Living and narrating neoliberalism: an autoethnographic bricolage exploring a lifetime of learning, teaching and teacher education.

Thesis submitted in part-fulfilment of the requirements of the PhD in Education

106814 words

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Abstract

This autoethnographic study explores my experiences of learning and working within what I broadly characterise as a neoliberal education system, from the 1990s as a school pupil to the late 2010s as a teacher and teacher-educator in England. I document experiences of learning and teaching my specialist subjects – Mathematics and Statistics – within educational and professional spaces that I have found to be counteractive to attributes that I hold in high regard: an inquisitive and sceptical disposition towards quantitative measures in education, and a desire and freedom to understand, develop and assert one's own epistemological perspective.

The thesis is structured around a bricolage of written vignettes, each followed by reflective re-readings and analyses with reference to various theoretical frames such as socialisation as a professional teacher, empowering forms of knowledge, and power relationships within communities of practice in education.

Themes within the vignettes and analyses include the narrative construction of: conflicts between my conceptualisation of critical scholarship and statistical literacy; teaching and assessing in highly quantified, anti-critical educational contexts; claiming aspirations towards a moral-ethical orientation to education within the constraints and pressures of neoliberal performativity; reflections on affective aspects of teacher identity and conceptualising notions of success as a learner and educator.

A second level of analysis draws threads from across the bricolage to explore how I have learned to understand and frame my experiences through a lens of neoliberal ideology despite efforts and assertions to the contrary. Analyses also incorporate a methodologically reflective element, contemplating the development of my vignettes and approach to narrative expression as a potentially self-defensive, confessional or cathartic response to troubling, conflicting experiences. The thesis concludes with summative consideration of threads arising from the preceding bricolage of analyses, identifying facets and implications of neoliberal ideology, and the irreducible complexity of affective subjectification across my life course, which emerge through the layers of analysis and narrative structure of the research thesis itself.

Acknowledgements

I wish to note my sincere gratitude to Professor Jerry Wellington, Emeritus Professor Pat Sikes, Dr Harriet Cameron, Dr Darren Webb, Dr Sal Consoli and Dr Simon Warren for their invaluable support and advice during the various stages, iterations and examination of my research over so many years. I am also deeply grateful to the countless colleagues and friends who have given of their time to support me in the completion of this thesis, and to those who have entrusted me with the various opportunities and responsibilities I have been able to explore in this work. My thanks to the student teachers and others who contributed to earlier versions of my research activities, even though the journey towards this thesis has taken such a different direction to what I had originally intended. Finally, thanks to my wife, who has been a constant companion and support throughout my studies, and to my daughters, who may have arrived long after I embarked on my thesis research but have nonetheless sustained and inspired my endeavours.

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Section 1: Introduction, aims and framing my study Chapter 1: Introduction

This doctoral thesis is based on an autoethnographic study of my experiences as a learner, teacher and teacher-educator in mathematics, statistics and social research methods. Drawing on a decade of study, my thesis is a direct response to difficulties I faced when attempting to develop and articulate a self-referential understanding of my epistemological positioning as a lecturer and postgraduate research student, where I became concerned that aspects of neoliberal rationality in my societal and institutional surroundings (Cahill, 2018; Peck, 2010b) may have become internalised and profoundly influential on my sense-making and identity as a learner and professional educator (Bamberg, 2011). Building from this problematic, I proceeded to write vignettes exploring my experiences of various educational contexts, utilising a bricolage of theoretical frames (Chapter 3) to **describe** the presence of neoliberal rationality within stories spanning several decades of my life (Chapters 4-12). I subsequently reflected on threads which emerged across my readings of the bricolage I constructed (Chapter 13) to **analyse** the functioning of governmentality through affective subjectification (Valero et al., 2019; Zembylas, 2022, see also Chapter 2 of this thesis): how I learned to frame, understand and feel about my experiences and guide my decision-making through a lens of neoliberalism. The thesis concludes (Chapter 14) with my summative argument that the neoliberal rationality inscribed throughout the storying of my life, and my growing understandings of governmentality and subjectification, are irreducible in their multifaceted complexity in alignment with a variegated conceptualisation of neoliberalism (Brenner et al., 2010; Peck & Theodore, 2007, see also Chapter 2 of this thesis). A further contribution of my research also draws on my methodologically reflexive approach to this study, advocating for the combination of autoethnography and bricolage (Chapter 3) as a way of developing the self-referential awareness which seemed so elusive and problematic at the beginning of my research journey, with the potential to disrupt neoliberalism as a hegemonic rationality (Chapter 14).

The origins of my autoethnographic study

Initially planned in the early 2010s as a research project with student teachers, exploring and measuring the development of their statistical literacy skills, within a few

years my studies unfortunately reached an impasse. I became increasingly troubled by facets of the student teachers' experience which seemed to speak to matters beyond their local influence and personal educational development. While I remained ostensibly interested in matters of critical statistical literacy as a definable, teachable framework of skills and dispositions (e.g. Wild & Pfannkuch, 1999, explored further in Chapter 2), my discussions with supervisors, colleagues and students frequently leaned towards perceived structural, organisational constraints such as limited curriculum time and performance-oriented pressures which might preclude the possibility of nurturing or practicing such critical pedagogical ideals (Alderton & Gifford, 2018; Frankenstein, 1983; Jenlink, 2016). Towards the mid-2010s (Table 1, below), I became drawn to the term **neoliberalism**, frequently appearing in articles which seemed to speak to my emerging concerns (e.g. Berlant, 2011; W. Brown, 2011; Clemitshaw, 2013; Hardyn, 2014; Peck, 2013; Zambrana, 2013). I became preoccupied by how strongly these authors' depictions of tensions between critical pedagogical potentialities and organisationally enforced, narrowed performance-related outcomes seemed to resonate with my feelings and experiences as a contemporary educator.

Reading broadly around studies of neoliberalism in education prompted me to reflect on my earlier life; as I read papers raising the notion of neoliberalism as a deleterious influence across educational contexts and roles (e.g. schools and universities as a learner, working professionally as an educator), this provoked my recall of similar spaces where I felt that actions, outcomes or discourses may have been aligned with such ideological principles. I felt compelled to explore why my reading of "neoliberalism" in the contemporary literature seemed to speak to such a wide variety of educational contexts I had experienced over the course of my life. I also wondered how a lifetime of such occurrences might be influential on the ways in which I have come to make sense of myself and my endeavours. This introspective turn became the final direction of my doctoral study, proceeding circa 2017, through the construction and analysis of vignettes depicting the experiences that I had felt compelled to reflect upon in response to my readings around neoliberalism in education.

I will continue my introduction by exploring the development of my lines of inquiry, reflecting on how the initially difficult journey towards the final form of my thesis

is illustrative of the complex interplay between educational, methodological and sociopolitical ideas which have become the foci of my research.

Problematisation: a troubled journey towards my doctoral research

My research gradually evolved over several years into a more introspective piece than I had originally intended, writing and analysing a series of vignettes depicting experiences of learning and working within what I have come to characterise as a neoliberal education system, from the 1990s (as a school pupil) to the late 2010s (as a teacher of mathematics and subsequently a teacher educator) in England. Later chapters of my thesis still draw on earlier iterations of my doctoral studies such as work with student teachers in mathematics, and intersectionality with statistics as the academic field that I have become most attached to throughout my life as a learner, researcher and educator. However, in the final form of this study I take a more inwardly focused approach than I had initially expected. By analysing a series of self-written vignettes, I explore how I have come to speak of **myself**, **my** experiences, and **my** values as a learner and educator. In adopting an autoethnographic approach, I seek to understand how my depiction of various moments and contexts from my life might reflect powerfully formative influences, facets of dominant ideologies and organisational structures that may be identifiable within, and perhaps beyond, the instances I have explored (Bochner, 2016; Ellis & Bochner, 2006; Huber, 2022; Pitard, 2019).

My turn towards autoethnography was a substantial shift from what I had originally anticipated for my doctoral studies, reflecting a significant reframing of my positioning and aims as a researcher. Sandberg & Alvesson (2011a, 2011b) identify a trend in social science research over the forty years preceding their own publication for researchers' aims and questions to frequently be framed as addressing **gaps** in their respective fields – the exploration of previously under-researched areas or the identification of completely new matters of interest – rather than realising the potential for research questions to intentionally focus on challenging existing understandings. I therefore consider their notion of "problematization... through a dialectical interrogation of one's own familiar position, other stances, and the domain of literature targeted for assumption challenging" (Sandberg & Alvesson, 2011a, p. 252) as a helpful guide for the development of my thesis, focused as it is on my evolving perceptions of institutional and societal contexts that have surrounded me throughout my life.

Year	Research focus and activity
2014	Exploring statistical literacy, primarily quantitative design (structural equation
	modelling with psychometric data) with complementary qualitative elements.
2015	Confirmation review and beginning data collection: pilot questionnaires and
	focus group activities with student teachers.
2016-2017	Transition to second supervisor. Exploring neoliberalism, problematising
	formative influences on my positionality in first phase of research.
2018	Exploring bricolage and autoethnographic methods. Writing vignettes.
2019	Revisiting vignettes, re-reading and identifying frames for first layer of analysis
	("codas" – see Chapter 3).
2020-2022	Reflecting on threads of learning across the bricolage of writings.
2022-2024	Transition to third and fourth supervisors. Drawing together threads of analysis
	and writing up thesis for examination.

Table 1: Timeline of my doctoral research

A few years into my doctoral studies, around the mid-2010s (Table 1, above), I began to be drawn to the terms "neoliberalism", "governmentality" and subsequently "subjectification" in contemporary literature as concepts which seemed to resonate with my research interests (e.g. Harvey, 2011; Krautwurst, 2013; Ball & Olmedo, 2013; Furlong, 2013, as I will explore further later). However, these are also terms that I noticed being debated as potentially problematic, the former being challenged as an over-used and vague ideological descriptor (e.g. Hardyn, 2014; Leach, 2015) and the latter being identified by recent authors as under-theorised (e.g. Byrne, 2017; Chowdhury, 2022; Leyton, 2022), particularly in the personal-experiential sense which had become quite central to my research interests. While I will expand on my exploration of these issues in later chapters, I foreground the integration of a **problematic** view of these terms here as an important guiding principle for my approach in this study.

Living and learning in neoliberal contexts

A gradual problematisation of concepts over the years of my doctoral studies reflects what I feel to have been a more fundamental, personal struggle to reconcile conflicting thoughts on the nature of knowledge as it is framed and constituted within the Higher Education context I study and work within. I therefore briefly explore how the development of my research design is deeply intertwined with the substantive problems (and problematisation) that have become the foci of my study.

My deliberation over the direction I should be taking in my research has included consideration of competing influences on the form that my doctoral studies may be allowed to take, the nature of the research problems which might be seen as a legitimate basis for doctoral study and my employment as an academic in my own right, and therefore what the product of my research process should be. Upon enrolment as a doctoral student about a decade ago, my plans for research centred on adherence to "the rules of writing according to the styles and nuances of [my] particular academic discipline" (Lindsay, 2015, p. 185) and therefore – in line with my preconceptions and previous postgraduate studies in Education – I found myself repeatedly "slip[ping] into logical positivism and artificial scientific realism" (Kincheloe & Berry, 2004, p. 115) in dissatisfying, troubling ways. Much like the outcomes-based schooling that I experienced in my earlier life, and will explore in greater detail later, my naive view of the prominent messages from centres of power in higher education seemed to reflect Lindsey's sentiment that doctoral research may be strongly and narrowly oriented towards the completion of a satisfactory written thesis within a strict, often funding-related, time limit in a manner which undermines the potential for critical reflection and more holistic development as a researcher (2015). Building on my background as a mathematics graduate and statistics educator, a mostly quantitative study with easily accessible human participants within my professional setting seemed to be the most feasible and rapid way of completing a doctoral study, taking precedence over the critically reflective potentiality or problematisation of extant theories that the final qualitative, autoethnographic form of this research seeks to embrace.

My thoughts on being compelled towards a utilitarian, outcomes-driven vision of doctoral study prompted me to reflect on how this seemed to be represented in broader organisational and ideological debates that I became more aware of. For example, formal guidance provided to researchers in my contemporary professional context of Higher Education seemed to have a similarly constraining tone, with the product or impact of research taking precedence over intellectual substance: academic researchers funded by Research Councils UK are tasked with maximising "the **demonstrable contribution** that excellent research makes to society and the economy" (n.d., para. 4, my emphasis) rather than a clear foregrounding of "rigor and complexity in educational research" (Kincheloe & Berry, 2004) as being valuable in their own right. My initial plans for doctoral study were indeed guided by imagined outcomes rather than intellectual growth. seeking to quantitatively measure characteristics of student teachers with a view to using the findings of my research to inform professional practice in teacher education in some way. I initially viewed this as a reasonable compromise of practical concerns alongside a pragmatic view on what kind of output from my studies might be most acceptable to academic supervisors and examiners. However, this was also just one of a growing

number of instances where I noticed how personal, internal tensions around my purpose and aims as a researcher appeared to be resonant with wider discourses surrounding my work in higher education. Further still, and highlighted in the quote above, as I began to explore these concerns in earnest, I repeatedly met the conspicuous presence of economic imperatives and their influence on the value of intellectual endeavour, which seemed worthy of further interrogation.

Engaging with the early stages of my research while harbouring a personal disquiet around these constraints steadily grew from a trivial distraction to a substantial, troubling area of concern. I began to see my initial quantitative design for my doctoral study as a site of "apparent mismatch between [my] individual beliefs and values and wider institutional discourses and cultures" (Biesta et al., 2015, p. 624) which, increasingly throughout my search for relevant literature, seemed to be attributed to forms and implications of contemporary neoliberalism. Authors such as Grant (2014) and O'Flynn & Petersen (2007), speaking of **neoliberal** influences in schooling and higher education, respectively, enflamed ponderings that my (mis)conceptions about acceptable, worthwhile forms of knowledge could be one deleterious consequence of my lifetime as a subject within neoliberal political systems (Chowdhury, 2022; Leyton, 2022; Zembylas, 2022).

Moving to the latter half of the 2010s, as I reformulated my research to address my personal concerns more directly, I became increasingly drawn to publications exploring tensions between critical academic and pedagogical possibilities and powerfully countermanding societal and institutional influences, typically depicted as influences of neoliberalism by authors such as Ball (2008, 2012, 2015, 2016). I therefore began to write short vignettes about the experiences I felt might be most relevant from my time as a learner and educator, those which seemed to resonate with the concerns I had started to explore in the literature. In particular, I was drawn to educational spaces which might undermine the development or realisation of academic or professional attributes that I hold in high regard should they run counter to an idealised neoliberal view: an inquisitive or even sceptical disposition towards quantitative methodologies (Wild & Pfannkuch, 1999) and a desire to understand, develop and hold one's own epistemological perspective in lieu of more constrained, outcomes-focused visions of education and research. I consider the final form of my research – turning to autoethnography from my earlier quantitative design – to be a disruptive, counter-neoliberal exercise, yet I am mindful that a naïve perception of normative legitimacy in educational research may have also been shaped by the very influences I seek to understand in the manner Jordan & Wood describe as "becoming assimilated and subordinated to an emerging hegemony of neo-positivist mixed methods and evidence-based research" (2017, p. 149). I will therefore continue to outline the core principles that I embrace within this work: how my writing of vignettes and application Kincheloe & Berry's bricolage (2004) form the basis and structure for the thesis that follows, addressing some of the dilemmas and contradictions that seem to have pervaded my academic and professional careers.

In my initial exploration of statistical literacy teaching, I deliberately limited my focus to others within my immediate sphere of activity and to employ a linear process of quantitative empirical inquiry (Lewis-Beck, Bryman, & Liao, 2004; L. Cohen et al., 2011) collecting some psychometric data, analysing and then reporting what I had found. However, my desire to be a critically reflective researcher meant that such reductive, pseudo-objective and broadly positivist approaches to inquiry quickly led to a sense of dissatisfaction. I became concerned that my epistemological positioning may become incoherent, contradictory or unfaithful to my personal beliefs if I failed to acknowledge my personal history in an authentic, meaningful manner as a centrally important aspect of my methodological decision-making (Kimpson, 2005b; Kordes & Demsar, 2023). Statistics teaching and statistical literacy matters to me, and I believe that there is immeasurable potential for such skills to shape citizens' awareness, democratic engagement and political activity (Desai, 2013) throughout their lives. As described earlier, these personal attachments and motivations around the subject are issues which seemed to elude my earliest efforts at inquiry, and I would contest that formative influences on such aspects of professional endeavour and learning are worthy of investigation even though they seemed diametrically incompatible with my initial hopes for a somewhat simplistic, linear and predominantly quantitative study. However, even as I began to identify a need to develop a more personally authentic and fulfilling direction for my thesis, my lifetime of involvement and experience with the subjectmatter at the centre of my concerns meant that simply attempting to acknowledge and explore my positionality seemed impossible to disentangle from the substantive focus of my research.

Within a few years of part-time doctoral study, attempting to address the complexities of my epistemological position became profoundly "disempowering" attempts at researcher-reflexivity (C. Hughes, 1998, p. 281). Again, these difficulties directed me to contemplate a more fundamental concern, integral to the nature of my evolving epistemological and methodological thinking while also providing direction on how I might develop the aims of my thesis:

We no longer know what genuine knowledge is, if it is not "objective" in the scientific sense. We can only imagine that the alternative must be subjective and arbitrary ideas that are really not worthy to be honored with the name of "knowledge" at all. (Franke, 2015, p. 451)

Franke's words speak to just one of the ways in which Kincheloe & Berry's bricolage, along with their extended writings on critical educational research, provided me with a credible, fulfilling approach to the process of scholarly inquiry: to change what I had previously understood of "what counts as research... [to transform] grand narratives and discourses, and traditional procedural research methodologies" (2004, pp. 105–106), to allow me to "bring the social, cultural, political... discursive and pedagogical together with the emotional, affective, value-laden and normative" (2004, p. 34), allowing for an exploration and expression of my "genuine ... involved knowing" (Franke, 2015, p. 451). Despite working professionally for many years as a Statistician with an array of interests and experiences in quantitative social research, my doctoral thesis is therefore an entirely qualitative autoethnography, embracing subjective representations of lived experience as the very foundation of my research.

