort with which an individual holds the designation of teacher, the trajectory of teaching careers trends towards more sustainable creativity in practice where teaching identity is at least reconciled as part of a wider professional identity.

Using Rhodes' 4P model of creativity, key findings can be summarised as follows:

### Person

With respect to the personalities, traits, attitudes, and values of research participants, intellectual acuity, complexity of temperament, and a sensitivity to problems were consistent and clearly evident in all cases. Mental flexibility and divergent thinking were also evident, but to a lesser extent.

An apparent deficit is indicated compared with professional environments in other fields involving equivalent diversity and breadth of expertise. Professionalism in teaching in higher education involves a heavy weight of convention in every disciplinary context, and a positioning within a complex web of regulatory conditions. Whilst there is evidence of successful navigation of systems and processes, there is no evidence of systems and processes actively supporting creative action. More worryingly, there is active indication that teaching in higher education may reduce the creativity of teachers.

### Process

With respect to perceptions, motivations, and the actions of practice, there are consistent patterns of preparation, identification of change benefit, and examples of change implementation. Whilst there are illustrations of change inspiration, that creativity was generally treated as a moniker of exception also seemingly compounded aspects of metacognitive awareness. Where solutions to problems were identified, explanation was more commonly prosaic than revealing of playful or novel thinking; change tending to be expressed in more logical or modelled terms than something discovered or imagined.

A deficit again reveals itself. Creativity is most certainly required to implement change in the curriculum. This was evidently overwhelmingly absorbed in navigating and negotiating the change process than in the design of the change.

### Press

With respect to the relationship between teacher and teaching context, whilst the data in this study has demonstrated how the same environment can be perceived and experienced in diverse ways, there were nevertheless common patterns in terms of the distribution of creativity. Unfamiliar systems, processes, staff/student culture, inherited curriculum, team-teaching, (etc.) all requiring significant "small-c" (Kaufman & Beghetto, 2019) acts of creativity in often complex

combinations and at stretch, nothing of formal processes were identified as anything other than erosive of creative energy and action, and creativity through collaboration subject to luck more than design.

## Product

Practice of institutional, national, and international significance and impact is evident in the work of research participants. Nevertheless, the cold light of day does require some sober reflection on what the data ultimately reveals. Fully acknowledging the prism through which this study has been conceived, designed, and coordinated is one that casts a light coloured by a natural predisposition towards sympathy for teachers and advocacy of teaching, no examples of practice highlighted through RITE applications or supplementary interviews identified any act of innovation beyond the level of effective adaptation and implementation with related pedagogical practices overwhelmingly modelled from pre-existing examples of practice or professional experience. Whilst Pro-c levels of creativity are clear in how these are devised, understandably, nothing of original creation at a Big-C level was evident from the perspective of conceptual design and efficacy.

Not necessarily associating a creativity deficit to Press alone, universities are nevertheless ultimately paradoxical organisations; designed as hubs of innovation whilst seemingly uniquely structured to constrain creativity in teaching and learning due to the overwhelming centre of gravity of disciplinary, organisational, and sector convention. Innovation requiring space, time, imagination, structured opportunities and receptiveness of cycles of failure and recovery, these are not evident systematically. Indeed, where creativity does emerge, there is overwhelmingly a reliance on happenstance rather than defined process.

Drags on creativity including perceptions of things working well enough already, new ideas being too out of line with local convention, concerns about student perspective, perceived or defined gaps between agency, responsibility, and opportunity, are overwhelmingly identified as secondary to time as the preeminent barrier to personal creativity. Analysis and consideration of the wider research data nevertheless reveals a more nuanced series of dynamics.

Constraint of time and busyness being culturally normalised factors of social discourse (Time, 2024; Vercruyssen et al., 2013; Wojciszke, 2004), it is almost convention in UK higher education for initial exchanges when meeting a colleague to involve reference to current work focus. From Grice's cooperative principle (1975) to Levinson's politeness principle (Brown and Levinson,

1987), this commonly involves emphasis of that which is most challenging over what is most mundane or routine. Reflected in the tone of most interviews, the shared experience of professional difficulty and coping is an understandable reality given the challenges and uncertainties facing higher education, but also reflects distinctiveness of cultural context. When “Not too bad” becomes normalised as the natural response to the conventional ‘How are you?’, it is easy to see how basic empathy can lead to the discourse of busyness becoming more deeply engrained.

Nevertheless, not challenging the reality of work pressures in higher education (Wonkhe, 2024) or the fact that chronic stress impairs cognitive function (Vartanian et al, 2020) and correlates with reduced creativity (Kim et al, 2022), the notion that creativity can only emerge within ideal conditions is clearly problematic. Whilst time may well be a factor of significance, the notion that creativity is reduced due to busyness implies something about the conception of creativity itself as something aspired to but not fundamental to core professional responsibilities or activities. Implicit within the data is the reality that time may not be the true barrier to creativity, but the systematic processes of formalising or embedding change may be.

The relationship between creative self-efficacy (Tierney and Farmer, 2002), creative confidence (Huang and Lathans, 2015), creative initiative (Bateman and Crant, 1993), and teaching identity, is intriguing. Every possible pattern of creative trajectory is evident and

A conceptual model of creativity and teaching identity is described in the next chapter.

## Chapter 5 Theoretical framework and implications

### Introduction

This study has been focused on the role of creativity in teaching. The foundational question underpinning this study being: *What role does creativity play in the teaching experience-practice dynamic?* Considering teaching both in terms of career journeys and individual practices and perspectives, the significance of creative action and endeavour in terms of perceptions of professional self and teaching identity were established as key potential variables of significance. Underpinning the foundational question have been a series of necessary precursory questions including:

- How is teaching creative?
- Where is creativity in teaching?
- What are the key attributes and abilities required to be creative in teaching?
- How do conceptions and experiences of professional self relate to creative action and experience?
- What factors enable and inhibit creativity in teaching?
- How could creativity in teaching be developed and/or supported more effectively?

This chapter articulates responses to each of these questions, explores significant unanticipated and secondary insights, describes a theoretical framework developed through analysis and interpretation of the data, and considers the implications for educational practices.

### Theoretical framework: Creativity and teaching identity

The initiation of this study being the culmination of a considerable period of research and teaching practice experience, variations in the experiences and practices of teachers have long been an area of professional interest. Fundamentally aware of the diversity of expectations that teachers bring to their practice, the distinctiveness of university teaching provides for further layers of complexity and individuality of experience. Nevertheless, conventions and institutional norms also determine at least some limits of variation in related working practices and experiences. As complex as teaching may be, it remains the simple act of supporting learners to achieve defined outcomes and therefore maintains reasonable grounds for comparability across disciplinary domains.

Whilst seeking to adopt as objective approach as possible, this study is ultimately founded incorporating a series of assumptions and expectations. As directly evident from first-hand experience, those who teach in universities do so with different perspectives, with different

motivations and levels of investment and commitment at different stages of their careers, and with very different conceptions of selves as teachers. Perhaps the most significant conclusions of this study relate to what some of these subtleties reflect about creativity in practice.

Figure 1 (Chapter 3) represented the initial conceptual framework for the study. Derived from established models, this was designed as a pragmatic mapping of key contextual factors. It was logical from the outset to consider teaching identity as the product of systematic conditions, creative endeavour, and experience, with points of intersection between different contextual domains being likely points of influence and significance.

Albeit highlighting themes and identifying some general assumptions, the methodological approach employed in this study was designed to be led by the data. Concerned initially with the potential for an absence of insights of significance or capable of practical application, significant changes in perspective have nevertheless been realised. Insights gained through the coding and analysis described in the previous chapter informed a revision of the model as outlined below.

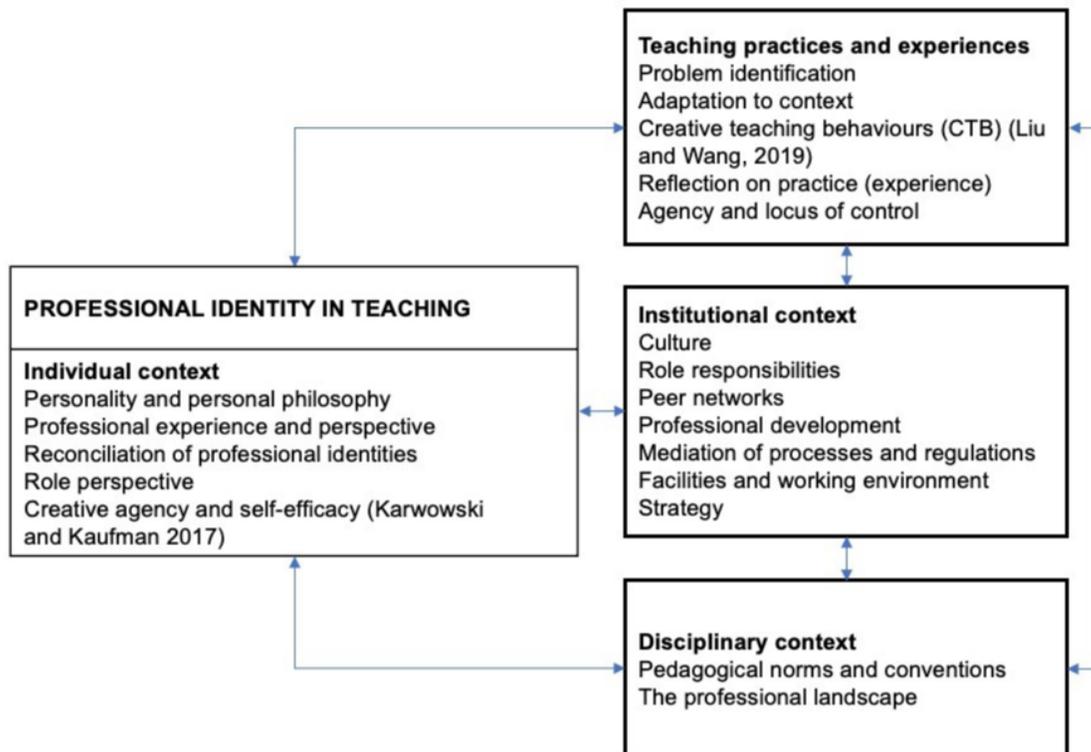


Figure 4: Professional identity and creativity in teaching conceptual framework (Adapted from Shikalepo, 2020)

Recognising from the outset the diversity of perspective and experience in teaching, general assumption that teaching identity in universities would primarily develop through practice and derive in ways from interaction with peers, systems, structures, and processes, has been most significantly challenged. Whilst of course perceptions and experiences of teaching are diverse, the revised conceptual framework reflects a specific foregrounding of *Professional Identity* over *Teaching Identity* based on analysis and interpretation of the data. Academics do not generally become 'teachers'; they more commonly become extended versions of more complex and dynamic professional selves. A minority embrace teaching, most experience a mild to significant discomfort with the adoption of teaching responsibilities, many tolerate the responsibilities, some resent the very label.

Noting van Lankveld et al (2017) identification of 5 key developmental psychological processes - "a sense of appreciation, a sense of connectedness, a sense of competence, commitment, and imagining a future career trajectory", given the heterogenous nature of pathways into teaching in higher education, it is therefore to be expected that patterns of experience, perspective, and professional endeavour through teaching careers would be subject to equivalent variation.

Unlike teaching in 'basic education' contexts as defined by prevailing international standards (E.g., UNESCO International Standard Classification of Education), where teaching qualifications regulations require proactive decisions and actions to qualify as and ultimately become a teacher, university teaching is undertaken overwhelmingly by those with primary professional interest and expertise in other areas. Whilst there is evidence of longstanding aspiration towards, and professional satisfaction and motivation in, teaching, the overwhelming majority arrive in teaching contexts with varying degrees of surprise and as an initially adjunct activity or consequence of opportunities tangential to a primary professional 'home'.