Taking an introspective approach: essential questioning of the self

Franke creatively captures my need to draw together affective dimensions of learning and experience within my research as "poetic epistemologies" (Franke, 2015, p. 451), bringing attention to what I feel is a deeply personal desire to "know", to be able to articulate my "knowing" and – as an educator – to guide or inspire others to a position where they might do the same: "Knowledge, humanly considered, is valuable in proportion to the intensity and richness of the relationships it enables" (2015, p. 454). Therefore, over the first few years of my study, as I moved away from the linear empiricist approach and into the bricolage of this thesis, I embraced the relevance and importance in foregrounding elements of my lived experience that have provoked recall: poignant moments of distress or epiphany, those where I have been most or least fulfilled in my endeavours. These are where I "know" what it has meant to be statistically literate, or to

have felt empowered in the assertion of my own epistemological position, or to have been prevented from doing so.

In challenging myself to take a personally guided and self-focused approach to research, I am mindful not to underplay procedural rigour in the collection and analysis of other data that I will claim to be informative – elements of my bricolage occasionally call on more traditional sociological methods such as my experience of conducting interviews, questionnaires, focus groups, observations in the earliest version of this research study (Appendix 2) - but my findings from each of these activities are only supplementary to what is centrally my story. This thesis based on my own experiences and learning, utilising the voices of others as a means of developing my knowledge further "through the profound experiential encounter with the other... A personal, conscious introspection occasioned by a bewildering encounter away from home" (E. Cohen, 2016, p. 183). The form and focus of this thesis is therefore deliberately personally situated, guided by my interests, priorities and experiences while attempting to be evermindful of a "plurality of socializing influences [which] can be seen to have engendered complex and sometimes conflicting dispositions" (Ingram, 2011, p. 301). However, while I am keen to assert the credibility in my work by clearly limiting my claims in-line with the extent of the data that I create or collect, Curtis suggests that even an introspective study should, by its very nature, speak to the aforementioned "socializing influences" in a profoundly meaningful way because "our being-in-the-world is always a being-withothers" (Curtis, 2013, p. 26).

Curtis' reasoning draws on the work of German philosopher Martin Heidegger and the concept of Dasein, where I find Haugeland and Rouse's interpretation to be particularly helpful in relating it to my own thinking: "a living way of life that **incorporates** an understanding of being" (Haugeland & Rouse, 2013, p. xxi, my emphasis). Though more expansive exploration of Heidegger's philosophy is beyond the scope and purpose of this thesis, and it is very much Curtis' recent reading that is most closely relevant to my own work (2013), applying these broad definitions of Heidegger's Dasein to my own reflections I feel that the learnings drawn from exploring my understanding of "being" do indeed relate to matters of society, ideology and culture that are justifiably beyond my own sphere of existence, and are integral to the nature of this thesis as an expression of my contribution to knowledge. Beyond being the literal focal point of my narrative vignettes and analysis, a crucial facet of my thesis is the recognition that my journey before and throughout my research process has been genuinely disconcerting in an existential sense: "Heidegger had a very clear understanding that Dasein's essential questioning of itself necessarily meant a questioning of the people or community to which Dasein belonged" (Curtis, 2013, p. 26). I am therefore drawn back to Curtis' application of a broadly Heideggerian view to the matter of "essential questioning" of oneself: an introspective account and analysis of my own experiences must be inherently intertwined with an interrogation of aspects of the "people or community" surrounding me in the various places and times that I recall in my writings; an examination of my social belonging or positioning is an examination of the society in which I am situated.

Beyond being in alignment with my autoethnographic methodology, Curtis' account also captures how unsettling I have found the experience of questioning the direction of my own life and decision-making within the social and political world that I have lived and learned within at a fundamental level:

The particular world in which Dasein takes up home is what Heidegger calls a referential totality, where each thing, idea, or practice makes sense and has its use only with reference to other things, ideas and practices ... all are structured and arranged according to the 'what for' and 'in order to', i.e. a set of reasons, aims, meanings and values that organise their relation to each other. These are in turn arranged according to specific ideals, practical objectives and ends that refer to the ultimate 'for the sake of', i.e. Dasein's questioning of itself and its interpretation of what is good and what is right. (Curtis, 2013, p. 21)

The notion of a referential totality is reflected in how my thesis, and my personal line of thought to this point, draws together academic fields of study (statistics, education studies) with my identification of neoliberal ideology permeating the organisational relationships of "aims, meanings and values" (Curtis, 2013, p. 21) throughout my various experiences as learner and practitioner; I have been confronted and deeply troubled by varying and sometimes conflicting purposes of the knowledge or skills that I might acquire, apply or teach, and commensurate tensions between influences, motivations and implications of my actions. Curtis goes on to explain how a contemporary neoliberal society nurtures individuals to strongly align their notions of "good" and "right" with the expedience of personal gain (2013) and although I find this to be a logically coherent argument in line with my later exploration of neoliberal ideology (Tuinamuana, 2011; Leach, 2015), of greater personal significance is how it seems to describe why my

introspective, personal questioning before and during this formal study has been so alarming and emotionally difficult to navigate. I am attempting to query the very foundations of the structures that I have learned to use to make sense of the world that I know:

Any breakdown in the system of references and assignments can induce an experience of profound anxiety, [a chain reaction]... Because each element of the system is a bearer of significance there is potential for the world of references and assignments to collapse into meaninglessness. (Curtis, 2013, p. 21)

I feel that Curtis' depiction of a "profound anxiety" (Curtis, 2013, p. 21) is not at all an exaggeration, and resonates quite strongly with my time during - and I would anticipate beyond - this study. As described earlier, I have been drawn towards a recognition that my position and knowledge of the world is so contingent on the structures that I have learned and worked in throughout my life that critically reflective researching within the neoliberal academy will almost inevitably cause me to question the very foundations of my ontological and epistemological frameworks (C. Hughes, 1998; E. Cohen, 2016; Winkler, 2018) and - as an educator - the very core of my life's work.

There is much complexity and debate around the specifics of Heidegger's thinking that goes beyond what I feel is necessary for my own work (e.g. Martin, 2013). However, one further point that I would raise as important for setting the foundations for my study is Curtis' conclusion that "what is important about Heidegger's analysis is that disturbance to our world can also commit us to engage even more strenuously with what we know and what we ordinarily do" (2013, p. 21). This reassures me that there is at least some sense behind the disquiet I have described so far but also in the seemingly persistent nature of these issues across my life-course. As will become apparent in the later chapters of my thesis, where questioning of my professional and epistemological direction has emerged throughout my life, I have nevertheless seemed compelled towards norms of activity that align well with the principles of neoliberalism, and perhaps even more so when I consciously try to "disturb" my understandings of the respective societal or institutional surroundings in which I have been situated.

To summarise, I recall a sense of frustration when trying to disentangle aspects of student-teacher learning and development from the socio-political contexts that surrounded them in the earliest iterations of my study. Such an attempt seems, within my more recent perspective on my research process, to have been naïve at best and, at worst, unreasonable and dissatisfying. Throughout the development of this thesis, and before settling on a "bricolage" research approach or the use of vignettes, I have felt compelled to reflect on my experiences, even if I seemed unable to guide the totality of my personal or professional actions within such a framing, often instead relying on recourse to the relative safety of conformity as an idealised neoliberal subject (Bacevic, 2019; Sofritti et al., 2020; Leyton, 2022). Initially, my tendency towards introspection was in alignment with my training in the social sciences and a desire to take a broadly interpretivist position in my research, albeit misaligned with what I had come to understand of my professional endeavours as described above. Further, over the years leading up to this study, I became quite comfortable with acknowledging researcher-positioning, one's own influences on the interpretation of data and voluntarily surrendering any claims to objective measurement of phenomena (Bevir & Rhodes, 2012). I will therefore explore my philosophies of knowledge and research in greater depth later, expanding on how they have become a more central and substantial pillar in my study than I had initially anticipated.

Involved knowing, bricolage and autoethnography

Before moving on to the practical business of developing the literary foundation and methodological approach to my thesis, I reflect further on how, building on Franke's depiction of involved knowing (2015), Kincheloe & Berry's bricolage (2004) embraces the complexity of my multifaceted relationship with the neoliberal social spaces that I seem to inhabit, such as my experiences of schooling and my socialisation as a teacher (Lacey, 1977). Crucially, a central tenet of bricolage as an approach to educational research is an explicit recognition of how "power tacitly shapes what we know and how we come to know it" (Kincheloe & Berry, 2004, p. 17) by deliberately repositioning and rereading texts through alternative theoretical frames to illuminate otherwise unspoken disparities: "When the bricoleur fails to do so, positivistic rationality remains encoded in the reading, writing and interpretation of text" (Kincheloe & Berry, 2004, p. 165). Kincheloe and Berry's words resonate with my longstanding personal feelings of injustice and disappointment at striving to be a critically reflective and statistically literate individual while feeling as though I am forcibly shaped by a society and profession that favours reductive measurement of "dimensions of academic labor ... captured by quantitative performance indicators" (Sutton, 2017, p. 625), with "positivistic rationality"

therefore permeating my day-to-day existence. This is an ironic turn perhaps, given that part of my current professional role is to teach others to conduct quantitative research, yet in my thesis I wish to understand something that is not easily quantifiable: the complex, personal, affective implications of a life-history of reliance on quantitative measurement of educational performance. The dangers of slipping into linear empiricism are captured neatly again by Kincheloe & Berry's words: "there exists the potential of linearity of monological research to reproduce the political, economic, historical, and intellectual issues and problems that led to the study in the first place" (Kincheloe & Berry, 2004, p. 105) and thus my use of bricolage methodology seeks to resist and disrupt such a potentiality.

Progressing to the practical matter of how my thesis is constructed, Kincheloe & Berry describe the use of a "Point-of-entry-text", or POET, "as the pivot, the axis for the rest of the application of the bricolage" (2004, p. 108). In my study, the POET consists of the various chapters of my autobiographical narrative, a series of vignettes depicting incidents from my life that I have deemed critical to my overarching research interests. Each chapter contains one or more of these short writings which document some aspect of my life in learning and teaching. These then lead to an autoethnographic analysis, applying a selected theoretical frame such as Foucauldian power and subjectification within neoliberal spaces (e.g. Foucault & Senellart, 2008), approaches to socialisation as a teacher (Lacey, 1977), social constructivism and implications for statistical literacy learning (e.g. Vygotskiĭ, 1978), the prominence of neoliberal principles operating through a Bourdieusian habitus (Bourdieu & Passeron, 1990; Postlethwaite & Haggarty, 2012a) and so on. On a related presentational note I am also drawn to the use of direct quotation of key sources – as may have become apparent – as a deliberate dialogic device, not only positioning my work within an academic context but framed as an explicit intertextual negotiation between my own authorial voice and of those cited (Hassel, 2016; Lombardi, 2021). I am mindful that such an approach is judged by some to be exhibiting "low intertextual flexibility" or otherwise poor academic practice (Badenhorst, 2019, p. 267), thus the form of my commentary surrounding quotes is intended to capture the intentional nature of my negotiation of ideas with, or deference to, cited authors and how this (in)forms my line of argument, all in line with the broader narrative approach that I have taken in the substantive body of my research (Stanley, 2010).

Each autobiographical vignette depicts an episode in my life that has been formative, to some degree, towards my present, uneasy stance as an educator, continually re-evaluating my position on statistical literacy teaching and learning in relation to the influence of neoliberal norms on my activity as a social being. A key factor in the selection of the occurrences that I fictionalise in my vignettes is emotive provocation, invoking Franke's notion of "involved knowing" (Franke, 2015, p. 600) to identify moments I feel most strongly compelled to make sense of and to learn from. The chapters of my thesis will therefore proceed with a short review of concepts raised in the extant literature that have become so prominent and, often, emotionally troubling in my recent experiences and reflections in educational contexts. This is followed by an overview of my methodological design, then moving to the chronology of my vignettes to guide the direction of the research narrative which follows.

Chapter 2: Literature Review

Defining core concepts and situating my study

In my preparation of a scholarly thesis fit for submission and examination at doctoral-level, policy at my Higher Education Institution (HEI) states that I am required to provide "evidence of systematic study and of the ability to relate the results of such study to the general body of knowledge in the subject", clearly demonstrating "the extent to which [I have] made use of the work of others" (The University of Somewhere, 2017, p. 41). Indeed, as a practicing HEI teacher in Education Studies, I am familiar with the broad traditions of situating one's research in relation to the extant literature but also, as Boote & Beile suggest, that the process of establishing a foundation of relevant theory and clearly situating my own study alongside the work of others is "even more important in education research, with its messy, complex problems, than in most other fields" (2005, p. 3). This is a point which again speaks to the challenges I have experienced so far in defining and bounding my inquiry, and my to turn towards bricolage (Kincheloe & Berry, 2004; Kincheloe, 2005) as a way of embracing and addressing the multifaceted and problematic nature of neoliberalism imbued throughout my life story. It follows that some references to secondary texts for methodological justification, along with the development of bespoke theoretical framings for each chapter, may be drawn upon across the elements of this thesis beyond these literature review and methodology sections. The purpose of such references to methodological and conceptual literature will align with the focus of the chapters they are placed within, and this early literature review therefore provides a foundational coverage of core ideas to be developed further in due course.

Kumar (2012) draws a helpful distinction between the use of secondary literature to provide "theoretical" and "conceptual" framings for research (pp. 39-40) which broadly aligns with my usage of bricolage to apply a range of theoretical perspectives later in the thesis. In this chapter, I explore some of the central concepts that form the basis for my inquiry but with a caveat: my intention here is to reach a compromise between the need for an informative, guiding base for the reader to understand my later work (Ridley, 2012; L. Cohen et al., 2011) while also preserving the space for meaningful "learning on the doctoral journey" (Wellington et al., 2005, p. 30): my contextually situated understandings should continue to be seen as emergent and evolving throughout the research process. I will therefore be adopting Bell's slightly more tentative suggestion for this preliminary review of literature, that "it should provide the reader with a picture, albeit limited... of the state of knowledge and of major questions in the subject" (2006, p. 100) while acknowledging that the "multiple purposes" of recourse to secondary texts (Ridley, 2012, p. 24) will be somewhat distributed across the chapters of this thesis. What follows, therefore, is a brief introduction to the following central threads which bind this study:

- 1. Aspects and varieties of neoliberalism;
- 2. forms and effects of neoliberalism in educational contexts;
- 3. statistical literacy, hermeneutics and constraints on critical thinking and critical pedagogies in the neoliberal context;
- 4. affective aspects of life, work and learning in a neoliberal frame;
- 5. tensions between dualistic reasoning, involved knowing and freedom of epistemological positioning.

Aspects and varieties of neoliberalism

I begin by considering how I might define neoliberalism, initially in ideological terms but recognising that I will also need to explore how recent publications in the field of Education Studies conceptualise situated instances or aspects of neoliberalism that are most relevant to my research (Brenner et al., 2010; Denzin & Giardina, 2017; Jessop, 2019). Leach suggests that even "the term 'ideology' is itself problematic and contested... but for the present may be loosely defined... [as] an interconnected set of ideas that form a perspective on the world [and that] have implications for political behaviour" (2015, p. 1, citing Flew, 1979). My starting point is to therefore briefly summarise some ideas that have been posited as the hallmarks of neoliberalism as a central tenet of social and political organisation in England and globally over the past few decades (Harvey, 2011) while being mindful of the problematic, contestable nature of such an exercise. I am also drawn to Leach's suggestion that ideology is constitutive of a particular world view as a further device for reflection later, for example as a contrast to the emergence or construction of facets of my identity as an individual (Zittoun & Gillespie, 2015) or my deliberative positioning on political, ideological or professional matters (van Manen, 1994; Rodriguez & Magill, 2016).

Over the years of study towards this thesis I have consistently found neoliberalism to be a problematic, widely debated and sometimes vaguely defined term. Furthermore, I have also come to recognise how the emergence, development and contestation of my understandings of neoliberalism are likely to be intertwined with the substantive and introspective nature of my research. At this stage of my writing, I turn to Tilly's suggestions on what I should expect by attempting at least an initial definition for further exploration and exposition later:

Although definitions as such cannot be true or false, in social science useful definitions should point to detectible phenomena that exhibit some degree of causal coherence – in principle all instances should display common properties that embody or result from similar cause-effect relations. (Tilly, 2016, p. 100)

It is my aim is therefore to define neoliberalism in a way that will be useful for my later analyses, helping to identify the "common properties" (Tilly, above) of the varied and sometimes misaligned explanations provided in the extant literature without assuming completeness or applicability of any singular definition right away. As I will reflect upon further at the conclusion of this chapter and into the next, I will operationalise core concepts from my review of the literature in initially descriptive terms to assist in the detection of facets of neoliberalism in my later chapters, though I will also contemplate develop an analytical level to my work though the structure of my thesis (Chapter 3).

Brenner et al. (2010), Peck (2010b, 2010a, 2013) and Cahill (2018), each exploring shortcomings of previous' authors usage of neoliberalism in reductive or overly generalised ways, suggest that it will be necessary for me to identify the context and boundaries to the forms of neoliberalism which are most relevant to this specific piece of work. Brenner et al. are particularly direct in their criticism that "neoliberalism has become something of a rascal concept – promiscuously pervasive yet inconsistently defined, empirically imprecise and frequently contested" (2010, p. 184). I will therefore proceed by exploring suggestions which recent authors seem to support as relevant to a broad, foundational definition before returning to the problem of the historically and geographically situated varieties of neoliberalism which may be most applicable to my own experiences and analyses. Only then will I consider if it might be possible to draw these together under the unified definition of variegated neoliberalism (Brenner et al., 2010; Peck & Theodore, 2007).

Market rationality

Wendy Brown (2011) provides a broad outline of neoliberalism that I have become quite familiar with over several years of reading and reflection on the subject: "A governing social and political rationality that submits all human activities, values, institutions and practices to market principles. It formulates everything in terms of capital investment and appreciation (including especially humans themselves)" (W. Brown, 2011, p. 118). I find Wendy Brown's use of the term rationality particularly important for supporting my exploration of marketisation as a way of making sense of such a breadth of contexts, from the organisation of institutional spaces that I have experienced (e.g. sites of employment and learning) through to some of the fundamental ways that I may be expected to make sense of my own and others' endeavours and achievements.