Consequently, whilst nobody ends up in a primary or secondary classroom without a protracted lead time of developmental steps and opportunity for reflection and the development of conceptions of self as teacher, it remains the case that 'teaching' in universities is routinely undertaken by individuals who do not consider themselves to be teachers, and who have never intended to teach. Whilst teaching as a profession always involves at least an extension of professional self, teaching in universities is therefore an environment where teachers face this adjustment with reduced preparation and often unwillingness. The highest level of teaching in education is not supported by the most motivated much less the most prepared; not just occasionally, but as a matter of routine. From the perspective of teaching careers, longitudinal

experiences and professional behaviours in teaching are subject to equivalent heterogeneity as point of arrival in teaching.

As evidenced through the analysis of the data in this study, inviting academics or researchers to 'become teachers' may be a fundamentally flawed approach to the professional development of teaching in higher education. Whilst for some, difficult early career teaching experience is precisely the opportunity and challenge necessary to illicit constructive responses, for the majority, experience can be disorientating and emotionally challenging, especially if perceived as oppositional to or in negative contrast with another professional identity. Even when individuals may be more predisposed towards or otherwise comfortable with teaching and becoming a teacher, distinct hesitancy is evident in terms of earning, much less owning, that professional identity.

With respect to creativity, the relationship between experiences and perspectives of teaching, and conceptions of creativity in teaching, were equally significant indicators informing changes to the theoretical framework. Whether the product of earnest endeavour, or reactionary adaptation, the relationship between creative agency and creative self-efficacy evident in the data revealed distinctive and divergent patterns both of experience and practice.

Creative self-efficacy referring to an individual's belief in a capability to generate creative ideas and solutions (Tierney and Farmer, 2002; 2012), and creative agency being the ability to act upon those beliefs to effect meaningful creative outcomes (Glăveanu, 2015), their interrelationship has been widely explored in psychology and education research (Karwowski, 2016). Interpretation of the data in this study revealed significant divergence. Whilst creative self-efficacy was routinely reported as low, particularly so in early career teaching, significant creative agency is nevertheless also evident.

With respect to the 4C model of creativity (Kaufman and Beghetto, 2009), whilst it is possible to identify numerous examples of creative activity in teaching, determining what falls within the realm of Pro-c creativity in teaching is more challenging conceptually. Identifying no Big-C creativity (no examples of novelty and value of significance universally), Pro-c in teaching either encompasses all inventive, adaptive, adjustive behaviours in the professional context of the role, or is definable in terms of a series of prevailing standards and norms in the profession.

All actions and behaviours in teaching are inherently novel when inaugurated for the first time. Even where established activities are repeated, there is clear evidence of variation and

elaboration in approach. Interpretation of the data highlighted some examples of high creative self-efficacy correlating with high creative agency and corresponding extremes. More routinely, creative self-efficacy and creative agency diverged significantly.

Noting that all creative processes involve cycles of divergent and convergent thinking (Guilford, 1967), there is also an interesting dynamic with respect to the wider structures and disciplinary norms of university environments. Convention provides both the necessary conditions for creativity, but also restrictions capable of narrowing opportunity for new ideas. How these are interpreted and responded to depends on a wide range of variables. This study indicates there is an evident tension between seeking to establish confidence with conventions in teaching, with perceptions of creativity in teaching. Raising questions regarding when actions in teaching practice are or are not 'creative', whilst what is articulated by research participants can routinely be argued to represent creativity, if there is active resistance to that labelling, whose interpretation should prevail? If the outcomes of action reflect elements of novelty and value, is that sufficient? Or should the intentionality, approach or experience of the teacher be a determining factor? In the end, the data in this study reflect patterns of inventiveness and novelty in practice developed through processes experienced as purposefully conventional, whilst patterns of highly conventional modelling of pedagogical approaches are also articulated in terms of innovation in practice.

In terms of factors that enable and inhibit creativity in teaching, both are ultimately constrained by and reliant on university structures. Perhaps the most significant emerging theme in this study is the extent to which *teaching*, and *creativity* are perceived by those that teach in universities. Whilst embraced by a minority, both constructs are more routinely perceived as oppositional to other established professional ideals. For early career teachers, the understandable desire to establish confidence with approaches aligned with prevailing standards and norms can jar against preconceptions of what creativity represents. For colleagues also suspicious of or resistant to teaching as a professional domain, explicit focus on creativity can serve to compound suspicions of a lack of rigour or seriousness.

With respect to the original questions in this study, it remains the contention that teaching and learning are inherently creative acts. Nevertheless, in terms of how creativity in teaching can be developed and/or supported more effectively, the most interesting conclusion is that it may simply be best to reduce the emphasis or stop talking about both entirely. Whilst aspects of teaching may be generalisable in terms of spaces, practices, and processes, the nuance and

foundations of disciplinary context and perspective can lead to both teaching and creativity being perceived as external and routinely problematic constructs.

The argument that those who teach in universities need to be, and will increasingly need to be more, adaptable, flexible, agile, inventive, elaborative, resilient, resourceful, and imaginative, is uncontentious. How best to foster and encourage these attributes, is more complex. The conceptual framework represented in Figure 4 above highlights the need first to situate approaches in the context of the individual who teaches and recognition of the process of reconciling professional identities. Whilst discomfort and challenge are to be expected, a key aim should be to work to establish a sense of 'fit' between what they bring to teaching, and how they experience and develop in teaching. Beyond that, the professional attributes and practices that can be more broadly definable as creative emerge dependent on an individual teacher's experience through institutional, disciplinary, and role context. *Professionalism* in teaching in universities being partly definable by the management of procedural tensions between intention and operational limitations, perhaps the most significantly *creative* aspect of teaching is resilience.