As I noted in the earlier introductory chapter, one of the starting points for my line of inquiry was noting the appearance of national economic imperatives as I reflected on aspects of my personal and professional life in education and thus leaning heavily towards utilising marketisation as a way of beginning to make sense of my experiences and hence neolibreralism (D. Hall & McGinity, 2015; Holloway & Brass, 2018; Tolofari, 2005). I have found myself reflecting on several instances where the economics in question are quite specifically financial in nature, explicitly foregrounded by institutional discourses such as the importance of gainful employment as an outcome of education (Noonan & Coral, 2015) or positive monetary impacts of research outcomes (Becker et al., 2021; Viggiano, 2019). However, Davis and Walsh (2017) warn against taking too simplistic a view that the appearance of such interests are to be read as inherently neoliberal without due consideration, highlighting the importance of "distinguishing" financialisaton from neoliberalism" (2017, p. 27). One commonality between financialisaton and neoliberalism would be Davis and Walsh's framing of both as global movements which have been deeply impactful during the course of my lifetime, the UK presented as having become one of the most highly financialised economies in the world during this timeframe with effects transcending national, local and even personal spheres of activity "through a mixture of personal credit card and mortgage debt" (A. Davis & Walsh, 2017, p. 30), However, a narrowed view of neoliberalism as being synonymous with financialisaton would fail to account for concurrent developments which should instead be seen as lying beyond neoliberalism and being quite specifically financial in

nature, such as the creation of capital within "the financial system through debt-credit creation and financial engineering... financiers create and deal with multiple capital equivalents that are ignored by economists" (A. Davis & Walsh, 2017, pp. 31–32). Working backwards from Davis and Walsh's cautions then, my own work will need to consider market rationality applied to multiple forms of capital beyond but not excluding the financial, such as human capital (Paltrinieri, 2017) and the commodification and trade of knowledge (Ball, 2012; Charteris et al., 2017; Giroux, 2005, 2011, 2020; D. Hall & McGinity, 2015) while recognising that there will remain areas of contemporary life which lie beyond the explanatory possibilities of neoliberalism itself.

Together, these definitions prompt me to treat the potentially totalising nature of neoliberalism with caution, despite considering how marketisation might be applied to "all human activities" (W. Brown, 2011, p. 118) as a key descriptor of relevance within my contexts of interest: I will trace aspects and implications of marketisation of academic enterprise and practice across the educational experiences and spaces that I recall as a learner, teacher, researcher and teacher educator. Indeed, when exploring the literature for this review, I have found there to be a wealth of existing research and writing in this area, with authors in the field of Education Studies frequently identifying the application of an economic model of competitive, self-regulating, free market rationality to all matters of educational endeavour and governance, often in deleterious terms (Ball, 2003, 2012, 2015; Apple, 2006; Peck, 2010a, 2010b; W. Davies, 2017; Bacevic, 2018, 2019; Giroux, 2020).

Drawing together these examples from the literature, I notice that although a focus on marketisation seems to be a common way of introducing neoliberalism in educational research papers, Peck (Peck, 2010a, 2010b, 2013) advises that these signifiers alone will be a necessary and helpful starting point for my work, but not sufficient in themselves to be asserted as symptomatic of neoliberalism per se:

By its nature, as an oxymoronic form of "market rule," neoliberalism is contradictory and polymorphic. It will not be fixed. Perhaps, instead, the closest one can get to understanding the nature of neoliberalism is to follow its movements, and to triangulate between its ideological, ideational, and institutional currents, between philosophy, politics, and practice. (Peck, 2010b, p. 5)

While several authors have identified features of neoliberal ideology in the educational policy reforms and the schooling systems that I have been a part of during my lifetime

(Connell, 2010, 2013; McGregor, 2009), I am nonetheless minded by Peck (Peck, 2010a, 2010b, 2013) to retain a view of neoliberalism not "as some extraterrestrial force, reorganising political-economic history in its own image and predetermining outcomes on the ground" (2010b, p. 34) but instead, as per Wendy Brown's definition of neoliberalism (2011, above), that exploring the interplay between the philosophical, political and the social – and in my case, how my experiences and understandings of such issues may be constituted in my vignettes – may be more productive than claiming to identify a singular origin or causal direction to such movements.

Continuing to consider the pursuit of marketisation as central to neoliberal ideology, I am drawn to Mudge's (2008) succinct yet compelling conceptualisation of neoliberalism as:

an ideological system that holds the 'market' sacred ... Neo-liberalism is rooted in a moral project, articulated in the language of economics, that praises 'the moral benefits of market society' and identifies 'markets as a necessary condition for freedom in other aspects of life (Mudge, 2008, p. 710, quoting Fourcade and Healy, 2007, p. 287)

I find Mudge's definition intriguing not only for how strongly they position market rationality as utterly sacrosanct within neoliberalism, but for how the expansion of marketisation across domains to be so fundamentally important for the realisation of freedoms and fulfilment in a capitalist society, a line of argument that has been identified across socio-political discourses of the UK during my lifetime (Dutta & Basu, 2018; Peck & Theodore, 2007; Zambrana, 2013). For the purposes of my study then, I recall moments where I feel as though I have become acutely aware of "institutional arrangements" (Connell, 2010, p. 23) which seem to facilitate and enforce the expansion of marketisation, such as the central positioning of "quantitative facts about the current state of competitive reality, such that actors, firms or whole nations can be judged, compared and ranked" (W. Davies, 2017, p. 191) and the "commodification" of knowledge (e.g. Denzin & Giardina, 2017; Luxton & Braedley, 2010). I will expand on each of these key concepts later but, for now, I recognise that it is my positioning within educational institutions as a learner and educator, and hence my exposure to their organisational, governing "arrangements" that my vignettes are built around. Furthermore, I will consider how and when I have felt compelled to identify with market rationality as so powerfully important for my personal success and survival as I have grown as a citizen and educator, and to what extent I consider myself to have been subject to such affective

mechanisms (Anderson, 2016; Chowdhury, 2022; Valero et al., 2019; G. Williams, 2017; Zembylas, 2022).

Embedded neoliberalism

In attempting to recognise the pervasiveness of market rationality, seeming to be so deeply embedded within the societal and political spheres that I have been aware of during my life, Cahill suggests that I "resist the temptation to counterpose this against elements of neoliberalism which supposedly entail disembedding of the economy from its social foundations" (Cahill, 2018, p. 982). Slobodian (2018) and Olssen (2020) go further still with their warnings, that beyond reimagining the possibilities of personal freedoms within a marketised existence, neoliberalism has sometimes been misrepresented as a freeing of markets to operate unimpeded by social or political influence altogether. Olssen therefore suggests that in such a conceptualisation:

the market becomes a thing capable of being liberated by agents, instead of being, as neoliberals themselves believed, a set of relationships that rely on an institutional framework... markets are not natural but are products of the political construction of institutions to encase them. Markets buttress the repository of cultural values that are a necessary but not sufficient condition for markets' continued existence (Olssen, 2020, pp. 6–7).

Cahill's analysis of Hayek and Polanyi's seminal economic works of the mid twentieth century similarly identifies strikingly complementary facets of neoliberal ideology emerging from their otherwise strongly politically counterposed treatises, leading to their conceptualisation of "embedded neoliberalism... a malleable set of concepts underpinning neoliberal ideology, rather than the chief causal agent in the neoliberal transformation of states and economies" (Cahill, 2018, p. 977). I feel that Cahill's conceptualisation of embedded neoliberalism is very much in alignment with my aims and autoethnographic methodology, supporting my thesis that writings about my life that have been prompted by reflection on market rationality may help me to make sense of "social relations, regulations and norms that facilitate their functioning" (Cahill, 2018, p. 981), even though such mechanisms may transcend local, national and global spheres. I therefore turn to Marginson & Rhoades who, in their critical exploration of previous neoliberalism studies, coin the term "glonacal agency heuristic" (a portmanteau of global, national and local) to "take us beyond the hitherto almost exclusive reliance on national policy and national markets" (p. 301). They see universities and indeed individual academics - my current professional role - "as global agents" (p. 301) who are influenced

by matters of globalisation including but not exclusive to neoliberalism, and therefore suggest that I may see my situated vignettes as spaces of "local resistance to global patterns" (Marginson & Rhoades, 2002, p. 300). However, before moving on to specific mechanisms or technologies of neoliberalism which I might invoke in my writings and analyses later, a further implication of these definitions and problematisations of neoliberalism which attempt to conceptualise the interplay between local and wider contexts still requires attention, that of the historical, political and geographical situatedness of my own work and how this might frame the particular forms of neoliberalism that I may have experienced during my life.

Varieties of neoliberalism

Much of the research presented in this thesis is centred on recollections of my life in England from around the early 1990s onwards, I was born in the mid-eighties and began attending primary school towards the end of the decade, up to the late 2010s. Reflecting on my personal experiences with a hierarchical ecological model in-mind (Bronfenbrenner, 1979; Houston, 2017) complementing the aforementioned conceptualisation of embedded neoliberalism (Cahill, 2018), I think of my individual sphere of social and educational existence to have been situated within schools and workplaces which are themselves subspaces of the national cultural and political contexts of the United Kingdom: western, capitalist, democratic and – of rising prominence and clarity during the course of my life – neoliberal (Heywood, 2017). I therefore feel that it is necessary to consider how the spaces I have inhabited in this timespan may have been shaped by predominant discourses and modes of governance, how these may have been influential on my own activity within these spaces and, by consequence, my development and thinking as a learner, professional educator and researcher.

Brenner et al. explain that my lifetime has been in a historical period and national context of intensive neoliberalisation:

In the 1980s, the concept of neoliberalism gained prominence as a critical signifier for the 'free market' ideological doctrine associated with the programmatic writings for Friedrich Hayek and Milton Friedman, and operationalized by the audacious restructuring strategies of vanguardist politicians like Pinochet, Reagan and Thatcher (Brenner et al., 2010, p. 183)

Having been born during the time of the Thatcher government, my early life and education was situated precisely in this time of significant national reorganisation. Though the 1980s governments of Chile, The United States and The United Kingdom are presented above as prominent historical examples, Neoliberalism has subsequently been seen to transcended party-political lines in England and elsewhere in the world (Foucault & Senellart, 2008; Connell, 2010; Harvey, 2011; Chang & McLaren, 2018). Though Harvey (2011) and Kiely (2018) document the history of a formal theory of neoliberalism emerging over the early 1900s, my focus is therefore around the more recent prominence of neoliberalism that has been identified in the national politics of the 1980s onwards in the United Kingdom (Foucault & Senellart, 2008; Connell, 2010; Harvey, 2011). Over this timeframe, the course of my lifetime, the political leadership of the UK has shifted back-and-forth between centre-left and centre-right ruling-parties as viewed on a left-right "linear spectrum" (Heywood, 2017, p. 15) whilst remaining within the broadly capitalist-democratic frame of the mid-to-late twentieth century (Leggett, 2005; Noël & Thérien, 2008).

Despite apparent shifts in political leanings, neoliberal ideology has been identified as a common thread running through each of the UK governments of the past few decades, seemingly irrespective of whether leading figures and parties have identified as leftist or rightist in stance (Rowlands & Rawolle, 2013). This is a particular point of interest for my research not only as a prompt to think critically about my assumptions around the nature of neoliberal ideology and its position or potentially limited functioning in the political landscape surrounding my lifetime as a citizen of the United Kingdom, but also in highlighting where ideological rhetoric may not necessarily align with the actions or discourses that I have become aware of. Leach suggests that "there are tensions and ambiguities in all ideologies and the contrasting neo-liberal and neoconservative strands of Thatcherism" - chiefly characterised as contradictory aspects of social liberalism and governmental authoritarianism respectively - "have always provided a potential source of conflict" (Leach, 2015, pp. 75–76). With hindsight and with the benefit of these readings, I am therefore unsurprised to reflect that my concerns about ideological and experiential contradiction have been quite thought-provoking in my own line of inquiry in the first place, particularly where free market principles seem counterposed to mechanisms of standardisation or otherwise tightly controlling governance (Noonan & Coral, 2015; Rudd & Goodson, 2017). Leach, for example, continues their line of argument by contemplating tensions between neoliberalism and neoconservatism in the policy reforms of the 1980s which happen to be closely related

to my own research interests, explaining that then Prime Minister "Mrs Thatcher's approach to... the National Curriculum in Education were hardly inspired by [neoliberal] free-market ideas" (Leach, 2015, p. 76). I agree that the imposition of a prescriptive curriculum for schools seems quite strongly counterposed to a completely open and competitive market of alternative approaches (Kiely, 2018) but that this might instead be again seen as in alignment with Cahill's embedded neoliberalism (Cahill, 2018; Olssen, 2020). As I will explore later, by framing the education of future citizens as preparation for participation in the job market (Keddie, 2016; Keddie et al., 2011; Noonan & Coral, 2015) as opposed to, say, education for social justice (Chang & McLaren, 2018) or other critical pedagogical potentialities (Giroux, 2005), the nationally standardised curriculum can be seen as a supportive rather than contradictory institutional structure of contemporary neoliberalism in the UK "in which commodifying and market-constraining logics comingle and co-evolve" (Brenner et al., 2010, p. 189). Along similar lines, the provision of a standardised national curriculum also creates the necessary framework for national and international measurement and comparison of educational performance, again supporting the rollout and functioning of marketisation in this context (Bacevic, 2018; W. Davies, 2017; Dutta & Basu, 2018; A. Moore, 2005; P. Moore & Robinson, 2016). Interestingly, Peck suggests that reframing these types of concerns, where what might initially appear to be instances which are contradictory to neoliberalisation, can instead be seen as very useful, relevant sites for exploration in themselves:

Attempts to transcendentally 'fix' neoliberalism are destined to be frustrated, and for good reason... for all its doctrinal certainty, the neoliberal project is paradoxically defined by the very unattainability of its fundamental goal – frictionless market rule. Rather than the goal itself, it is the oscillations and vacillations around frustrated attempts to reach it that shape the revealed form of neoliberalism as a contradictory mode of market governance (Peck, 2010b, pp. 15–16)

I should therefore not see it as surprising or irrelevant to identify and explore spaces where a completely free-of-constraint expansion of market principles may seem impossible to fully enact in practice. Instead, as Hardyn explains, in alignment with Tilly's problematisation earlier, I have come to realise that my early attempts to identify a preferred, singular definition were inevitably complicated by the need to reconcile several complex facets of neoliberalism, including a recognition of neoliberalisation as being contingent on supporting institutional structures (Cahill, 2018). I must also draw this together with an understanding of a globalised or historically consistent view of neoliberalism with its inherently shifting, context-dependent manifestations:

Far from a stable ideology or programme, neoliberalism is defined by Ong... [as] 'an array of techniques centered on the optimization of life, neoliberalism migrates from site to site, interacting with various assemblages that cannot be analytically reduced to cases of a uniform global condition of 'Neoliberalism' writ large. (Hardyn, 2014, p. 213, quoting Ong, 2006, p. 14)

This supports my expectation that while the socially and personally situated cases I have chosen to write about in this study may have shaped the nature and features of my experiences and subsequent understandings of neoliberalism, these contexts should also be considered as situated historically, geographically, and politically (Brenner et al., 2010). Features which emerge in my later vignettes will therefore be evaluated for how they may be representative of neoliberalism's "array of techniques" depicted by Ong (as quoted by Hardyn, above) – the technologies of neoliberalism that I will explore in further detail later in this chapter – again in alignment with Leach's tentative definition of ideologies in general (2015).

Drawing the historical-political context of my lifetime together with Cahill's embedded neoliberalism above, Brenner et al. (2010) propose consideration of "variegated neoliberalism" as a way of describing "the proliferation of market-oriented regulatory projects across diverse contexts" (p. 203) to allow for "the possibility that neolibreralisation processes are simultaneously patterned, interconnected, locally specific, contexts and unstable" (p. 184).

Variegated neoliberalism

In my research I therefore acknowledge the multifaceted and variegated nature of neoliberalism explored thus far, and also that the autoethnographic focus of my work does indeed draw me towards governmentality, as Perryman et al. explain:

governmentality, a portmanteau word combining government and mentality or rationality... Governmentality is not just about national and local political control, but also refers to the self, so is also how and why the self shapes its own conduct in particular ways. (Perryman et al., 2017, p. 746, quoting Foucault, 2008, pp. 147-226)

Perryman et al. (2017, above) utilise Foucault's governmentality to explore how – through several technologies of neoliberalism that I will explore later in this chapter – teachers in the contemporary UK context may "be ruled by themselves, by becoming a truly reflective practitioner under the subtle persuasion of governmentality, dominated

yet free" (Perryman et al., 2017, p. 755). Such a depiction of internalised yet hegemonic neoliberal rationality resonates strongly with concerns which gradually emerge across the later chapters of my thesis. Brenner et al. helpfully go on to explain that:

The utility of this approach lies in its insistent focus on the inherently problematic, unstable practices of neoliberal governmentality, and on the flows of governmental technologies, rationalities and expertise that constitute the invariably messy assemblages within which such practices are (temporarily) embedded... the governmentality analytic usefully draws attention to the contextually embedded character of market-oriented forms of regulatory restructuring. (Brenner et al., 2010, p. 201)

As I will explore further in my methodology (Chapter 3) and in later chapters, my movement between a variety of contexts related to learning and teaching, and becoming increasingly aware and troubled by the impacts of various organisational arrangements which seem to share an alignment with the core tenets of neoliberal ideology, have been the core motivation for pursuing my line of inquiry. However, Brenner et al. (2010) also take previous authors from a range of disciplines to task for problematic conceptualisations of neoliberalism which fail to adequately address the simultaneous transcendence and evolution of neoliberalisation across national and global contexts with what they suggest are systematic, analysable relationships within a unified, if variegated, form of neoliberalism. They argue that a focus on governmentality and situated varieties neoliberalism, while of substantive interest in itself, fails to realise the role of "powerful, if not hegemonic, actors and institutions" in which neoliberal practices are "generally governed through macro-regulatory rules - for instance, modes of performance evaluation" (2010, p. 203). As I will explore later, while my vignettes will often be locally situated stories of my lived experience or related reflections, in many cases I allude to institutional frameworks and sometimes explicit governing or organisational structures and power relationships which form part of the English national context of my lifetime. As Peck argues:

Where there is utility, we maintain, to holding onto neoliberalism (weasel word, unruly signifier, and rascal concept that it undoubtedly is), it is as a prompt to find, specify and learn from adaptive processes, recurring patterns, constitutive connections – across sites, domains and registers, including those made in resistance. And the connective concept is a prompt, also, to tune into the shaping (and reshaping) of common sense, and to the often incremental drift of institutionalisation and normalisation. (Peck & Theodore, 2019, p. 255)

Peck's words helpfully captures the way I will therefore be utilising the term "neoliberalism" throughout my work as a signifier of Brenner et al.'s variegated, conceptualisation (2010), to be read with the understanding that I am neither implying

the existence of a singular, monolithic and global neoliberalism but equally that the individual chapters of my life and analyses therefore do not constitute distinct varieties of the neoliberalism either.

In order to address the shortcomings of purely governmentality-focused approaches suggested by Brenner et al., it will not only be permissible but necessary for my later chapters and the reflective threads that I draw across them to identify "family resemblances and cross-jurisdictional interconnections" (Brenner et al., 2010, p. 208) that I explore in my vignettes. Of particular relevance to the context of my work, and that I will seek indications for through my continual engagement with literature throughout my later chapters, would be an element of what Brenner et al. posit as the third wave of modern neoliberalism: "Increasing emphasis on long-range projects of market-driven institutional reinvention (e.g. education...)... reflexive remaking of policy regimes in tandem with now-consolidated, market oriented 'rules of the game' often through logics of inter-jurisdictional competition..." (Brenner et al., 2010, p. 212). Although conceptualisations of the forms and consequences of neoliberalism that have developed during this time continue to be varied and contested (Peck, 2010b; Rowlands & Rawolle, 2013; Hardyn, 2014; Kiely, 2018) it is possible to identify at least some commonly described features of how neoliberalism seems to have been represented in recent political and social history, prioritising those which are most relevant to the educational and professional foci of my research. A further consequence of this cautious and piecemeal approach to constructing understandings of neoliberalism would be that I do not expect easily, immediately identifiable singular moments or locations in my writings which capture neoliberalism per se. Instead, it may be possible to only describe the manifestation or construction of narrower aspects, principles or apparatuses of neoliberal ideology, with more sustained or substantial points of learning instead emerging over time, an element that I will return to in the next chapter as I explore the nature of the vignettes I have constructed for this study and the structure of my thesis overall. I can therefore move forwards by reflecting on neoliberalism's most recent presence in my life, permeating my current role as an academic teacher and researcher in Higher Education. Here, Ball presents a series of bleak implications of "Living the Neoliberal University" (2015, p. 258), resonating not only with my contemporary professional position but highlighting several of Peck's aforementioned neoliberal "movements" (Peck, 2010b, p. 5) that I will explore further as quite a central element of my lived experience of neoliberalism and the prompt for several of my later writings: performativity, subjectification and its seeming co-dependence on quantification of educational activity and outcomes.

Technologies of neoliberalism I: performativity and measurement

Attributed to Lyotard's seminal work theorising postmodern society (1984), put simply: "performativity is about performing the normal within a particular discourse" (Perryman, 2006, p. 150). Central to my concerns as an educator and educational researcher, performativity would therefore be the notion of acting up to the expectations of neoliberal ideological principles, working towards being a productive and competitive individual within the norms of formal education in the UK. This leads me to contemplate what precisely would constitute such contemporary norms within the neoliberal frame, and the mechanisms which might be in place to encourage, nurture, enforce or reward such performative behaviours. I turn therefore to Clapham et al. (2016) who incrementally build on the initial definition of performativity towards some practical implications of such a performative, competitive normative landscape, and the necessity of systematic measurement and comparison as the central guide for all activity, educational or otherwise:

Performativity is the 'optimisation of the global relationship between input and output' and requires the implementation of measurable indicators or regulatory mechanisms... so as to hold those within performative systems accountable, metrics are used to represent the efficiency of production against benchmarks and competitors. (Clapham et al., 2016, p. 761, quoting Lyotard, 1979, p. 11)

As I will explore further in later chapters, the specific notion of competitiveness is present as a purpose and guide for the actions and experiences depicted in some of my writings, and is drawn from the broadest of neoliberal principles described by Wendy Brown, earlier: "deregulation, marketization and privatisation of **all** public goods … the beginnings of casting of **every** human endeavour and activity in entrepreneurial terms" (W. Brown, 2011, p. 113, my emphasis). I have found the notion of competitiveness as a central organising principle of neoliberalism - typically around educational achievement in my field - to be quite useful for identifying how my individual concerns seem to be in some way aligned with a "neoliberal turn" (Smyth, 2017, p. 45) in local, national and even international contexts: competition within and between schools (Perryman, 2006; A. Wilkins, 2012; Loh & Hu, 2014) and even nations competing against nations in their educational performance statistics (Serder & Ideland, 2016; Adamson et al., 2017). Of further particular importance that I draw from Clapham et al.'s definition above is how competitive performance of this type seems logically and practically dependent on mechanisms for the assessment and comparison of relative value of different cases of interest. In the context of education, this would centrally position "assessment and examinations [as] the quintessential vehicle for individualising and responsibilising success and failure in relation to achievement" (Torrance, 2017, p. 83) reliant on predominantly quantitative measurement and comparison of educational performance (Reay & Wiliam, 1999; Kanes et al., 2014; Keddie, 2016). Thus I feel it becomes necessary to recognise the processes of creation or imposition of such mechanisms as a key component of neoliberalism beyond being just a set of broad principles but instead as a surreptitious yet seemingly exclusive way of redefining the purposes and nature of education entirely (Ball, 2003). For example, d'Agnese's (2019) exploration of neoliberalism in the context of education identifies it as:

an ideology permeating the social and educational space by which a peculiar vision of individuals, students and educational institutions is delivered [with a] strong emphasis on ongoing competition at all levels... **it presents itself, in a sense, as the only game in town.** Everything that falls outside the given register of performativity and competition is increasingly regarded as inconsequential. (d'Agnese, 2019, p. 700, my emphasis)

Even at this early stage of my work, this is a definition which resonates strongly with my motivations and interests in my inquiry. I am concerned by how particular measures of educational enterprise may have come to hold so much power over my own thinking along with the numerous individuals, social groups, institutions and nations explored in the literature and, crucially, how alternative visions of self and endeavour seem so forcefully rendered impossible to realise (Giroux, 2005; De Lissovoy, 2013). This leads me to two closely interrelated strands of exposition: how an idealised neoliberal subject may be defined, and which mechanisms may be predominant in the processes of subjectification that have been argued to be so powerfully influential (Foucault & Gordon, 1980; Foucault & Senellart, 2008; D. Taylor, 2010).

Technologies of neoliberalism II: subjectivity and subjectification

Watts warns against careless transposition of neoliberalism as a "political rationality and form of governmentality" (2022, p. 462) into mechanisms of individual or collective subjectivity, directly criticising several recent papers which, they argue, lack empirical support for such assertions. As an issue which my own study seeks to address directly, Watts' critique highlights the importance of maintaining a clear "distinction ...

between 'neo-liberal dispositions' and 'dispositions produced by neoliberalism'" (2022, p. 466, quoting Hilgers, 2013, p. 85), and a degree of "epistemic humility [which] has become increasingly rare in recent years" (2022, p. 468). One area where Watts' warnings are particularly challenging – and an issue that I will need to reflect on further towards the end of my thesis – would be in my recollection or construction of moments or mechanisms that I claim to represent subjectification as I have experienced or come to understand it. Again, my adherence to influences that I characterise as neoliberal will have taken rather different forms depending on my positioning within educational spaces, but with a common line of thought being that subjectification practices within associated systems of assessment and employment have been powerfully influential throughout my life (Felluga, 2011).

Byrne is similarly critical about recent works where neoliberalism is defined vaguely or inconsistently for their "failure to grasp the importance of processes of subjectification to the practical functioning of neoliberalism" (2017, p. 343) - again a central contribution of my own thesis - and proposes taking a Foucauldian view of government which "encompasses not only the traditional sphere of government linked to state institutions, but also the government of others beyond the state, such as... the government of the self" (2017, p. 348). As Taylor explains further: "for Foucault subjectivity is not a state we occupy but rather an activity we perform... shaped by institutions such as schools... as well as by the more general prevailing norms and values of the society in which we live" (2010, p. 173). Again building on the aforementioned marketised model of life that I have found to be so definitive of neoliberal ideology (e.g. Peck, 2010b), my perception of norms in education seems to have become centred on the expenditure of time, effort and often money in trade for a commodified form of knowledge – intellectual capital – which can then be bargained with for access to further opportunities, employment, commensurate levels of financial income and so on (Smyth, 2017; Giroux, 2020; Leyton, 2022). Continuing along these Foucauldian lines then, credentialism (D. Brown, 2001) and commodification of knowledge (Ball, 2012) inform individuals' practices of subjectivity as they are: "formed in and through relations of power... we therefore find ourselves confronted with the task of figuring out when and how we are enabled and when and how we are constrained" (D. Taylor, 2010, p. 173). I find this to be a very useful, and again personally resonant, implication of viewing subjectivity as a practice. Feelings of conflict and contradiction that I explore in later

chapters sometimes arise from recognising moments of personal enablement which are in stark contrast to the typically negative valence that I otherwise give to neoliberalism in broadly stereotypical terms, as Ball states: "we are not simply victims here, we are complicit, indeed we are sometimes beneficiaries" (2015, p. 259). My active, sustained work towards the attainment of academic credentials and an alliance to a narrowed, instrumentalised outcomes-focused engagement with education has simultaneously enabled my access to employment and the opportunity to study at doctoral level while also becoming a site that I will come to frame as constraining the possibilities of educational endeavours for myself and others.

Situating the actions and interpretations of experiences described in my life writings as the practices of an entrepreneurial self (D. Taylor, 2010; Edmond, 2017) seems therefore to be closely aligned with Keddie's description of "the ideal neoliberal subject... who actively and purposefully crafts their identity to be worthy against these parameters of success" (Keddie, 2016, p. 109). Keddie, presenting their findings from a study of high-achieving learners at primary school goes on to describe how "within these imperatives, contemporary students are living a 'performative' and entrepreneurial existence of calculation that involves organising themselves in response to targets, indicators and evaluations" (Keddie, 2016, p. 109). Not only is this again closely aligned with my later writings and interpretations but, in spite of the negative connotations raised in the extant literature, I am pointed towards exploring the centrality but also perhaps the affordances of such internalised mechanisms for evaluating and directing the course of my life.

Worryingly, Weedon suggests that even the most oppressive, controlling or contradictory "ideologies and ideological practices... when they work well, are lived as if they were obvious and natural" (2004, p. 6) and indeed my reflections within this thesis suggest that I may have learned to consider the efficiencies of educational assessment in particular as the most logical application of learning and, subsequently, an unavoidable component of my efforts as an educator despite occasional, private protestations to the contrary. It is therefore particularly unsettling to contemplate how I may be somehow complicit in nurturing the next generation of neoliberal subjects (Ball, 2003; Giroux, 2011). For example, Wilkins' ethnographic work in two London secondary schools identifies schoolteachers' practices which seem to align with those of neoliberalism, such as the promotion of publicly competitive, entrepreneurial behaviours (2012, pp. 770-773): "From this perspective, classroom practices can be viewed as regulatory mechanisms that aim to link the conduct of individuals to politic-economic objectives at the macro-level of school structures and policies" (A. Wilkins, 2012, p. 768). My various sites of activity and responsibility in education therefore lead me to reflect on why I have found the notion, forms and disparate contexts or practices of subjectification to be so challenging to disentangle. My resultant position in this study is that I consider the potential processes of becoming and being a neoliberal subject may have been a continuous negotiation between myself and my surrounding contexts, working on myself and – by virtue of my various positions as learner and educator – being placed within institutional and interpersonal spaces where any of my actions could be aligned with reinforcing neoliberal performative norms and structures of governance. It is my current positioning at the intersection between institutional policies and practices of teaching and learning that lead me to therefore consider a more externally imposed, yet closely aligned feature of neoliberalism described in the contemporary literature: ideologies and practices of accountability (De Lissovoy, 2013). As I will build on throughout the chapters of this thesis, I will contemplate my "micropolitical" actions and how I have been adhering to or challenging such arrangements in my personal and professional experiences (Kelchtermans, 2005) where I seem to be "caught between neoliberalism 'out there' and 'in here'" (Warren, 2017, p. 127).

Technologies of neoliberalism III: accountability to assessment

While the specific measures of individual achievement and performance may differ significantly across educational contexts with their respective actors, stakeholders and organisational structures, Harvey's exploration of the recent history of neoliberalism (2011) is strongly in alignment with Ball, suggesting that it the dominant positioning of reductive measures of value within structures of employment and educational accreditation that imbue them with such profound influential power at individual, institutional and societal levels. For example, learners are held accountable for their performance on examinations as the only way that they may progress to fruitful further study, employment and citizenship (D. Brown, 2001; Padilla-Petry et al., 2022). Similarly, student teachers and qualified practitioners alike – groups that I continue to engage with as part of my current professional role – are required to continually demonstrate their competence in observations along with successful appraisal of their learners' test results

in order to become and remain employable (Ball, 2003; Ball & Olmedo, 2013; Noonan & Coral, 2015; Sofritti et al., 2020).

A consequence of the dominant positioning of these accountability measures - as noted above - is that they become an end to themselves, requiring substantial dedication of labour in order to realise success. Further still, the data generated from these activities is suggested to be the tool of choice for powerful managerial hierarchies in a somewhat cyclical, self-reinforcing fashion:

In the growing audit culture that has accompanied neoliberalism, there is simply more work to do to satisfy the increasing need for accountability... With neoliberalism comes 'managerialism', or 'a belief that all organizations or institutions regardless of their purpose or functioning can only work properly and efficiently if power, control and decision-making are centralized in some manner in the hands of professionally trained and 'objective' managers'". (Lucal, 2015, p. 8 quoting Ward, 2012)

Lucal, above, captures my perspective on educational policy and practice at national, regional and institutional levels, provoking my thoughts on comprehensive and wellestablished systems of measurement and assessment in progress and performance, both in professional terms (e.g. league tables, Ofsted inspection outcomes) and the development of learners, individually or collectively (e.g. assessment data, individual and institutional performance indicators). Where Lucal's phrasing is particularly useful to add to my review of the literature so far is in the depiction of significant resource and labour being dedicated to the creation of educational data as a central responsibility of educators, feeding into systems of centralised management that are depicted as powerfully controlling and even outright oppressive for their denial of professional trust and autonomy (Ball, 2012; Holloway & Brass, 2018; Giroux, 2020).

Educational testing forms just part of the systems of continuous appraisal and assessment I have become familiar with in the field, and my own reflections resonate strongly with arguments presented in the extant literature that such mechanisms are positioned worryingly as the cornerstone of educational governance: high-stakes educational assessments are situated within wider regimes and discourses of improvement through constant inspection and judgement of educational provision (Perryman, 2006; J. Clarke & Baxter, 2014; G. Williams et al., 2020) leading to the widespread disempowerment and de-professionalisation of teachers (D. Hall & McGinity, 2015; A. Moore & Clarke, 2016; G. Williams et al., 2020). Of particular relevance here though is recognising how, across my personal and professional experiences, a pervasive reliance on performance in observational surveillance alongside assessment metrics as an aim, outcome and structural guide for educational pursuits may have strongly shaped my identity as a learner and teacher and my image of the profession as a whole.

Padilla-Petry et al. (2022) helpfully extend the centrality of observable and auditable performance to the perspective of learners in Higher Education - as I also do in later chapters - pointing out that:

students must be perceived as active learners and what is visible and easily observable is measured... The invisibility of solitary forms of student engagement such as reading, writing or enquiring on the content of the subject outside the class may be ignored by teachers, and students who prefer solitary or independent learning may feel alienated and even vilified in classes where participation is mandatory (Padilla-Petry et al., 2022, p. 86, citing Tomlinson, 2007 and Gourley, 2007)

This resonates strongly with my views from the various positions I have considered in my later work, with the performative expectations and students' accountability being depicted as strikingly parallel to those of teachers within the neoliberal context. Critically, I am concerned by how it may be the marginalisation of non-normative performances or achievements which can influence the mindset and future actions of learners or teachers in such contexts, self-monitoring and adjusting behaviours based on their perception of expectations of accountability, as De Lissovoy attests:

As students perform well or poorly on tests, they are encouraged to understand this performance as a reflection of their own innate capacity and worth, which is in the same moment measured and set against the capacity and worth of their peers and competitors. (De Lissovoy, 2013, p. 428)

The depiction of relationships between accountability structures, performativity and matters of self-worth or valuing the activities of others will therefore be key areas for me to identify and reflect upon further as I construct and analyse my life writings.

Learning to live through/by technologies of neoliberalism

Drawing together accountability with the practices of subjectification described earlier leads me to a seemingly common Foucauldian trope used by authors to capture the personal internalisation of neoliberal governance practices (Apple, 2006; Ambrosio, 2013; D. Hall & McGinity, 2015; Jenlink, 2016; Holloway & Brass, 2018; Bacevic, 2019; Bartell et al., 2019), that the application of so-called panoptic surveillance is highly effective at conditioning individuals into subsuming the intended effects of accountability, as I had initially positioned as externally imposed disciplinary mechanisms, into their own psyche:

Bentham's circular prison, the 'panopticon,' is the metaphor typically used [by authors applying Foucauldian governmentality to neoliberalism] to represent disciplinary power. As a metaphor, it demonstrates how disciplinary architecture could support the automatic functioning of power, where inmates become the bearers of the system that subjects them. Unable to discover precisely when they were being observed, inmates would act as if observation were constant. (Allen, 2013, p. 225, citing Bentham, 1791/1843)

Yet again such bleak readings reflect the origins and continued motivation for my study for how they resonate with my own experiences as a professional, and how problematic I continue to find "the **continuous** submission to assessment and monitoring that is demanded by students and teachers alike" (De Lissovoy, 2013, p. 428, my emphasis). Over my first few years developing this thesis it seemed that every direction to which I turned my attention there seemed to be some existing or emerging mechanism of performance measurement and management, with observation of teaching practice being a quite literal example, as Holloway and Brass explore further:

Management and performance interventions... [function] to discipline teacher behavior and ultimately (re)make the teacher... This observation system kept teachers under constant surveillance - or at least the threat of surveillance... This system of surveillance created conditions for which teachers were not only managed by administrators but were also encouraged to manage themselves out of knowing they might be 'caught' underperforming. (Holloway & Brass, 2018, p. 374, citing Foucault, 1977)

It is not only the ubiquity but the sustained, relentless attention of performance-oriented management that led me to reflect on how deeply such experiences seemed to forcefully reshape behaviours and beliefs related to my learning and teaching, and ultimately my self-worth as a student and practitioner. Ball, having written about performativity in a variety of contexts, extrapolates from his initial conceptualisation to rather sobering, but again personally resonant, propositions about valuing and relating to ourselves and others:

Increasingly, we make decisions about the value and distribution of our time and effort in relation to the measures and symbolic and real rewards that are generated by us and about us... our worth, our humanity and complexity are abridged. We come to 'know' and value others by their outputs rather than by their individuality and humanity... (Ball, 2015, pp. 258–259)

Though Ball, in this case, is writing of Higher Education specifically, the damaging interrelationships between "worth", "humanity" and "knowledge" prompt me - in later chapters - to consider how precisely the same issues may have been present throughout

the contexts I have explored, such as pre-university settings that I have experienced as a learner and educator. For example, Keddie's analysis of interviews with primary school learners found that "neoliberal discourses of performativity and individual responsibilisation permeate[ed] their talk in relation to their understandings of education and their future, and their worth and value as students" (2016, p. 110) and therefore I may be able to identify the presence of similar discursive themes in my own writings on such matters. In my later methodology, I aim to take a pragmatic and dialogic view in this aspect of my work (Schwandt, 2007), thinking of my experiences and analyses as co-constructing and speaking back to the features of neoliberalism raised in the extant literature and my contextual surroundings, and may even be seen as constitute my own contribution to the maintenance of neoliberal subjectivity. For now, I will turn my attention to how my specific subject-areas of professional expertise have given rise to particularly poignant opportunities, but also some striking tensions, which have increasingly intersected with my thoughts on neoliberalism.