### Summary and the implications for teacher development

Whilst there are evident conceptual tensions between explicit focus on *creativity* and *teaching identity* and value in a more nuanced terminological approach, teachers cannot be their authentic selves in teaching unless creative in their practice. Unless only ever repeating precisely the same practice and reacting robotically using pre-modelled responses, creativity is also inevitable in practice.

In terms of how teaching is creative, there are multiple subdomains and activities affording related opportunities. From the perspective of professional development in early career teaching, these frequently include development of new practical competences including classroom craft, learning design and curriculum development, assessment and feedback design, guidance for students and learning object design, and personal tutorial support.

The attributes and circumstances required to realise creativity in teaching are complex, but recognition of the distinctiveness of personal and disciplinary context is a key factor. *Creativity* being so generalised a term and one treated in some degree as mysterious and suspect, the layering on over concurrent focus on *teaching* and *teacher* identity can render both less rather than more accessible.

Effective scaffolding of support to develop creative agency and creative self-efficacy in teaching should begin from the circumstances of the individual, but cannot rely solely on a programme of study, departmental structure, or teaching qualification, to this end. That the 'system' at large is almost universally described in the data as net-negative for creativity reflects concerning patterns regarding wellbeing and occupational health in universities, but is also a further potential symptom of a cultural normalisation of conflict and animosity to change.

Creativity ultimately does play a significant role in the teaching experience-practice dynamic, but this is only explicitly the case from the perspective of observed practice. External interpretation and individual experience of creativity in practice can diverge entirely. This raises one of two possibilities, either a) People are more creative in their teaching than they appreciate/recognise/experience and would benefit from greater focus on metacognition; or b) Interpretation of creativity is not dependent on intentionality, and greater emphasis on mastery may simply afford space for individual creativity to emerge unhindered by the weight of explicit expectation.

The implications of this study for the professional development of teaching in higher education are relevant to all stages of career, but particularly in the context of early career experiences. In the simplest possible terms, it is necessary to narrow the focus and to de-generalise approaches to the development and support for creative self-efficacy and creative agency. Both enabling development of confidence and security in practice, they remain critical to address challenges of teacher experience but require more nuanced consideration. Wider structures and their affordance for development of mastery and influence in practice and approach, are also critical factors in enabling teachers to reconcile the balance between incremental refinement with opportunities to develop more novel approaches. Other cultural and systematic factors of significance include affect and teacher experience (Bandura, 1997), role demand and expectations (Tierney and Famer, 2011), and the accessibility of training and professional development support (Giat and Mitchell, 1992).

Creativity in teaching is a multifaceted phenomenon that is integral to the teaching experience. It manifests in various forms, from the adaptation and personalisation of teaching methods to the innovation of new pedagogical approaches. The study emphasises that teaching inherently involves novel actions and behaviours, even when established lessons are repeated, thereby highlighting the dynamic nature of the teaching process.

Creativity is particularly vital during the early stages of a teaching career but is experienced in extremely diverse ways. It fosters a sense of engagement and motivation, allowing educators to navigate the complexities of their roles with greater enthusiasm and leading to more innovation.

Despite the acknowledged importance of creativity, the study reveals several challenges and constraints that inhibit its full expression in university teaching. Institutional structures and disciplinary norms are routinely perceived as burdensome and to impose limitations on creative endeavours, restricting opportunities for novel ideas to flourish. Recognising the need for constraint, this paradoxical relationship between convention and creativity underscores the need for a balanced approach that encourages innovation while maintaining academic rigour.

The "recognition deficit" (or "interpretive contrast") is another significant aspect of creativity in teaching. Many educators underestimate their creative potential, which may be a limiting factor in terms of the realisation of innovative teaching practices. However, it may also be the case that whilst external recognition may include *creative* labelling, the creative act may be perceived as no more than application of logic and convention.

This study highlights a complex relationship between teacher identity and creativity. For most educators in universities, teaching is an extension of their primary professional expertise rather than a standalone vocation. This unique context poses challenges for developing a strong teaching identity, as many faculty members do not initially see themselves as teachers. The solution here is simple; reconsider the imposition of labels and allow "accountants who each accountancy" if "accountancy lecturer" feels problematic in any way. Career trajectories in higher education are ultimately marked by significant variability, influenced by factors such as discipline, institutional culture, and individual aspirations. This heterogeneity necessitates a flexible approach to professional development that accommodates diverse pathways and supports educators at different stages of their careers.

Chapter 6 described the application of this theoretical framework in the development of changes in approach to accredited taught programmes in learning and teaching in higher education.

## Chapter 6 – Application of the theoretical framework

### Introduction

This chapter describes how the research findings and theoretical framework developed through this study can inform constructive operational changes, have, and are being applied in practice. The aim in this study being to develop and operationalise insights capable of more effectively fostering creativity in teaching, both in the structures that support teaching and in teaching practice, primary areas of focus include teaching qualifications and professional development programmes for teaching in higher education.

Whilst the most significant problems confronting teaching may be beyond the scope of teachers alone to resolve, the overwhelming majority of these nevertheless intersect with or otherwise influence experience in practice to one extent or another. Whilst it is unsurprising to find evidence of the general draining effect of coping with suboptimal experience, it is interesting to consider the variability of professional journeys and perspectives by context, and the implications of what related insights mean for the professional development and ongoing support for teachers.

As highlighted in the opening chapter, problems confronting educational systems range from the quantitatively uncontentious to the qualitatively more nuanced. All nevertheless define specific contexts of creative possibility and potential as much as they constitute obvious barriers to the same ends. Systematically, the challenges of teacher recruitment and attritional aspects of teaching experience indicated by the data provide for perhaps the most fundamental. Steps required both to encourage individuals to aspire towards teaching responsibility and to sustain their presence in teaching, require both strategic change in operational conditions, but also define opportunity for change of approach in the structures supporting those new to teaching.