Statistics, statistical literacy and neoliberalism

In addition to the aforementioned constant observation - in quite literal terms of teaching and learning practice, it is the central positioning of reductive, quantitative, positivist-leaning approaches to measurement that I feel have become a hallmark of contemporary managerialism in education (B. Davies & Bansel, 2007; Sleeter, 2008; Sims & Waniganayake, 2015; Torrance, 2017). Such pseudo-objective, quasi-scientific processes are suggested by Connell as being of critical importance to establishing and maintaining a sense of "legitimacy" in neoliberal pursuits and ideals (Connell, 2010, p. 27), and Davies goes on to describe how "The 'audit society' promised to replace judgment with numbers: now we encounter so much enumeration, that we face a severe question as to how to judge which numbers genuinely matter, and how much they matter" (W. Davies, 2017, p. 197). The literature therefore draws my attention not only to the ubiquity, dubious or inconsistent value, and questionable application of quantitative measurement throughout my own life in education but, further, that as a teacher of statistics it has become one of my professional duties to help learners to develop their critical awareness of precisely these kinds of issues. Rumsey (2002), writing for statistics educators on important facets of quantitative "data awareness" captures this succinctly as follows:

- 1. data are a part of everyday life and are an important component of all aspects of the working world,
- 2. data are often misused, leading to misinformation, and
- 3. decisions made based on data can have a strong impact on our lives. (Rumsey, 2002, p. 4)

I could not agree more with Rumsey's outline, capturing much of my interest and practice as a statistician and teacher of statistical methods. In my work in Education Studies in particular, I have been keen to embrace a "sociology of quantification that looks at the production of numbers and their political and social use" (Languille, 2014, p. 50) but this inherently and repeatedly leads me back to the presence of neoliberalism and it's technologies I explored earlier. Building on my earlier concerns around ideological influences, my views on critical statistical literacy therefore lead me to directly question how quantitative assessment data and statistics appear to be utterly indisputable yet hold such great power over individuals' life chances (Languille, 2014), with a seemingly consequential narrowing of schooling to focus on maximising performance on such metrics (Hardy, 2015). Continuing my line of thought around statistics as a subjectdiscipline specifically, I will continue to conceptualise the key areas of tension that have given rise to some of my later writings, and why statistics education continues to be an extremely valuable, if challenging, aspect of my life.

Statistical literacy and critical thinking

As I will explore further in later sections of the thesis, some of my naïve thinking around the study of statistics in earlier chapters of my life focused mostly on aspects of the quantitative research design process, and that to be statistically literate one would need to merely understand the complete lifecycle of a research project in order to appraise each of the decisions leading to any statistical research output. While this remains an important element of my thinking and teaching, a theoretical model that I have been drawn back to several times throughout my career for expanding on this further is Wild and Pfannkuch's "statistical thinking in empirical inquiry" (1999, p. 226) which places the importance of comprehensive coverage of the "PPDAC (Problem, Plan, Data, Analysis, Conclusion)" (1999, p. 226) model of investigation as just one of four "dimensions" of importance:

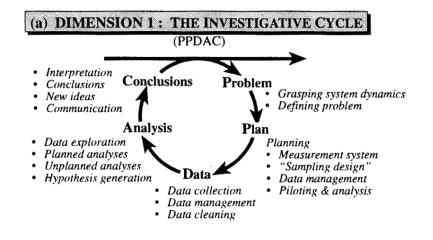


Figure 1: PPDAC model of investigation (Wild & Pfannkuch, 1999, p. 226)

Though I have already described myself as a teacher of "statistics" or "statistical methods", much of my work and interests in my most recent role in Higher Education are somewhat broader than just the technical, mathematical aspects of statistics as a mode of inquiry outlined in Figure 1, above, and I would tend to also use the term "statistical literacy" to encompass the idea of being able to communicate and critique quantitative measurement and statistical analyses.

Weiland suggests that statistical literacy is "generally viewed as a consumer perspective, where to be statistically literate; individuals need to be effective data consumers" (2017, p. 38 citing Wallman, 1993 and Gal, 2002) but - as I would agree -Wallman goes on to problematise this notion as too limiting for not incorporating the importance of a critical reader to have experienced and developed an understanding of the full process of statistical inquiry: "it is difficult to critically evaluate the method that someone is using to analyze data in an argument without having some experience with using that analysis themselves" (Weiland, 2017, p. 38). Papers that I have explored throughout my career in statistics instruction and statistical literacy seem to share a common thread which draw these technical and communicative practices together, describing an intentional and sustained mode of critical thinking based on authentic experiential learning. Practicing statistical literacy demands a persistent, painstaking interrogation of any arguments which make use of quantitative data, examining the fine detail and justification of an authors' methodological decisions throughout the research process. A critical reader of quantitative research needs to therefore have a comprehensive understanding and experience of all stages of the research process from design, through data collection and analysis, to the precise wording and application of any findings which arise (Schield, 1999; Tal, 2001; Rumsey, 2002; Ben-Zvi & Garfield, 2004b; Gal, 2004; Reston, 2005; MacGillivray & Pereira-Mendoza, 2011; Weiland, 2017; Bailey, 2019; Koga, 2022).

While I continue to make connections between broad issues of research design and critical reading of research papers in my contemporary teaching practice, it is some of the other dimensions of Wild and Pfannkuch's model which therefore give rise to the more recent problematisation of critical statistical literacy discussed above, and the key areas which I feel are in tension with the neoliberal context I have described so far. I will not discuss Wild and Pfannkuch's "Dimension 2" (1999, p. 226) in detail, as this is the element of their model that seems closest to the technical-mathematical aspects of statistics that I mentioned earlier. Instead, it is the remaining two dimensions which lean far more heavily towards broader potentialities of critical thinking and hermeneutics (Koga, 2022) and which give rise to the moments of conflict and tension that have become central to my research:

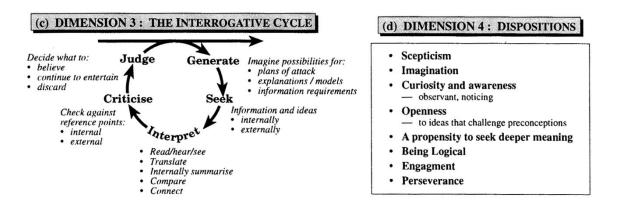


Figure 2: Critical thinking elements of Wild and Pfannkuch's statistical thinking model (Wild & Pfannkuch, 1999, p. 226) The interrogative cycle (Figure 2, above) directs Wild and Pfannkuch's audience to the importance of examining the fine detail of a statistical report's methodological approach and evaluating an author's decision-making as I described earlier. However, it is in combination with the fourth dimension, "dispositions" (Figure 2, above) for statistical thinking, that I see a need for statistically literate individuals to hold a fundamental motivation to question theirs and others' creation, analysis and interpretation of statistical evidence, and to have the freedom and desire to imagine alternative possible purposes and meanings of quantitative data (Babones, 2016; Collesi, 2019; Koga, 2022). It is therefore the possibility or silencing of hermeneutic examination of statistical evidence (Schmidt, 2014) which I position as a key point of tension between my area of disciplinary expertise and the socio-political focus of my autoethnographic inquiry.

Hermeneutics and critical pedagogies

I align myself with Clough in a view that "all representations of empirical realities, even statistical representations, are narratively constructed" (1992, p. 3) and therefore would argue that any statistical representations of educational or professional performance can and should be subject to critical questioning of how they come to be created, communicated and interpreted. However, the suggestion of applying such an interpretive approach so universally to all forms of statistically-grounded argument (Babones, 2016) seems to be strongly counterposed to the broadly positivist and strongly anticritical sentiment identified in contemporary neoliberalised educational and political discourses surrounding quantitative assessments of performance (Giroux, 2011; Saltman, 2018).

Reflecting on my years of professional and academic work including this research study, these readings lead me to the concern that exercising critical statistical literacy in an authentic way is diametrically opposed to the predominant neoliberal principles underpinning the society and professional spheres that I continue be a part of. The dominance of free-market rationality – described earlier as a defining trait of neoliberalism – has been argued by Curtis (2013) to be:

an attack on all interpretation in the name of truth, and the truth of the free market in particular. Hermeneutics has been replaced by a 'politics of description' where the market is the true expression of human organisation and the possessive individual is the true characterisation of human desire... hermeneutics automatically takes a political stance as 'the thought of the weak'. (Curtis, 2013, p. 149, citing Vattimo and Zabala, 2011)

I find Curtis' assertion of free market rationality being positioned as an unopposable truth to be a profoundly disturbing prospect, not only resonating with my feelings of oppressive and controlling influences on my own epistemic freedoms ("an attack", in Curtis' terms, above) from the spaces surrounding me as a learner, citizen and teacher, but also strongly in alignment with Vattimo and Zabala's derogation of hermeneutics altogether (2014), echoing the complaints of Giroux (2011), Kincheloe et al. (2011), Ball (2003, 2008), and Apple (2006). Collectively, these authors' arguments strongly suggest to me that any attempts to overtly challenge the neoliberal master narrative by suggesting or facilitating critical approaches to pedagogy (Dimella, 2019; Giroux, 2011)

or researching (Kincheloe & McLaren, 2002; Reddy & Amer, 2023) may be noble but extremely unwelcome: it is "almost impossible to challenge this discourse without seeming to be out of out of touch, backward, romantic, or even politically sectarian" (Curtis, 2013, p. 12). It follows that my identity as an educator, and any aspirations to be a genuinely critical pedagogue, may be strongly influenced by such powerfully constraining surroundings. For example, as Lewis and Holloway describe the findings from a series of interviews with teachers and school-leaders in the United States of America:

... data-driven practices and logics have come to reshape the possibilities by which the teaching profession, and teaching professionals, can be known and valued... educators experienced, and came to embody, new forms of numbers-based accountability... such data are now both effective (i.e. they change 'what counts' within the profession) and affective (i.e. they produce new expectations for teachers to profess data-responsive dispositions over actual educative practices). (Lewis & Holloway, 2019, p. 35)

As with the broader internalisation of neoliberal principles such as performativity into one's own structures of understanding that I raised as a concern earlier (Ball, 2012, 2015, 2016; Curtis, 2013), this particular aspect of quantitative data-centric governance becomes particularly striking for me as a space at the heart of my experiences which countermands the critical interrogation it is due. Such an unflinching and influential positivist deference to quantitative measures is described by Giroux again as a defining trait of:

neoliberalism whose reform efforts focus narrowly on high-stakes testing, skill-based teaching, traditional curriculum, and memorization drills. Ideologically, the pedagogical emphasis is the antithesis of a critical approach to teaching and learning, emphasizing a pedagogy of conformity and a curriculum marked by a vulgar 'vocationalist instrumentality'. (Giroux, 2020, p. 42)

Giroux's depiction is quite blunt and provocative, and though I do not disagree with their suggestions, I am mindful of the variety and extent of the reflections I have needed to collate and analyse to attempt to make sense of my experiences in this arena, in-line with the earlier problematic task of defining and situating varied forms and effects of neoliberalism. Brunila et al. (2020), writing of Higher Education in particular, take a more nuanced view though still very much in alignment with Giroux:

The power of the neoliberal governance of academic teaching is not directly oppressive; however, in more or less subtle ways, it causes ... critical thinking and resistance to weaken or even vanish. **Even if we know what to do, and have proven knowledge of how to do it, it is still a constant struggle** ... (Brunila et al., 2020, p. 14, my emphasis)

Thus, as I continue to study and teach statistical literacy skills, I absolutely recognise the "struggle" depicted by Brunila (above) when hoping to engage critically with such organisational agendas and structures in my professional life which seem to shut down hermeneutical potentialities. This leads me to contemplate where I have felt pushed to find a compromise between alternative visions of personal and collective enterprise along predominantly neoliberal lines. MacLachlan – describing themselves as an "early career academic" (2017, p. 58) in Higher Education, as would I – summarises their perspective in a way that neatly captures my own predicament:

I take it as a given that I am working in a university that is shaped by neoliberal logic, and this is the structure in which I find myself, and which is shaping and potentially constraining my professional work, and identity as an academic... I have to remain aware of how to perform in order to stay in the system – because if change is difficult to achieve from the inside, it is impossible to do from the outside. So my goal is to simultaneously embody the ideals of the critical tradition, whilst attempting to tick (or constructively challenge) the neoliberal boxes. (McLachlan, 2017, p. 68)

Indeed, I recognise that it is only my continued performance as an educational professional that has afforded me the opportunity to carry out this doctoral study in the first place. Despite the relative academic freedom afforded of the research process – I have not been directly instructed to take any particular methodological approaches or to engage with any specific subject-matter – I remain mindful of the challenges of speaking or acting in a manner which is critical of mechanisms of neoliberal governmentality which have become central to the organisation of the academic establishment at large (Bacevic, 2019; Brunila et al., 2020; Foster, 2017a; Smyth, 2017).

Neoliberal affects and involved knowing

As noted earlier, I am building my inquiry upon the premise of neoliberalism as a coalescence of ideological traits rather than a specific class of social actors or actions, but I nevertheless recall moments where these powerful and pervasive ideas (Schwarzmantel, 2005) seem to have permeated my personal and professional endeavours. Seen collectively, the confluence of performativity and accountability in education, for example, create a somewhat bleak but familiar picture:

The pressure exerted on schools by the need to rise in performance indexes is intense, to say the least. In the ordeal of test-based classification, schools are branded, teachers' pay and job security are increasingly tied to performance, and students bear the individual and collective stigma that often accompanies the scores they produce. With all energy and attention in the school directed at lifting this stigma, the structure of accountability as

enclosure is evident, since few emotional or intellectual resources are left for learning itself. (De Lissovoy, 2013, p. 430, citing McNeil, 2000, 2005)

The frequent use of such strongly evocative imagery by authors on this subject (Bacevic, 2018, 2019; Ball, 2003; Giroux, 2005, 2020; Holloway & Brass, 2018; Springer, 2016) consistently reflects the sum of my concerns to the point of carrying out this study, that the fundamental structures that I have used to guide my decision-making in my life seem to reflect aspects of an idealised neoliberal subject, one that may be deeply imbued within my recollections of thought and action, as Comaroff & Comaroff describe: "subject positions are multiply determined, shaped less by political expediency than by the compelling truths of sense and perception" (2000, p. 301). My final area of consideration in this initial review of literature arises directly from how distressing I have found such realisations, referred to by Zembylas (2022) and Anderson (2016) as "neoliberal affects" and how these have become a prominent provocation for my recall and exploration of my life.

Neoliberal affects and involved knowing

In the previous chapter, I briefly introduced how I have been drawn towards Franke's notion of "involved knowing" (Franke, 2015, p. 600) as a term that captures my desire to have the freedom to legitimise affective aspects of reasoning as a key component of my line of inquiry. Several recent works around neoliberalism have similarly engaged with affect as a specific yet complex notion of importance with particular relevance to the debated forms of "subjectification" problematised by Watts (2022) and Byrne (2017), as discussed earlier. Anderson (2016), proposing their own definition of neoliberal affect, begins by explaining that:

affect is an umbrella category that encompasses qualitatively distinct ways of organizing the 'feeling of existence'. Atmospheres, structures of feeling and other pragmatic-contextual translations of the term 'affect' are ways in which things become significant and relations are lived. (Anderson, 2016, p. 736)

They go on to explore of the predominant affective overtones described or implied by other authors on neoliberalism as I have found in my readings, typically quite negative (e.g. Bacevic, 2019; Ball, 2003; Becker et al., 2021; Springer, 2016), though there are exceptions (e.g. Holloway & Brass, 2018). Anderson goes on to argue that such affective markers are legitimate, relevant avenues for inquiry as "part of the real conditions for the formation of neoliberal logic/reason and for the actualization of particular

neoliberalisms" (Anderson, 2016, p. 751) as I explored earlier. Of particularly close alignment with my approach in this study is Zembylas' recent suggestion that:

it is not enough for education scholars to turn our attention to neoliberal academia via its affective and psychic registers ... we need to expand our conceptual and theoretical vocabulary to recognize the multiplicities and nuances of new injunctions and prohibitions on how to feel in different academic contexts. (Zembylas, 2022, p. 3)

My thesis seeks to address this directly, exploring my own journey across a variety of academic contexts, with the genesis of my storying typically being affective in nature: the experiences that have provoked the greatest emotional response on recall, those which seem to feel most poignant in my recollections of learning and teaching. Nevertheless, Anderson goes on, rightly I feel, to warn that "we should treat the term 'neoliberal affects' with caution" (2016, p. 735) very much in line with my reasons for establishing only a cautious, intentionally multifaceted definition of neoliberalism earlier: I will avoid careless transposition of my own emotions and reflections into some imagined zeitgeist or collective structures of feeling beyond my own storying, though I will reflect on where the extant literature and larger sociocultural observations seem to be at least aligned with, or complementary to, my own points of learning.