### Teaching qualifications and continuing professional development in higher education

As highlighted in the introduction of this study, teaching qualifications and frameworks of continuing professional development are key points of focus in terms of intended application of insights from this study. A key facet of educational systems and the UK higher sector specifically, in common with most UK universities, the institutional context of this study is one that supports credit-bearing and Advance HE-accredited teaching qualifications typically completed as work-based learning programmes over defined periods of registration typically

early in career. Reference to and reflection on direct experience and inexperience with these programmes feature significantly in the research data.

Recognised as critical for improving higher education, there is considerable evidence validating the efficacy and importance of structured approaches to professional development for teaching quality and student outcomes (Gibbs and Coffey, 2004; Knight et al., 2006; Laurillard, 2012; May and Bridger, 2010; Postareff et al., 2007). A 2020 report by the International Consortium for Educational Development (ICED) highlights the continued and universal need for structured professional development to address diverse learning environments (ICED, 2020).

In the UK, organisations such as Advance HE play a pivotal role in shaping teacher development through frameworks like the Professional Standards Framework (PSF). The PSF offers a structured pathway for educators to enhance their practice and achieve professional recognition (Advance HE, 2011). Research suggests that the PSF not only improves teaching quality but also boosts educators' confidence and career progression (Cheng, 2014). Nevertheless, challenges do remain. Resource and capacity constraints, competing institutional and role priorities, and resistance to change, can hinder programme effectiveness as evident in the conclusions of this study and the wider literature (Roxå et al., 2008).

Recently completing a process of redesign, revalidation, and reaccreditation of teacher development programmes at Aston with Advance HE, a series of adjustments have been made in direct response to the findings in this study. These adaptations are ultimately pedagogical but fall into distinct areas of operational approach, indicative content, subtle reframing of programme ethos and emphasis, and underlying changes in approaches to management and interaction with the barriers between the safety of the programme and the risks and challenges of early career teaching experience.

### Operational approach

Firstly, given the profoundly individualised perspectives and experiences in teaching highlighted in this study, a significant implication for teaching qualifications and continuing professional development programmes for teaching is the issue of configurability and personalisation. Noting in particular the divergent and dynamic relationship between creative self-efficacy and creative agency, and the significance of early career experiences for subsequent teaching trajectories, the extent to which experiences and practices are mediated and scaffolded is particularly

relevant for creativity and teaching identity. Consequently, the approach to how our teacher development qualifications begin has been subject to careful re-evaluation and redesign.

Drawing from both experience in supporting teaching programmes and specifically from the findings in this study, the first change has been to implement a formal Personal Tutorial system, and to inaugurate in-person introductions and dialogue as a formal component of the programme induction process. Implemented as the formal focus of activities in the secondary week of the programme, the objective has been a) To send a clear message regarding the personalised and individualised potential for study on the programme, and b) to afford opportunity for immediate engagement with issues and matters arising from the Induction Day workshop activities and themes of discussion.

Emphasising the value of diversity of perspective, experience, expertise, and approach more explicitly in the opening workshop session, a groundwork is established to normalise disclosure of any and all participant perspective; from reluctant, cynical, and/or otherwise elsewhere prioritised conscript, hyper enthusiastic escapee of otherwise mundane primary work circumstances, to the more anxious and uncertain. The primary change driven by this study has been to shift the emphasis more directly towards individualised needs of our participants. The induction day workshop and initial personal tutorial meetings were explicitly highlighted as being designed to support the start of getting to know the programme, each other, and to highlight the value, legitimacy, and distinctiveness of individual experience and perspective.

For tutors, the objective of induction day is now to establish the programme as a space safe for participants to be their authentic selves. For Personal Tutor meetings, the aim is established to ensure that participants have this experience reinforced and for more nuanced conversation to begin about their professional and personal context, aspirations, and perspectives of teaching. Configurability is embraced alongside scaffolded approaches to co-create a set of protocols for programme participation with participants.

### Ethos and emphasis

Always operated in a quasi-standard way, consideration was also given to the wider issue of regulatory alignment and governance. Unique as a postgraduate programme in that it is open only to university staff and postgraduate research students undertaking some teaching responsibilities, there has always been a balance sought between affording participants the associated rights and opportunity to have the full student experience, with recognition of

participants' primary responsibilities and status. In other words, whilst we engage formal module evaluation and student representation, we also recognise that departmental needs in terms of supporting fee-paying students or external projects will always be the main priority.

Consequently, we have maintained a balance between regulatory formality and more flexible collegiality, particularly with respect to participation in taught workshop sessions and with respect to assessment deadlines.

Whilst the rationale for this approach is unchanged—we could never countenance PG Cert assignment deadlines compromising or otherwise undermining participant support for their students—there has been reflection on the wider impact of this ethos of flexibility. The key challenge being the inevitable use of this flexibility, particularly where study in programme is experienced as a distinctly secondary priority, consideration has been given to strengthening the parameters and value of more formalised approaches. Difficulties in programme representing opportunities for creativity, the revised approach seeks to manage the balance between assuring safety for participants in study, with appropriate rigour necessary to ensure participants are not able to avoid all challenges in study.

Furthermore, recognising the range of participant perspective, whilst maintaining an explicit focus on a communities of practice approach, more active focus on specific disciplinary contexts has been integrated. For participants engaging with professional identities that may be more challenging to relate to teaching, greater attention has been given to how teaching practices and teacher perspectives articulate with wider professional roles and experiences. Relating in part to the wider question of balance between support for practical skills such as classroom craft, with expectation for academic rigour and evidence-informed approach, careful attention has been given to ensuring participants have multiple options for how, and in what depth and detail, they are able to engage. For example, this means affording sufficient opportunity for key topics and themes to connect actively with practical frameworks for development of practical skills, but also ensuring connection with relevant scientific theory in the literature in relevant domains including psychology and neuroscience. Significant attention has been given to ensuring that participants have points of reference in study that reflect conventions that resonate with constituent disciplines.