Building on Anderson's work in the context of recent scholarship in neoliberalism specifically, Chowdhury applies an "affective-discursive lens for exploring how bodily resonances and meaning-making intertwine to produce neoliberal subjects" (2022, p. 210) and how such an approach "draws attention to the normativity of affect and its embeddedness in power relations" (2022, p. 210). I will return to Chowdhury's approach later – particularly their use of "voices-of-the-self" and "self-othering" (2022, p. 209) as I draw together the threads of my bricolage – but for now I find such approaches to strongly support my exploration of self-narration as providing meaningful insights into what I have personally felt to be strongly influential and representative aspects of neoliberalism as I have come to know its presence. Analysing their own series of upsetting life writings as academics in the Nordic Higher Education sector, Valero et al. (2019) explain that:

affective subjectification is the power effect on the subject of being governed through affects in neoliberal academia. The articulation of forms of management that generate instability and anxiety with technologies of self-development and personal growth keep subjects vulnerable in the midst of the ambivalence between the pressure for increased (economic) performance and the promise of individual, self-improvement... In the neoliberal ethos, precarious academic subjects are constituted under both oppression and resistance ... (Valero et al., 2019, p. 149)

I therefore consider that the life writings presented later in my thesis are reflections of my "acquiring and 'interiorising' particular affective-discursive practices... in educational sites or at work" (Chowdhury, 2022, p. 215), and that although I am troubled by the often negative, anxious, sometimes egotistical frame of some of my stories, that the very form of my expression may again be congruent with "the emotional logic of neoliberalism" (Binkley, 2018, p. 580).

I return to Anderson (2016) one final time for their support on my specific line of questioning in this thesis, extracting a few phrases from their suggestions for further inquiry that I notice are raised and explored in my later writings and analyses:

"how are structures of feeling... the cluster of promises and threats, hopes and fears... differentially lived, that is, adjusted to, acquiesced to, or disrupted?" (Anderson, 2016, p. 751)

Several of my writings explore points of decision-making or troubled reasoning in my personal and professional life, with associated affective implications.

 "we might ask how neoliberalism is lived with/in if people's attachments and investments in neoliberal objects lack the surety of enthusiastic endorsement or angry rejection" (2016, p. 752). Indeed, despite my present positioning as strongly against neoliberalism at large, the storying of my affective relationship with neoliberalism over my lifetime appears much more complex, lacking the simple conviction to lean or at least act in a singular direction.

Dualistic reasoning, epistemological alternatives and freedoms

To conclude, my experiences up to the point of undertaking this thesis research have led me to concerns about the ways that neoliberal principles seem to have imbued themselves throughout my life with profoundly troubling affective and epistemological implications. As Heywood describes, the overwhelming omnipresence and omnipotence of neoliberalism – from my perspective – seems akin to outright fundamentalism:

a style of thought in which certain principles are recognized as essential 'truths' that have unchallengeable and overriding authority, regardless of their content... their supporters tend to evince an earnestness or fervour born out of doctrinal certainty. (Heywood, 2017, p. 112)

As I have explored in this initial review of literature and will continue to investigate later, the mechanisms of management and governmentality, which rely on market-oriented quantitative measurement and comparison of outputs, sometimes seem to constrain key moments in my life story to a simplistic dualism of reasoning: right/wrong, success/failure, correct/incorrect. Uttal, speaking of their concerns about a deeply entrenched dualism in cognitive psychology research (specifically, mind-body dualism, though I feel their argument very much captures my broader conception of the term here) identifies how some of the forces that shape understandings in their field seem to be dominated by unseen, "unexpressed... powerful and compelling urge[s]... residual ideas from dualistic religion and philosophy" (Uttal, 2013, pp. 257–258). Their words trigger my thinking about a certain religiosity to the neoliberalism depicted in some literature for how it is depicted as holding such profound life and thought guiding function (Dutta & Basu, 2018; Viggiano, 2019). It is also Uttal's suggestion of a natural urge to gravitate towards simplistic, dualistic, closed ways of thinking (2013, above) that interests me, again as a point of confluence between the problematic effects of neoliberal ideologies and my hopes for nuanced, interpretive approaches to quantitative inquiry and my appreciation for the critical potential of hermeneutics in general (Zimmermann, 2015). As I explore later, dualistic thinking seems to be represented in some of my writings and may even appear rationalistically adequate for allowing me to succeed in much of my early career, in-line with the neoliberal principles that seem to actively reward such a mindset, and it is only now - much later in my life - that I seem to desire something different. At least recognising that I have often taken comfort in dualism leads me to ponder how conflictual this is for my more recent pursuit of a freer, more authenticfeeling epistemology. Uttal would suggest – somewhat out of alignment with my earlier consideration of situated neoliberal affects – that this may be one of the points where I might claim a meaningful connection between my life-history, this research thesis, and the wider world:

The result of these unspoken [dualist] assumptions, however, on our day-to-day activities is profound for no more complex reason than the fact that they are the major determinants of the psychological Zeitgeist. This wonderful old word alludes to the generally accepted corpus of ideas of prominence at a particular time and place. (Uttal, 2013, p. 257)

This is again not only one of my ongoing professional, educational concerns but it is also a concept central to my thesis: the extensive literature that I have cited in this chapter and throughout my research seems to suggest – though I realise this is a bold claim – that the "generally accepted corpus and ideas of prominence" (Uttal, above) guiding the direction of education at the individual and institutional levels I have become familiar with are indeed closely aligned with principles of neoliberalism, and a dualistic rather than more nuanced view of evidence-informed decision-making. It follows that such reductive modes of thought would be conflictual with my personal desire to have the opportunity to be able to guide my professional practice and my own life-course on the basis of a less constrained epistemological position.

Having the freedom to explore alternative perspectives on the nature and limitations of knowledge and one's interpretation of a variety of forms of information are - in my view – logically fundamental to the development and enactment of statistical literacy (following the principles described by Wild & Pfannkuch, 1999, for example). However, these are also possibilities which I am concerned may be suppressed by educational and professional experiences where neoliberalism seems so prominently positioned as the most legitimate way of "explaining observed reality, guiding thinking about the desirable course, nature and scope of policy making" and where "alternatives to neoliberalism are cast as unrealistic or romantic anachronisms, with opponents viewed as motivated by ideology or narrow self-interest" (Cahill, 2018, p. 984). I am not the only author to consider how the discourses and regulations that contemporary educators work within such as the Teachers' Standards (Department for Education, 2011) or the broader systems of assessment-oriented, performance-driven, marketprincipled schooling (B. Davies & Bansel, 2007; Keddie et al., 2011; Connell, 2013) may act to create a constraining, controlling intellectual space (Ball, 2003). Applying these ideas to matters of statistical literacy, my exploration of the literature suggests an area of contradiction, that contemporary culture and curriculum of UK schooling notionally nurtures fluent consumers and users of knowledge and specifically, quantitative data (e.g. Department for Education, 2013a, 2013b, 2014; Goldstein, 2006), all-the-while potentially narrowing and removing opportunities for teachers, learners – and as again noted by Curtis (2013), future citizens – to authentically enact such principles if they run counter to those of neoliberalism.

In order to explore my personal experiences with the issues raised in my review of the literature, I will now turn my attention to the methodological approach I have developed and employed in this study. I utilise techniques of autoethnography and bricolage to reflect on my learning history and current role nurturing students in the field of Education Studies including student teachers at a Higher Education Institution (HEI) in the United Kingdom. In doing so, I will continue to reflect on how systems of performance management and assessment that are deeply embedded in my experiences in education may militate against my confidence to take an epistemological position outside of those most aligned to neoliberalism, even as a doctoral researcher.

Chapter 3: Methodology

As the last of the precursory sections to the main body of my thesis, I introduce the main strands of my methodological approach in this research – autoethnographic vignettes, theoretical bricolage and layers of analysis – in order to explore the justification and limitations of my choices while reflecting on key implications for the process and product of my study (L. Cohen et al., 2018; Hammond & Wellington, 2013; Wellington et al., 2005). I will also contemplate ethical issues and necessary adjustments that I must make within the writing and analysis of my data to attempt to minimise the potential for harm to myself and other parties (British Educational Research Association, 2018; L. Cohen et al., 2018). However, in a similar vein to my literature review earlier, while broad methodological concepts and aims for my research are addressed in this chapter, I expect that some of the finer nuances of my approach will become more apparent only though my exploratory and reflexive engagement with methods in later chapters.

My intention at this stage is to outline only what is absolutely necessary for the reader to understand the direction of my work while allowing for my narrative autoethnographic bricolage to give rise to further points of development later (McSweeney & Faust, 2019). Similarly, I have delayed the incorporation of precisely and narrowly defined research questions until the end of this chapter, despite an earlier positioning being suggested by some methodological texts (e.g. Arthur, 2012; Greener, 2011; Hammond & Wellington, 2013). Instead, I follow Hoppes' suggestion that "autoethnography, like other forms of research, hinges on a well-articulated research question, although it very likely will be implicit instead of explicit" (Hoppes, 2014, p. 66, my emphasis); while I have defined only my broad area of interest in my introduction and literature review thus far, I will provide some outline research questions at the end of this chapter but I will also return to some of the intersections between my methodological decision-making and my personally or professionally enacted epistemological positioning within the neoliberal frame (Denzin & Giardina, 2017) towards the end of my study. Similarly, I reflect on matters of a narrated sense of self or identity (Bamberg, 2011) initially here, to help guide my approach to writing and analysis, but will expand on more specific aspects as they emerge throughout the thesis.

Methods (of resistance) I: Autobiographical vignettes and autoethnography

As described in the earlier introduction, my original proposal for this doctoral research has been rendered virtually unrecognisable, moving from plans for a convoluted mixed-methods study mostly centred on the collection of quantitative data and a mathematical modelling exercise (Lahmar, 2015) towards an entirely qualitative autoethnography. My first step towards this shift arose from frustrations that I shared with my supervisor around some of the areas of tension described in my earlier literature review: confusing, contradictory understandings and experiences of moving between narrowing, constraining organisational and curriculum arrangements in education and the broader critical and intellectual possibilities of statistical literacy and interpretive epistemologies (Bacevic, 2019; Reddy & Amer, 2023; Rodriguez & Magill, 2016). Much as Holman Jones recounts of their experiences of social research, my supervisor at the time "encouraged, cajoled, and demanded – again and again – that I write the story. And so I wrote stories, lots of them" (Adams et al., 2015, p. 4, quoting Holman Jones, 2015). The stories I created were precisely what Ellis at al. describes as autobiographical, where "an author retroactively and selectively writes about past experiences... the author does not live through these experiences solely to make them part of a published document; rather, these experiences are assembled using hindsight" (Ellis et al., 2011, p. 275). Furthermore, rather than attempting to create a single, monolithic autobiographical piece to capture the totality of the experiences I wanted to explore, I instead constructed short vignettes, each one "a written description of a (frequently fictitious) event which relates to the central topic of study" (Sampson & Johannessen, 2020, p. 56). I will therefore move towards exploring how recent authors suggest I can frame the nature and form of the vignettes I have created, but feel that this first requires consideration of how my topic of inquiry intersects with the context in which I wrote my vignettes, conducted my research, and completed my doctoral studies.

In order to establish the legitimacy and credibility of my contribution to knowledge in this work, I am intrigued by the suggestions of Jordan and Wood that aspects of neoliberalism "have increasingly colonised social and educational research" (2017, p. 147) with specific reference to the setting of my contemporary work and the presentation and examination of my doctoral research:

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[Although] boutique methodologies, such as autoethnography, have resisted and, to some extent, defined alternative non-positivist pathways for qualitative researchers for some time, we have also suggested that these are increasingly being marginalised within universities. (Jordan & Wood, 2017, p. 153, citing Ellingson, 2014)

While several authors and indeed my own supervisors have been reassuring about the legitimacy of autoethnography as a methodology, I recognise the importance of being able to understand and explain to the reader how I have ensured that my approach to research with my chosen methods is robust and trustworthy (Wellington, 2000; Wellington et al., 2005). To begin with, perhaps the most obvious and substantial shift in the evolution of my study into autoethnography is the centrality of qualitative self-written vignettes as my main base of data. This is not to say that there are no attempts to explore similar topics to my own using quantitative methods similar to those I had originally envisaged, such as Becker, Hartwich and Haslam's mediation analysis of relationships between psychometric measures of perceived neoliberalism and aspects of wellbeing (2021), an article I read with great curiosity as a statistician but that does not sit well with my concerns over the inherent reductivism of multifaceted socio-political and – in the case of their particular study – complex personal and psychological issues.

Utilising self-created writings as a focus and base of data for research has been positioned by authors such as Kimpson (2005a) as somewhat maligned and marginalised in the context of western, early twenty-first century social science: "critical autobiographical narratives themselves transgress academic and disciplinary expectations about 'acceptable' research topics, and violate norms about how research is 'supposed' to be conducted" (2005a, p. 73). Much more recently, and in an intriguing confluence of elements I have been exploring so far, Rambo and Pruit (2019) utilise a series of vignettes as the basis for their study, mostly very short passages of text, written with the intention of provoking the audience (Törrönen, 2018). Unlike my own work, they intentionally avoid precise situation and closure of each short narrative, or in the authors' own terms, leave these elements "in play" (p. 235). Nevertheless, in addition to a methodological interest in the authors' crafting of the paper itself, I was also struck by how the researchers' substantive concerns resonate so closely with Kimpson's thoughts a decade-and-a-half earlier (2005a) along with my own early uncertainties about shifting my direction towards qualitative, autoethnographic inquiry. Rambo and Pruit (2019) depict a range of negative experiences including deeply insulting, denigrative views on autoethnography on social media and in their academic surroundings as qualitative

sociologists, along with their resolve to persist with such endeavours regardless. Several of their vignettes frame their academic surroundings – institutionally and personally – as being strongly oriented towards quantitative work and that, as autoethnographers, they find themselves repeatedly marginalised. I am therefore prompted to see my choice of autoethnographic method in light of my earlier readiness to conduct quantitative research as ultimately quite a positive move. I been able to select and pursue a chosen methodological course in spite of my earlier preconceptions about acceptable, legitimate doctoral research. Further still, despite several authors' recognition of profound negativity towards autoethnography from some quarters (P. Atkinson, 2006; Ellis & Bochner, 2006; Foster, 2017b; McSweeney & Faust, 2019; Rambo & Pruit, 2019) I too – over my years of study – have slowly moved towards justifying the strengths and affordances of my methodological approach, considering autoethnography as a method of resistance to otherwise oppressive or disparaging voices (Berger & Quinney, 2005; Kimpson, 2005a; Poulos, 2017; Sughrua, 2016), rather than defending my methodology from a position of unwarranted vulnerability.

In the sections to follow, I explore further aspects and sub-types of autoethnography that I have used to inform my work: narrative autoethnography, "texts presented in the form of stories that incorporate the ethnographer's experiences into the ethnographic descriptions and analysis of others" (Ellis et al., 2011, p. 278), and "layered accounts" (Ellis et al., 2011, p. 278) with an emphasis on moving reflexively through the stages of analysis of my vignettes, as reflected in my analytical commentary in which I aim to maintain a critically introspective and methodologically reflexive stance (Humphreys, 2005; Pitard, 2017). Finally, and closely related to some of the ethical considerations that I explore later, this autoethnography focuses on "personal narratives" where I "propose to understand a self or some aspect of a life as it intersects with a cultural context" (Ellis et al., 2011, p. 279), aspiring to "invite [my] readers to enter the author's world and use what they learn there to reflect on, understand, and cope with their own lives" (Ellis et al., 2011, p. 280) in the way that I have found these features of other authors' work to have been informative and inspirational (e.g. Bacevic, 2019; Pitard, 2019; Warren, 2017).

Vignettes as purposefully authored, discursive constructions:

As my autobiographical vignettes are intended to be personally expressive and recollect events from my own life - albeit with some necessary alterations in attention to the ethical considerations I will discuss later – I also completely understand and accept that the reader, nor I, should expect the vignettes to be an absolute factual record of some past events. Instead, as Nilsen and Brannen helpfully summarise the milieu of my research, "the focus is on the relationship between wider social change and individual biography... [not] on the 'truth' of individual biographical accounts" (2010, p. 686), aligned with Denzin's proposal that writings such as my own are "A fiction... fashioned out of real and imagined events. History, in this sense, is fiction" (Denzin, 1989, p. 41 cited by 2010, pp. 684–685). Richardson situates this careful framing of my vignettes as part of the postmodernist paradigm which "claims that writing is always partial, local, and situational, and that our Self is always present, no matter how much we try to suppress it - but only partially present, for in our writing we repress parts of ourselves, too" (Richardson, 2000, p. 931). Though I will continue to explore paradigmatic labelling of my research approach in more detail later, I find Richardson's depiction of the writing process helpful for describing how I have found it so deeply yet implicitly connected to my sense of self, from the crafting of individual vignettes to the broader presentation of my thesis. Törrönen (2018), reflecting on their learning from the use of vignettes as stimulus materials with interview participants, summarises that:

When vignettes are used as discursive constructions, we do not assume that they are transparent windows to stable prior realities or have law-like causal effects. On the contrary, we suppose that they are performative interpretations of certain situations, events or processes, done by a visible or invisible narrator. (Törrönen, 2018, p. 283).

Building from my authorship and narration of my data, my voice is very much visible and central throughout the thesis text and the vignettes in particular, and Törrönen's words helpfully capture how making sense of my self-representation, considering how I am performing a particular vision of my life's experiences through my storytelling, may therefore be a productive direction for my inquiry. I will return to Törrönen's exploration of vignettes shortly to consider the possible functions of my writings which may then guide my approach to analysis.

Selfhood, being and involved knowing as a basis for my vignettes

As I began writing my vignettes, it became apparent that these stories of my lived experiences were capturing aspects of my initial research interests which I felt could not be adequately captured through quantitative methods, turning my attention towards the potential for meaningful learning from such data. It is the subsequent application of ethnographic techniques including due ethical consideration in the reformulation of my writings, and the bricolage of analyses in various theoretical framings, that render the initially autobiographical writings the basis for an autoethnographic piece of research (Ellis et al., 2011; Sikes, 2013; Le Roux, 2017). It follows therefore that my thesis is based around the premise that "Autoethnographic stories are artistic and analytic demonstrations of how we come to know, name and interpret personal and cultural experience." (T. E. Adams et al., 2015, p. 1). The writing and analysis processes that I have compiled to form the substantive body of my thesis reflects a confluence of occurrences over recent years as an academic teacher, provoked into recall and reflection on events in my life by a wide variety of readings and discussions that share the common thread of concern with my personal and professional experiences of neoliberalism.

After a few years pursuing this direction of study, I began to accept that taking an explicitly autoethnographic perspective seemed more fitting than simply attempting to acknowledge or distance myself from my personal position in relation to the field of inquiry (Chase, 2011). My strength of feeling around the value of statistical literacy skills and the potentials of critical pedagogy, and how these may have been underappreciated or even undermined by some of the contexts and actors in my life story, is a deeply personal and subjective view, yet seems to be inseparable from my positioning in relation to others as an educator, learner and citizen. An autoethnographic approach is therefore not intended to limit my study purely to commentating on my own emotions-in-isolation but instead recognises my lived experience as situated within personal, cultural, educational and professional contexts (Huber, 2022; Rambo & Pruit, 2019; Valero et al., 2019).