In addition, whilst there has always been reference to pedagogical thinking and reference to aspects of PG Cert curriculum and design in study, more detailed consideration has been given to the implications of 'teaching teachers to teach'. Referring explicitly to 'breaking the 4h wall',

specific aspects of underlying thinking are now more actively identified and considered both during taught sessions and through supplementary information and study activities. Participants are actively encouraged to “break their 4<sup>th</sup> walls” as a conceptual approach to their own reflective practice.

Finally, significant consideration has been given to the focus on the Professional Standards Framework (PSF, 2023). There being a tendency for thinking to drift towards ‘fitting in’ to the dimensions and descriptors, and for preeminent focus on professional identity in teaching, specific attention is now given to professional identity in teaching.

#### Approaches to creativity

Perhaps the most significant change in the programme is the approach to creativity. A defined half-day workshop in the programme for many years, focus in study to date has been purposefully generalised but also explicit in focus. Reflecting on the findings in this study and the reality that the discourse of creativity can prove challenging with respect to established conceptions of professionalism and the primacy of convention over the unconventional, approaches to and focus on related topics have been revised.

Firstly, application of Bob McKim’s 30 circles exercise (McKim, 1972), an activity which frames opportunity for consideration of elements of design thinking including fluency flexibility, elaboration, and originality (Guilford, 1967), is now implemented within the first hour of the programme’s induction. Notionally an engaging ice-breaking activity to expose participants with an immediate but constructively coordinated ‘test’ prior to the first coffee break and opportunity for social networking, the activity requires participants to generate as many different doodles as possible on a sheet of small circles under strict time constraints. Providing the example of two dots and a line to transform a circle into a face, colleagues are then immediately challenged to respond. Inviting participants to share their responses for wider consideration, the activity serves to highlight several factors relevant to teaching and to creativity. These typically include commonly shared experience of the constraints of uncertainty or of doing the wrong thing (“Am I allowed to draw outside the circle?”), active temptation to look left and right at how others are responding, but evident reality that some produce more responses than others, some produce more distinctive or original ideas, some produce more detailed responses, whilst others incorporate greater diversity and variation between ideas.

Sharing and discussion of individual responses affording opportunity for participants to introduce themselves and their disciplinary context, the relief and relaxation following the deliberately heightened emotional stakes of a 'test', coupled with the frequently amusing and irreverent responses to the activity, invariably leads to laughter and smiles. Repetition of the same activity following discussion enabling participants to focus on improving an aspect of their response, the first experience in study is one of heightened anxiety through uncertainty, recognition of potentially inhibiting effects of educational practices, diversity of disciplinary perspective, tensions between innovation and convention, but also potential for development of creativity. Conclusion of this activity leading into the first coffee break, the activity also provides participants with something to discuss. The deliberate nature of this being disclosed with participants following the break, the activity also affords early opportunity to highlight the significance of design thinking for teaching.

The aim of the 30-circles activity and subsequent catered coffee break is ultimately to break the ice by controlled heightening and then lowering of tension. It enables tutors to address any initial social and/or disciplinary anxiety, to frame personal introductions, and to afford the first opportunity to step outside the moment and to reflect on the pedagogical approaches involved. The structure of the initial 90 minutes of the day also affords opportunity for tutors to watch participants respond to an unfamiliar challenge, how they behave and interact, how openly they share, and how they respond to the test itself. It is designed to feel relaxed and playful, to build trust and sense of psychological safety quickly, but is planned carefully and specifically to establish a way into the programme, with each other, and with the tutors.

More generally with respect to creativity, whilst defined focus in a workshop session has been retained in the redesigned programme, more explicit focus on disciplinary context has been developed a) To situate the focus on creativity in relatable or familiar research domains, b) To extend and improve accessibility of the lexicon (E.g., problem identification, problem solving, design, innovation, enterprise), and c) To scaffold further opportunity to reflect on personal approaches and perspectives.

A general shift in emphasis and approach has been inaugurated in the programme with respect to the metacognitive aspects of teaching and creativity. Recognising that for the majority of participants that both constructs may represent uncomfortable and unfamiliar more than accessible or meaningful ideas, careful attention has been afforded to scaffolding approaches

for participants to find their own approach and their own perspective with which they do feel comfortable in approaching the unfamiliar.

Given the underlying challenges of time and resources, and recognising the predominance of time as the key factor of constraint in personal creativity, the balance between practical training and theory has also been refined. Specific focus on how to respond to change, unfamiliarity, and challenge, being foundational, defined practical training is now also embedded more directly in study.

Finally, some quite deliberate changes have been implemented with respect to approaches to assessment. Changing defined format to open format requirements, specific decisions have been taken to shift the emphasis on flexibility and challenge. Whilst some example approaches are of course outlined, assessment specifications now present an additional layer of complexity and challenge.

### Application summary

Whilst the changes implemented in teacher development programmes at Aston will take time to evaluate fully and are being subjected to more detailed study, the findings from this research have informed subtle but nevertheless significant changes in emphasis and approach in two key respects. Firstly, whereas previously there was a potentially counterproductive focus on 'becoming a teacher', the approach now involves a more subtle focus on situating and integrating teaching responsibilities within broader conceptions of professional self. Secondly, for creativity, whilst reference remains explicit, a broader lexicon of problem solving, inventiveness, and adaptability, is now applied along with a closer alignment of focus with defined disciplinary contexts.

## Chapter 7 – Summary and conclusions

### Introduction

This concluding chapter describes final reflections on the outcomes of the study and consideration of the implications for the future of teaching. Part post-script, the chapter also explores how the context of the study has changed through the study and the implications of emergent factors relevant to the underlying themes of the study.

### Creativity and education

That education can be acknowledged as the “foundation for better jobs and better lives and the cornerstone for more inclusive and resilient economies and societies” (OECD, 2025), yet continue to struggle generally and to languish specifically “at or near its lowest levels in 50 years” (Kraft and Lyon, 2024) in some sectors, either reflects an increasingly hyperbolic social discourse and misplaced concern, a further collective act of bewildering negligence as evident in other areas of human endeavour, or the most important and most pressing challenge facing humanity. Problems in education and their implications are either exaggerated, face obvious but as yet unenacted solutions, or reflect a meaningful, complex, and intersectional creativity deficit.

Whilst the discourse of crisis is of course contested in almost every case, whatever the ultimate reality and timescales available to address identified problems confronting humanity, it is at least possible, if not likely, that the most significant of these could prove to be substantive and rely on new ideas from individuals yet to start formal education as either student or teacher. Indeed, the less urgent given problems prove to be, the more likely this outcome is. Considering both *Sliding doors* (Michell, 1998) and “Butterfly Effect” scenarios (Lorenz, 1963; 1983), there is therefore heightened potential that the right teacher will not find themselves in the right educational system, with the right student/s, in their respective best frames of mind, or with the foundational capacity to respond creatively enough either to a given moment in learning or to wider challenges and changes. If education is, or could possibly be vital for our existence, change might therefore be critical.

We might be lucky. Incremental adaptation may prove to be a sufficient response and issues of sustainability could be resolved by further effort alone. Challenges of teacher recruitment, retention, and complexities of pay and conditions could swing back in favour of teaching simply through more accelerated erosion of opportunity or conditions in other competing sectors. Collective political energy and will could change and focus investment in ways that transform the standing and operation of education as an integrated, adaptable, and aspirational career. Equally, the significance associated with formal education systems as a determining factor in human survival could be vastly overestimated and inconsequential. After all, it is now, as it always has been the case, that the overwhelming majority of what and how people learn, and where people are most creative, will occur outside formal education systems. It is also the case that educational systems have weathered innumerable periods of challenge and change to date and may likely simply do so again. Beyond realisation of the most serious of existential threats, the function and operation of educational systems is so deeply engrained and embedded within socio-economic structures that persistence is almost inevitable, irrespective of efficacy.

There are, ultimately, macro, meso, and micro level facets to any consideration of creativity in education. Macro-level encompassing issues of impact value and societal need, meso-level including issues of policy, regulation, institutional and disciplinary context and culture, and micro-level relating to the distinctiveness of individual context and events. Whilst primarily focused in this study on educational creativity at the micro-level in this study, meso and macro level aspects are also relevant and intersectional. The wider context frames institutional circumstances, whilst institutional circumstances mediate and moderate individual circumstances.

The granularity of individual teacher experience and perspective in universities is the most significant emergent factor in this study. The distinctiveness of higher education compared with other sectors being recognised from the outset, the significance of teaching responsibility by happenstance rather than deliberate career choice was nevertheless underestimated. Whilst many who teach in university do so having made a deliberate choice to apply for a role with explicit related responsibilities, many also inherit or absorb teaching tangentially via other professional journeys. The time invested in considering what it means to be a teacher can sometimes be measurable more closely by minutes rather than years. The overwhelming majority also begin their teaching without formal higher education teaching qualifications, much less a lead time of intentionality towards such an end.

This study highlights how under-preparation can afford challenging but dynamic opportunity for creativity, but can also lead to creative effort being focused in different ways. For many, early career urgency, and the absence of certainty about how best to proceed with a given area of teaching responsibility, falls within a “zone of proximal development” (Vygotsky, 1978), or “Goldilocks zone” of creative possibility (Wilson, 2022) and can initiate a positive creative trajectory. For others, exposure to broadly similar teaching experiences can prove counterproductive, and ultimately lead to a negative creative trajectory in teaching.

How comfortable it feels to be a teacher can be a significant factor in how those who teach approach teaching. However, whilst identifying strongly and positively with that professional identity does of course have natural reason to correlate strongly with positive outcomes in terms of both endeavour and impact in practice, so does difficulty with and even active resistance to teaching as a sense of professional self. Initial enthusiasm and scepticism both also correlate with creative decline and disillusion.

Equally, whilst participation with university teaching qualification is overwhelmingly experienced in constructive ways, it can lead to unintended consequences. Affording a scaffold to mitigate for some of the more challenging aspects of early career teaching experience, participation in related programmes also removes the opportunity for creativity in isolation. The very aim of a communities of practice approach being to mitigate the risk of colleagues feeling “cornered” or without support, contrast between collegiate enthusiasm when completing teaching qualifications with subsequent lived professional experience in teaching, is a prominent emergent theme in the data.

For most, support and scaffold are critical in early career teaching. For some, this is only just enough to mitigate for extremely uncomfortable professional experience. For others, teaching simply jars against other core identities or contrasts too greatly with foundational professional experiences to be embraced fully, irrespective of whether completing formal teaching qualifications or not. For many, teaching qualifications become a fond but distant memory of creative agency in teaching as the stifling reality of teaching careers subsequently unfold. Some arrive in university teaching more prepared, and indeed more willing than others. The challenge for teaching programmes is therefore multifaceted and complex. In terms of creativity in teaching, the implications for the professional development and qualification of teachers are significant. Quite simply, for inauguration and maintenance of a positive and sustainable creative trajectory in teaching, the granularity and distinctiveness of individual need may be infinite, and variance within those needs diverse and often counterintuitive.

Whilst processes of realisation will always involve ambiguity, the wavefront of creative resolution is always more detailed and defined. In teaching, and higher education specifically, we know what the problems are. Creativity is most definitely required, but some of the underlying problems also lie beyond the locus of influence or control of the individual teacher. As evident in the closures of programmes and departments across the UK higher education sector during this study, there is no creative potential in a recently vacated office or an empty classroom, and limited institutional control over the favourability of teaching careers facing issues of vulnerability related to direct competition of available alternatives. Wider attrition of teachers from universities represents a factor that should be of significant creative capacity concern for universities. Requiring not inconsiderable creativity in negotiating viable exit strategies, dissatisfaction in teaching can be a significant determining factor in reducing the level to which creativity is applied in teaching and instead diverted towards other ends. How people feel as teachers may matter less significantly for how creative they are in their teaching but is most certainly matters for how they experience teaching and the extent to which they invest and persist.