My research approach therefore follows the guidance of authors in the field of qualitative inquiry such as Denzin and Lincoln (2017), Sikes (2013) and Pitard (2015) by embedding my autobiographical vignettes as a core device for driving and structuring my thesis. My overarching research thesis and the individual vignettes and analysis within

are therefore more than just a collection of communicative structures and devices. Instead, I see their function and form to reflect the relationship that I have with the surroundings that have shaped them, including who I imagine to be the audience for my constructed story (Huber, 2022; Humphreys, 2005). What I can claim to know of my emotions, beliefs and the memories that I hope to capture in my writings, and the way I have chosen to make sense of my data and present my thesis to my audience, is completely intertwined with my life-history, worldview and relational positioning within my surroundings as citizen, learner, researcher and employee.

Franke (2015) uses a phrasing that has appealed to me as a way of capturing some of my motivations and hopes in turning to qualitative, narrative autoethnographic inquiry and indeed bricolage (discussed later in this chapter) as a social scientist. They advocate an appreciation of "the human significance and originally poetical character of all knowledge, whether personal or systematic" (2015, p. 608) as follows:

In human knowing, there is always a subject who cannot be completely focused as object, but who is indirectly expressed in countless ways – as intimated, for example, by the tenor of a discourse and the affective nuances of its language... And this is poetry ... we always need to ask what the human meaning and value of a given form or instance of knowledge is, for that is what makes it **matter** to human beings. (Franke, 2015, p. 608, my emphasis)

Considering Franke's poetic word form just a little further, throughout my writing process and noticing some of the threads of reflection and learning that I summarise in my concluding chapters, I have been struck by what I find myself describing as a certain beauty to what my supervisors had guided me to experiment with and experience. Even now, I find the word quite odd and uncomfortable to use, but it is particularly personally poignant for two key reasons. First, beauty is a word that I have noticed being used occasionally in my first profession of mathematics education as a signifier of something beyond the simply utilitarian, describing instead the aesthetics of a field of study and activity which I have otherwise experienced in a typically technicist way (Breitenbach, 2015; Rota, 1997). Further still, Rota's words in particular on mathematical beauty ring strikingly true of what I have come to experience of bricolage and autoethnography: "the beauty of a piece of mathematics is often perceived with a feeling of pleasant surprise, which is a way of acknowledging the unexpectedness of an argument" (Rota, 1997, p. 172). Indeed, it is with a degree of positive surprise that I came to a realisation that my writings could indeed be analysed in a scholarly way that I found personally valuable, convincing and – as I argue within this methodology, and later as I conclude the thesis –

a legitimate base of empirical evidence provided that I carefully and precisely frame my epistemological perspective and claims to knowledge (L. Cohen et al., 2011, 2018; Wellington, 2000).

Continuing my cautious and introspective exploration, I do not propose to take Franke's "involved knowing" (2015, p. 608, as above) as a completely abstract concept from the humanities and apply it without due consideration of purpose and usefulness to my social science study. One of the reasons that I feel so drawn to Franke's suggestion is for how it resonates with some of the specific areas of interest, concern and frustration in the personal and professional experiences that motivated my writing of vignettes, and have become the basis for my later chapters. For example, I explore conflicting thoughts on utilitarian, outcomes-focused motivations for teaching or studying mathematics, statistics and teacher education, while hoping to embrace and promote more critically thoughtful, intrinsically motivated and philosophically grounded aspects of engagement with these fields. I am unsurprised, therefore, to find that even exploring the purposes of mathematics education and the aforementioned notions of aesthetic or utilitarian perspectives leads me once again to debates on deleterious neoliberal influences on otherwise deeply intellectual pursuits (le Roux & Swanson, 2021; Llewellyn, 2016; Rossi D'Souza, 2023), not dissimilar to those I have reviewed earlier (e.g. Ball, 2008; Giroux, 2011). I see this as an area of intersection, yet again, between the final form of my research and the neoliberalised context (d'Albergo, 2016; Krautwurst, 2013; Rambo & Pruit, 2019) that I am working in, studying in and speaking to in my thesis. To summarise, alongside a broadly constructivist view on my incremental, situated and dialogic growth of knowledge (Fosnot, 1996; Kordes & Demsar, 2023) I am taking an epistemological approach that I would also describe as poetic for foregrounding the intensity of my emotive relationships as a key constituent in what it has meant for me to "know" neoliberalism in predominantly affective ways (Anderson, 2016; Franke, 2015; Valero et al., 2019; Zembylas, 2022).

One final point I wish to draw from my reading of Franke's impassioned philosophical and historical treatise on the "subordination" of liberal arts education into other, often applied fields of study, is their argument that:

those arts whose purpose is not to make money for itself is esteemed as the highest value for humans... when studied for their own sake thus partake of the kind of knowing

considered as itself the supreme realization of being human. (Franke, 2015, p. 615, citing Plato, Aristotle)

I cannot exaggerate how strongly I was provoked by reading Franke's juxtaposition of monetary worth being positioned as inferior to more intrinsic appreciation of knowledge, leading me to reflect on how the conflicted, challenging thoughts on the aims and design of my thesis have brought with them serious doubts over my purpose as a pedagogue and academic in the most profoundly existential of terms. My overarching thoughts on neoliberalism, and reflecting on at least some the moments that I have identified and written about as "epiphanies", to use Ellis et al.'s term (2011), are those which I feel may constrain my very sense of humanity – commonly venturing into deeply personal matters of wellbeing, values, fulfilment, relating to others – hence my earlier brief reference to Heidegger and contemplating how my line of inquiry has become so closely tied to my very sense of self and being. I therefore follow this line of thought a little further to see if I might reconcile my personal and philosophical concerns with my methodological approach and the development of this thesis overall.

Vignettes as microcosms of variegated neoliberalism:

Törrönen (2002, 2018) identifies three ways in which vignettes might be designed in qualitative inquiry – in their case, reflecting on their use of "stimulus texts" (Törrönen, 2002, p. 343) as part of qualitative interviewing processes – as:

- 1. "clues... to extrapolate how the texts stand for the whole (metonymy)";
- "microcosms... [to evaluate my present] worlds and identity positions against those of the stimulus objects (mimesis, identification)";
- "provokers... to deal with the established meanings, conventions and practices (symbolic dimensions, naturalness, normality) of the phenomenon under examination" (Törrönen, 2002, p. 343).

In my own usage, I have not primarily used my vignettes as a way of stimulating others' responses – though this methodology chapter does allude to some of my hopes for others' readings of my work – instead positioning myself as the first reader and analyst of my vignettes. I nevertheless find the multiple possible purposes suggested by Törrönen to be quite intriguing, prompting me to consider how my vignettes might have indeed functioned in different ways within my thinking over the timeframe of my studies. For example, during the early stages of creating my vignettes, I saw my first fragments of

writing as "clues" which I might extrapolate from singular instances or contexts to my longer lifetime and contemporary thinking around neoliberalism (Törrönen, 2002, p. 343), though they would only have retained such a function if I left them as incomplete, partial narratives in themselves (Rambo & Pruit, 2019). Later, in my first focused reading of the vignettes after their creation, I saw them as "provokers" (2002, p. 343) which challenged me to reflexively engage with my beliefs as an educator and researcher, revisiting troubling experiences and beginning to contemplate the methodological debates that I have explored so far in this chapter. However, within main body of my thesis, I feel that the most fitting framing for the functioning of my vignettes is as "microcosm" (2002, p. 343). In their more recent paper developing these conceptual strands further still, Törrönen (2018) suggests that my use of vignette-as-microcosm allows me to "consider vignettes as icons that mimic reality or realities, their actors, situations, acts, events and processes..." (Törrönen, 2018, p. 279). I feel that this is wellaligned with my earlier exploration of neoliberalism in its variegated conceptualisation (Brenner et al., 2010) and my emerging view of a long-term, gradual awareness of neoliberalism across the decades of my life. Törrönen continues, again speaking of participants in their interview-based study but in a way which I feel is still resonant with my own work:

The use of vignettes as microcosms creates possibilities to study processes and layers of reality that are difficult to articulate and deal with without counter-frames or points of comparison. It is a well-known difficulty to get interviewees to respond to direct questions about, for example, their values and how they have changed during the last 20 years... (Törrönen, 2018, p. 282)

The use of vignettes in my study has therefore been extremely practically helpful for drawing together experiences from across my lifetime, allowing me to contemplate commonalities and shifts across this timeframe in a way which I feel would otherwise be much more difficult to contemplate in more abstract or longitudinal terms from the outset. Once again in alignment with a view of neoliberalism as variegated across historical, political and geographical spaces (Brenner et al., 2010), Törrönen's suggestions (2018) therefore helpfully capture the interplay between my vignettes as a means of constructing localised, situated instances where I can gain sight of aspects of neoliberalism while retaining the possibility identifying threads which transcend the individual instances and illustrate the emergence or evolution of my position over time.

Incorporating vignettes into the thesis text

From the start of the writing of my vignettes, I have been mindful of how the instances I have recalled felt as though they may be examples of formative experiences where I have become aware of, or compelled towards, alignment or tensions between my actions with neoliberal ideological principles. The individual vignettes as microcosms therefore "imitate, illustrate or exemplify the object under examination from different points and levels of abstraction" (Törrönen, 2018, p. 279). However, while all of the vignettes originated from precisely such an intention, it is only through analysis that I might determine in which ways at least some of the vignettes may perhaps be understood as iconic representations of my lived experience of neoliberalism:

Iconic representation does not imitate the object all-inclusively. Rather, it produces the object selectively through raising only some of its features to the foreground... iconic representation can also bring into the sphere of mimesis invisible feelings and layers of reality. In this case the iconic representation gives them concrete contours and features to be sensed and discussed" (Törrönen, 2018, p. 279)

I have therefore found it particularly important to retain the full text of the vignettes within the main body of the thesis – each followed by stages of analysis as described later in this chapter – such that the reader may not only be guided through the overarching chronology of my life, but that the relative foregrounding and backgrounding of issues and actors will help to establish the specific purpose and relevance of each vignette, allowing me to sense the aspects of neoliberalism which I feel may be embedded in each chapter while recognising the inherently limited aspects of variegated neoliberalism which would be identifiable in such representations.

Huber (2022) and Humphreys (2005), organisational management scholars who have also used and advocated the use of vignettes in autoethnographic work, support the incorporation of vignettes within the main body of my text. They suggest that the inclusion of vignettes not only "constitutes a potent aide-memoire" (p. 12, citing Wolcott, 1995) to inform and galvanise the overarching research narrative, but that they also serve to draw the reader into the world of the researcher in an authentic, engaging way. My vignettes are written in dramatic and emotive terms as a heartfelt, rich account, seeking authenticity through the honest exposure of themes such as self-doubt, "emotional fragility" (Humphreys, 2005, p. 851) and other aspects that I have found so engaging and truthful when reading the work of others.

"Narrative" as a strategy for analysis, reflection and writing

The term narrative is one that I have found myself using often in my educational research-related teaching and supervision, mostly in quite general terms to explore research projects and communication of scholarly arguments in terms of narrative devices and structures, guiding an unfamiliar audience through the story of a research process from start to finish. In this thesis, I have attempted to create something of a "story structure" (Berger & Quinney, 2005, p. 4) to not only to convey my line of thought to the reader but also something more emotive and provocative, that I hope "appeals to both the intellect and emotions" (Berger & Quinney, 2005, p. 10); I incorporate the "evocative representations" (Richardson, 2000, p. 931) of my vignettes into my larger research narrative in an intentional and self-conscious way, as described by Kimpson: "In contrast to traditional scholars, those using narrative approaches that are explicitly self-reflexive acknowledge that (research) writing is a practice that is inevitably informed by who we are and how we live our lives" (Kimpson, 2005a, p. 74). This raises two important ideas for my research. First, that my experience of layered writing practices in this thesis – the creation of my autobiographical vignettes and the construction of my overarching research narrative by drawing threads of learning across the vignette-chapters – have indeed illuminated a complex interplay between my retellings of lived experiences, facets of past and present identities, and epistemological principles underpinning my sensemaking through the narration of my research process (Elliott, 2005).

Storying

Building on my initially broad thinking around narratives and narrativisation has been appealing as a way of constructing a comprehensible, directed and structured story: a connected set of ideas which is intended to be understandable to a given audience (Bamberg, 2011; Berger & Quinney, 2005; Holstein & Gubrium, 2012; Josselson, 2011). In the specific case of narrative social research, Schostak & Schostak capture the practice of storying, or story-ing in their hyphenated form, thusly:

Story-ing – as a wilful and intentional activity – frames our lived experiences into a narrative that has a past, a present and a future, and it is itself composed of many stories branching out into networks of intricate relationships with other stories and story-ings. In other words, story-ing constructs both time and space into chunks – it frames them – in ways that make sense to ourselves and to others. (Schostak & Schostak, 2015, p. 26)

I find their definition helpful for drawing together the intentionality of attempting to articulate ideas of personal importance to not only an audience but to ourselves reflecting my difficult introspective dialogue so far in my research - but also for their attention to elementary story structures as devices worth identifying and exploring in my analyses. Of specific note here is the notion of temporality, that my vignettes often incorporate a chronological element, a sequence of events or a plot that the reader is expected to follow from beginning to end (Chase, 2011; S. A. Hughes & Pennington, 2017; Richardson, 2000), and that my vignettes and the chapters containing them are also situated temporally in relation to each other, with a progression of episodes from my life over the thesis as a whole. However, Kim suggests that any narrative - including the individual vignettes and the overarching life story that they construct collectively – will include silences, omissions or edits that Kim describes as "Narrative Smoothing", presenting a "story [which is intended to be] coherent, engaging and interesting to the reader" (Kim, 2016, p. 192). This is helpful for establishing that, although raising questions around the faithfulness of my vignettes, for example, as a direct representation of factual occurrences, I can position this as a feature of my writing worth addressing directly in some of my analysis.

I feel that considering the intentionality and form of my vignettes in a singular and holistic manner goes some way towards addressing Richardson's descriptors of narrative inquiry, that my "narratives seek to meet literary criteria of coherence, verisimilitude, and interest" (Richardson, 2000, p. 931). As I have already provided substantive literary background to why I feel my topic of inquiry and my research should be of some import vis-à-vis the neoliberal educational experience, I am left to contemplate the final suggestion from Richardson above, that of verisimilitude as an idea which reminds me of my earliest supervisory discussions and one of the reasons for my turn towards this form of inquiry. For my work in particular, I turn specifically to what Denzin defines as "textual" verisimilitude (2014, p. 83) of autoethnographic writing: "It articulates the emotional, moral, and political meanings this world has for me. It works outwards from my biography to a body of experiences that have made a difference in my life and hopefully in the lives of others" (Denzin, 2014, p. 83). I am therefore reminded of my readings of the impassioned ethnographies and autoethnographies which have spoken so intensely to my experiences (e.g. Bacevic, 2019; Foster, 2017b; Kašić, 2016; P. Moore & Robinson, 2016; Nordbäck et al., 2022; Pereira, 2018; Rath, 2018; Springer, 2016, to

name but a few) and hope that my own work would be read as holding a similar degree of verisimilitude by my imagined reader. As ever, I recognise the potential for criticism of such a perspective though, as Schwandt (2007) warns that:

As a criterion for narrative inquiry, verisimilitude, and related nonepistemic criteria, have met with some strong opposition by scholars who claim that just because a story or narrative is compelling, plausible, lifelike, seemingly authentic, and so on, it does not follow that the story or narrative is necessarily true. (Schwandt, 2007, p. 323)

But it is in the final words of the quote above that I am directed towards a more practical way forwards in my methodology: reconceptualising the nature of the truth the narrative(s) – across my thesis and within the individual vignettes – will be claimed to represent.

At times, I have found myself reflecting on the progress I have made with my studies and contemplating the possibility that my vignettes and analyses "do not represent pre-existing phenomena, but instead are in a broad sense performative: they construct the phenomena they claim to document." (Hammersley, 2008, p. 146). Indeed, I have come to see my constructed vignettes and the overarching narrative of my research may be performances of the affective aspects of my life-history (Madison, 2023; Sughrua, 2016; C. Watson, 2006), so reassert that I align my approach with Kim who suggests that "the aim of narrative inquiry is to understand human experience that is meaningful, and our human actions take place informed by this meaningfulness, projected in stories and narratives" (Kim, 2016, p. 190). Taking such an approach which embraces the interplay between expressive written performance and my conceptualisation of neoliberalism "may be viewed as opening up space for the creative play of discourse or of some broader process of 'worlding'" (Kim, 2016, p. 154) in a way which leans in to the affectivediscursive aspects of neoliberalism so problematic and debated in my review of the literature (Anderson, 2016; Chowdhury, 2022; England, 2023; Leyton, 2022; Zembylas, 2022).

Layer I analysis: "descriptive" narrative readings and analytical codas.

As described above, I apply the term narrative quite broadly to describe the storystructure of my research thesis overall. However, there are also specific technical matters to consider in my recognition of individual autobiographical vignettes as short narrative constructions drawing from my own life history (De Fina & Georgakopoulou, 2015; Ellis, 2009; Kim, 2016; Stanley, 2010), and the use of approaches to analysis which foreground such an understanding of the text.

Moving from the early challenges to the direction and purpose of my doctoral research to the practical matter of writing vignettes and seeking a direction for analysis has not been easy, nor has it been a linear process, hence some of my oscillation between such ideas in the writing of my methodology. My thoughts on matters of purpose and belief around my research have emerged, evolved and have been challenged by my writing process, and my tendency to be quite self-conscious throughout. This is again of methodological relevance for how such involvement with the purpose and product of my writings might influence the way I craft representations of myself – or choose not to – for my imagined audience as I address the substantive foci of my research (Bamberg, 2011; Hoppes, 2014; Trahar, 2009; Wiesner, 2021). During the initial writing of my autobiographical vignettes, I therefore attempted to avoid dwelling on such tensions for too long with the aim of observing how I might identify related subtexts later, under reflection and analysis, and utilising the space of the thesis to explore such ideas more fully. Consciously, I therefore decided to focus on the construction of vignettes that prioritised the coherent expression of my ideas and provided as authentic and clear a depiction of my feelings on the matters at-hand rather than immediately turning to extensive reflection and analysis of form and content where possible.