Whilst specifically focused on higher education, there is, nevertheless, evident transferability in this study in terms of the teaching profession more generally. A contrast between intended student experience in study and staff experience in supporting these aspirations being a challenge shared across most global education systems, creativity is nevertheless inherent in educational practice both in teaching and in learning. This will always be problematic, but creativity cannot occur under any other circumstances.

### The future of teaching

This study has been developed through a significant and increasingly dynamic period of transformation and change in higher education. There are, at the end of the study, only signs that this pace of change continues to accelerate. Noting from the outset of the study the challenging position of the sector and of educational systems more widely, the future of teaching if anything looks even more uncertain.

Perhaps most significantly, acknowledging many related aspects amongst a range of problems requiring creative resolution, the study nevertheless concludes without defined reference to generative artificial intelligence (AI) as a factor of significance. Justifiable in the context of this study due to the timescales, AI is nevertheless emerging as a factor of profound significance to all questions considered in this thesis, and fundamentally so for the future of teaching and learning.

Applying a range of tools and technologies in the research for this study, the entire process would be conducted differently, and with profoundly different philosophical and strategic perspective if started from here. I read, coded, and managed research data substantively independent of software tools for analysis or reference management, and entirely independent of AI tools. It is inconceivable now that any comparable study could be undertaken without involvement and application of AI.

Deployment of AI-based student support solutions in universities has accelerated significantly during the period of this study. Arriving via updates to existing universities software systems, whilst there remains an ongoing debate about ethics (Nguyen, 2025), the EDUCAUSE Horizon Report (2024), for example, which profiles key trends and emerging technologies shaping the future of teaching and learning, emphasises the transformative potential of AI in educational settings (EDUCAUSE, 2024). Similarly, the Organisation for Economic Co-operation and Development (OECD) discusses the role of AI in education, highlighting its potential to enhance learning experiences while also addressing challenges related to ethics and inclusivity (OECD, 2023). Others note the evident potential risks and uncertainties.

Bostrom (2014), for example, highlights AI's existential risks, stressing the importance of ensuring AI alignment with human values. In education, this translates to concerns about AI-driven learning tools influencing student behaviour in unintended ways, possibly amplifying biases or misinformation. Russell (2019) argues that AI must be designed with human-compatible objectives in terms of effectiveness but also transparency and accountability. Crawford (2021) discusses AI's embedded biases and how these biases manifest in algorithmic decision-making. She warns that educational AI tools might disproportionately disadvantage certain student demographics, exacerbating existing educational inequalities (Crawford, 2021). AI has been shown to reflect racial and gender biases. This concern extends to AI-driven proctoring and surveillance tools in education, which have been demonstrated to unfairly penalise students based on ethnicity or gender presentation (Buolamwini & Gebru, 2018). Zuboff (2019) also raises concerns about surveillance capitalism and how AI-driven educational tools might exploit student data, whilst Selwyn (2020) critiques the uncritical adoption of AI in classrooms, emphasising the need for educators to maintain pedagogical control. The problem is, of course, that control of classrooms remains a perennial challenge in and of itself. What people elect to use AI for, much less what AI becomes, may already have already achieved an escape velocity beyond regulation and human control.

The European Commission (2021) has advocated for stronger AI governance, particularly in high-risk applications like education. Their proposed regulations highlight the need for AI transparency, accountability, and human oversight in educational settings (European Commission, 2021). Furthermore, UNESCO (2022) calls for global AI policies in education that prioritise equity and ethical AI use. They stress the importance of training educators to critically assess and implement AI tools responsibly (UNESCO, 2022).

Navigation of the uncertainties, risks, benefits, and implications of AI is rapidly becoming the most important theme in the discourse of educational practice, with the implications for human creativity at the heart of this debate (Wilson and Brown, 2024). Already at the stage where AI can notionally pass a series of established professional exams (Arredondo, 2023) and outperform all but the most capable humans in some tests of creativity (Koivisto and Grassini, 2023), the future of teaching is most certainly one in which technology features more significantly. There is now a new possible future in which there is barely, if any teaching profession at all. Questions of creativity in teaching and the teaching of creativity remain as pertinent as ever.

### Final thoughts and reflections

That assumptions and perspectives may be challenged through research is perhaps the point of research. This study was developed fully cognisant of the variability and nuance of individual experience and distinctiveness of disciplinary context in teaching and learning. Whilst what is most surprising to the researcher may not be what is most relevant in the context of a research study, coincidence between the unexpected and meaningful insight nevertheless warrants at least more detailed consideration.

Reflecting on the analytical perspective brought to this study and the evidence base, that teaching could be anything other than an aspirational, enriching, and constructive career-path represents a clear risk if also a profession critical for human survival. The precise level of associated risk, steps required to mitigate for this, and necessary creativity, may be contentious, but creativity itself rarely is when realised.

As outlined from the very start of this thesis, creativity is inherently valuable, but dependent on problems to determine the extent of this value. Creativity can be constrained by circumstances but is ultimately dependent on precisely the same variables to enable creative potential. For teachers and teaching in higher education, tensions between structures and conceptions of convention, and the uncertainty of the unfamiliar and the unconventional, mean that creativity can be interpreted as counter to prevailing professional norms.

The development of creativity in teaching is objectively a worthwhile and potentially vital endeavour. Fittingly for the context of this study, one of the most important answers as to how to work constructively towards this aim, is counterintuitive; Talking more about or more explicitly seeking to develop creativity may not just be ineffective, it may be counterproductive. Whilst there are of course layers of net-negative creative inhibitors that might be addressed systematically, perhaps the most important constrictive step forward is to stop talking about both creativity and teaching identity and instead focus on the addressing the conditions and affordances necessary to realise creative potential.

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