Each vignette was originally written as an expressive, emotive recollection of troubling or otherwise personally prominent experiences. My initial entry into the analysis process was therefore to simply re-read each piece and consider the way the individual stories had been constructed, reflecting further on how the content and form of the writings relate to broader concepts or readings I have become aware of during my process of inquiry. Josselson describes this as a "narrative reading" of the texts:

A narrative reading of the text goes beyond identification of themes and attempts to analyse their intersection in light of some conceptual ideas that illuminate processes more generally. The aim is to illuminate human experience as it is presented in textual form in order to reveal layered meanings that people assign to aspects of their lives. (Josselson, 2011, p. 240)

Initially, this seemed like quite a vague proposition and, as Elliot suggests, "there is as yet no single analytic approach that can provide the definition for narrative analysis" (2005, p. 36) nor do there seem to be any more prescriptive instructions to such ends in more

recent methodological sources either (e.g. L. Cohen et al., 2018; S. A. Hughes & Pennington, 2017; Sikes, 2013; Wiesner, 2021). However, I have found that the intersections between my introspective thinking and the writing of my vignettes, prompted by my professional experiences and concurrent reading are indeed reflected in what Josselson has suggested above. I have therefore found it quite sufficient to settle on just a few guiding principles for my first narrative readings of the vignettes I created, informing how I have come to make sense of them and express my analysis to my reader, again providing just a conceptual foundation which I continue to build on later where appropriate.

My full set of autobiographical vignettes were written before beginning any formal process of analysis due to the constraints of my working as a part-time PhD student and a full-time university teacher. Therefore, prior to beginning my narrative reading, my initial task was to quite simply revisit each vignette to see if they might still elicit any emotive response, and if the writings seemed to remain relevant to my interests for further consideration. As Sampson & Johannesen noted in their use of vignettes with interview participants: "the vignette provided a focal point that was easy to register reactions to" (Sampson & Johannessen, 2020, p. 57). and that my somewhat distanced rereadings - as noted elsewhere, a minimum of a year after the initial writing of the vignettes - would likely allow me to confirm whether or not my recollection would elicit an emotional response and that the stories still seemed relevant to my research concerns. Only after my initial re-readings then did I examine the narrative in further detail and begin to write complementary analytical commentary, attempting to explain points of resonance arising with my broad experiences and readings in the field of Education Studies and my initial literature review of key concepts, earlier (Sundler et al., 2019). Kim describes the temporal and written placement of analyses after short vignettes using the musical parlance "**coda**" (2016, p. 4), drawing on Labov's application of the concept to narrative inquiry as "a way to bring the storyteller and the listener back to the present time of telling from the retrospective mode of telling and listening" (2016, p. 4). My guiding commentary, along with shifts in formatting of the text therefore signposts the reader to where I move back and forth between vignette and coda in the main chapters of my thesis.

I have been keen to experiment with these emotive and engaging forms of writing in my thesis in ways which might help me to explore and express aspects of my research journey. However, in the analytical process depicted above, Kim advises "avoiding an epic closure" (2016, p. 234) in the context of narrative autoethnography, particularly where purposes and forms of writing elsewhere may already be deliberately emotional. They recount their own experiences of being accused by a blind reviewer on a research bid that their hopes of giving voice to marginalised groups through their inquiry amounted to little more than an attempt "to disseminate his/her own propaganda" (2016, p. 234). Given the socio-political nature of the source of my concerns, and my positioning of actions and actors (including myself) in deleterious terms at various points in the thesis, I ensure that my concluding remarks to each chapter act as a summary of points of learning grounded in my analysis, limiting unintended or unfounded recourse to hyperbolic rhetoric. This may be a fine balance to achieve as I would still hope that my concluding remarks in individual chapters will "help [my] reader to have an empathetic understanding of the lived experience" (Kim, 2016, p. 233) that forms the basis of my work. I also notice how the wider structure of the thesis similarly reflects a continually uneasy dance between emotive and analytical writing, again situated within the narrative tradition as Clandinin & Connelly summarise: "What do narrative inquirers do? They make themselves as aware as possible of the many, layered narratives at work in their inquiry space. They imagine narrative intersections, and they anticipate possible narrative threads emerging" (2000, p. 70). I find the device of "threads" woven through my inquiry to be quite helpful too, proposing that I attempt to draw together strands of learning across the chapters of the thesis, transcending the bricolage of individual vignettes and analyses. I am satisfied and intrigued by the various narrative possibilities within and across the chapters of my research so I will now turn my attention to a few more specific features of the individual vignettes which I use as an initial prompt for my reflective readings.

Characterisation and a narrative sense of self

As Tienari neatly captures when introducing their own autoethnographic study, I notice how "autoethnographies are about identity... It seems that the purpose is to make sense of our fragmented lives and to move beyond everyday experiences to enable meaningful reflection" (Tienari, 2019, p. 332). Bamberg (2011) similarly explores the role of narrative for exploring an author's sense of self and negotiating identities with an

audience, problematising some of the terms I find myself using in later chapters. I selfidentify in various ways throughout my narrativisation of my experiences, "interpretable as making claims vis-à-vis the who-am-I question... by implementing and choosing from particular repertoires that identify and contextualise [myself as writer] along varying socio-cultural categories" (2011, p. 6). Reading my vignettes as narrative constructions, a key point of analysis will therefore be my choices in self-representation, and how I orient myself towards signifiers that may be recognisable and evocative to my audience (Bochner, 2016).

Bamberg (2011) also draws attention to the particular purpose of my vignettes and subsequent constraints on the sort of identities that are possible in my autobiographical, if occasionally fictionalised approach (which I explore later in my ethical considerations for this study). While I see Bamberg's suggestion that free-form fictional writings can allow for an exploration of "novel identities" as being quite sensible (2011, p. 7), the more constrained nature of my vignettes as a type of creative non-fiction leads me to contemplate the reducing, fixative nature of my writing process: "The delineation of what happened, whose agency was involved and to what degree, and the potential transformation of characters in the course of unfolding events are firmly in the services of demarcating and fixing the identity under investigation" (Bamberg, 2011, p. 7). Exploring characterisations within my vignettes in such detail leads me to therefore contemplate diachronicity - change over time - of the identities constructed in my narrative representations and indeed synchronic representations, those which seem to be situated specifically in a singular moment or context of my writing (Lewis-Beck, Bryman, & Futing Liao, 2004). Complementing the temporal elements of my storying discussed earlier, I therefore note how each of my vignettes explicitly or implicitly constructs synchronic characterisations of myself or others, including individuals, well or ill-defined groups, or institutions of education or employment (Elliott, 2005). One of the ways in which my initial approach to writing personal, emotive autobiographical vignettes has become particularly methodologically relevant is where I have noticed occasional recourse to an imagined self, albeit sometimes implicit in the form of the text: "In the telling we remember, we rework and reimagine the past, reflect back upon ourselves, and entertain what we could have become" (Berger & Quinney, 2005, p. 5). For example, I might allude to an underlying idealised image of a "good" teacher or learner, being or being perceived to be a highly competent individual, or perhaps being the progressive and liberally-minded person I aspire to be, maybe even free of the constraints that have brought such concerns to the forefront of my thinking so far. However, I feel it is important to remember at this early stage of my thesis that understanding my characterisations of actors, and particularly myself, within my vignettes are not elements which I immediately assumed to reflect "traits... organizing the actions and the course of unfolding events as outcomes from motives that spring off from this interiority" (Bamberg, 2011, p. 12) but that I take an intentionally cautious view that these ideas may be – initially at least – situated within the narrative itself. It is only with the application of a process of autoethnographic analysis and reflection, within and across chapters, that I can begin to contemplate how threads of learning may emerge, and the specific nature of any claims and contributions to knowledge I can make as a result.

Focus on affects: fear and anxiety

I very much align my work with the approach described by Ellis (Ellis, 2009; Ellis & Bochner, 2006), that autoethnography allows for a foregrounding of "people's emotions and intentions, how they create meaningful lives, and how they experience and cope with the problems of living" (T. E. Adams et al., 2015, pp. 1–2, quoting Ellis, 2015). I am therefore mindful of the interrelationship between the principally affective provocation for my selection of events for retelling and therefore the inherently emotive tone of the vignettes I produced as a result. Building on the problematisation of neoliberalism and affect discussed in my earlier literature review, I can therefore identify the most prominent emotive aspects of my vignettes while recognising that they are shaped significantly by myself as author, again not taking such narrative constructions to be a literal, totalising representation of any self beyond the space of the narrative (Berger & Quinney, 2005) but merely as a thematic microcosm of interest (Törrönen, 2002, 2018). This is just one of the ways in which I have found the production and reading of my vignettes helpful for exploring matters of personal importance as suggested by Ellis et al. as exactly those that my initial, quantitative attempts at research design would have failed to capture: "autoethnography is one of the approaches that acknowledges and accommodates subjectivity, emotionality, and the researcher's influence on research, rather than hiding from these matters or assuming they don't exist" (Ellis et al., 2011, p. 274). Embracing these ideas - and seeking reassurances in doing so - has been particularly important to me as I have navigated the evolution of my initially uncertain, exploratory research process.

As described earlier, my initial writing of vignettes was driven by reflecting on experiences I have been most emotionally troubled by, the moments where I felt strongly constrained, controlled, coerced by influences that I have come to label "neoliberal". Despite being such a central provocation for my original writing of the vignettes, I recognise that such thoughts arose long before developing my understanding of neoliberalism as extensively as I have presented earlier in this thesis (Chapter 2). Drawing on my earlier literature review, the significance of affect as a potential mechanism guiding internalised understandings of neoliberalism (Anderson, 2016; Bacevic, 2019; Chowdhury, 2022; Valero et al., 2019; Zembylas, 2022) is therefore one of the insights I hope my life writings might provide, as Zembylas summarises: "Affective subjectivation is the process of the subject being governed through affects; in other words, this notion describes how people come to know themselves and others through forms of affective management" (Zembylas, 2022, p. 6). Expressions of affect therefore become more than just a starting-point and instead a more of substantive focus for some of my analyses with specific relevance to the way I have come to experience neoliberalism in my world. Nordbäck et al. (2022), for example, demonstrate such an approach in their recent collaborative autoethnography in Finnish Higher Education, described by the authors as an increasingly neoliberal context following the model of the UK. They go on to foreground affect in their depiction of academia as a space of constrained identity work: "Fear for job security becomes a chronic condition; life becomes a struggle where identity is muddled" (Nordbäck et al., 2022, p. 345) and thus raise this as a productive space for focused exploration and anlaysis. This is just one of the numerous negative affective terms that I have seen used across the literature on experiencing neoliberalism - as discussed earlier in the literature review - and therefore is a key area that I continue to reflect on across my chapters and analyses, retaining a problematic view on the nature of such a presence and its relationship to constructs of neoliberalism and subjectification.

I find Zembylas' phrasing helpful in drawing this section of my methodology to a tentative but purposeful conclusion: "While neoliberalism does influence contemporary affective life, it is not always clear how affects and emotions are organized through specific subjectifying practices that constitute 'neoliberal subjects'... it needs to be shown how and why these values are innately 'neoliberal'" (2022, p. 5). My storying and narrative analyses therefore may not inherently capture subjectification per se, but instead, similar to Zembylas' reading of Brunila and Valero's work on neoliberalism in

higher education as I cited earlier, I move forward with the belief "that the intensities of affect grasped in the fictional stories show that neoliberalism is incarnated and instantiated in academic subjects" (Zembylas, 2022, p. 7, citing Brunila and Valero, 2018) and that more precise points of learning may emerge through my application of a bricolage of theoretical perspectives to help explore how, collectively, these may characterise aspects or reflections of my lived experience of neoliberalism.

Methods (of resistance) II: Bricolage

After several years of grappling with my research problem, attempting to apply a quite linear and mostly quantitative approach, it eventually became apparent that the complexity and fluidity of my field of interest was not going to be easily addressed in a way that demanded a rigid linear structure, clear a priori hypotheses or a singular theoretical framework. On a personal level, I felt hesitant to narrow my focus and was resistant to the idea of limiting my study to only easily measurable aspects or singular situated instances; I would not be satisfied with a reductive, constrained study driven by such conceptual and methodological restrictions. In this section, I briefly explore my understanding of bricolage as a research approach and how I feel it could satisfy my wishes for this thesis, explaining how I combine this with my vignettes in the hope this will lead to a coherent and insightful study, capturing rather than avoiding the complexity of my topic and research journey.

Bricolage was first brought to my attention by my PhD supervisor who described the origins of the French term Bricoleur, a "handyman" ('Bricoleur', n.d.) who undertakes the act of Bricolage: "construction... achieved by using whatever comes to hand" ('Bricolage', n.d.). Though proponents of bricolage as an approach to critical social research have drawn on the complex anthropological work of Levi-Strauss in "The Savage Mind" (1966, as cited by Kincheloe et al., 2004), even the simple definition above neatly captures how bricolage reflects the way my study has evolved. My autobiographical vignettes were created alongside continual, broad reading in the social sciences and beyond, and as I explored a variety of theoretical perspectives I was struck by how disparate authorial voices seemed to speak to my reflections as they emerged across the chapters of my life story. Roberts (2018), drawing together several perspectives I have found influential for shaping my methodological approach, captures my position in arguing the power of bricolage in the design of my research: The researcher-as-bricoleur is reflexively governed by 'a respect for the complexity of the lived world' and a care towards the world... The lived, everyday, and performative, therefore, is the 'space' within and from which the world – our world, this world, any given world we are speaking towards – erupts into being. (Roberts, 2018, p. 4, quoting Kincheloe et al., 2011, p. 169, and citing Heidegger, 1962; Denzin, 2003)

Within and across chapters (as I will illustrate shortly), the performance of my expressive writing process (Denzin & Giardina, 2017; Richardson, 2000) and my application of a variety of theoretical frames in a way that I initially found unusual in comparison to linear-monolithic research designs (McSweeney & Faust, 2019) are the precise features which bind my research journey so closely to my sense of self and the aforementioned verisimilitude of my thesis (Ellingson, 2014). At this stage of my methodology, having explored the main strands of my practical approach to the creation and analysis of narrative data, I now turn to some of the more foundational assumptions that are embedded in my work, and I how I would choose to situate my research in an academic and philosophical context.

Anti-naturalism, Interpretivsism and Crystallisation

Richardson describes ethnographic writing in a way that I would extend to my intentions in combining bricolage and autoethnography as a "Creative Analytic Practice" (2000, p. 930) which frames "the writing process and the writing product as **deeply intertwined**; both are privileged. The product cannot be separate from the producer or the mode of production or the method of knowing" (L. Richardson, 2000, p. 930, my emphasis). As I have approached the completion of my study, I have therefore become quite interested in how aspects of my work might be described as anti-naturalist (Bevir & Blakely, 2018) for my oppositional stance to the application of epistemological perspectives predominant in the natural sciences to research in the social sciences (Ban, 2019; Benton, 2016), not to be confused with research conducted in ecologically valid ways: investigating phenomena in their "natural state" (L. Cohen et al., 2018, p. 19, citing Hammersley and Atkinson, 1983). I realise that anti-naturalism is – much as with any paradigmatic label – a contested term (Schwartz-Shea, 2019; Wedeen, 2019) but, as recent advocates of anti-naturalism Bevir and Blakely, in response to some of their critics, summarise:

Social scientists manage to explain social reality only insofar as they construct narratives about the societies they study that are true to the meanings of the actors in those societies. This is in sharp contrast to the dominant philosophical view in the social sciences, whose

explanatory apparatus is formal and mechanistic—a philosophical view that we ... [refer] to as 'naturalism'. (Bevir & Blakely, 2018, p. 495)

Anti-naturalism therefore helpfully captures my interests in its commitment to "uncovering oppressive social structures obscured by positivist analysis" (Wedeen, 2019, p. 486) and an openness to methodological pluralism which aligns well with application of bricolage in my work (Bevir & Blakely, 2018, 2019). I am also drawn to the adequacy of intentionally limited, situated knowledge that is claimed about sociological phenomena in the anti-naturalist view and the research narratives which may be deemed legitimate within such a paradigm, though this happens to be a particular area of disagreement in the political science literature closest to Bevir and Blakeley's original focus (e.g. Glynos & Howarth, 2008; McAnulla, 2006; Tikly, 2015). One such critique which I find to be notably relevant to my own work would be Marsh et al's (2014) assessment of Bevir and Rhodes' conceptualisation of interpretivism (Bevir & Rhodes, 2005, 2012), the foundation for Bevir's later development of anti-naturalism with its more bespoke, oppositional framing. They argue that a strongly interpretivist, as opposed to a critical realist, view of political experience falls short of allowing for the assertion of causal relationships between political "traditions" (D. Marsh et al., 2014, p. 341), institutions and individual agents, and that taking in interpretivist and therefore antinatural approach I "wouldn't accept that there is a material world, with causal powers, that exists independently of the way in which it is narrated" (D. Marsh et al., 2014, p. 341). This is a useful prompt for me to continue to consider the nature of claims which might arise in my research, following my earlier problematisation of neoliberalism and its variegated forms which I might follow and understand by narrating my own experiences.

Anti-naturalism's proponents and critics, and the uncertain direction of such matters in academic research which have been argued to undermine and marginalise qualitative inquiry in general (Bonache, 2021; Denzin & Giardina, 2016), is likely an arena that I will continue to follow in the future. However, as a relatively recently debated and developed label, "anti-naturalism" does not appear in most of the other sources that I have explored elsewhere in my methodology and wider thesis. I have therefore found it helpful to also consider my work – and my response to the critical view of authors such as Marsh et al. (2014, above) – to be aligned broadly with the principles of interpretivism as a more established and frequently used term in my chosen methodological texts, whether qualitative or quantitative in focus (e.g. Babones, 2016; L. Cohen et al., 2018;

Denzin, 2014) and in particular applied to my central methodological descriptors of narrative autoethnography (e.g. Davis & Warren-Findlow, 2011; Eisenbach, n.d.; Le Roux, 2017; Sikes, 2013) and bricolage (Kincheloe & Berry, 2004; Markham, 2005; Roberts, 2018).

Interpretivism is positioned by authors such as Cohen et al. (2011, 2018) and Walliman (2011) as one of the extreme ends of a positivist-interpretivist spectrum of paradigmatic labels; interpretivist research is as far away from the empirically purist, objectivist tenets of positivist natural science as it is possible to be, much as the aforementioned "anti-naturalism" label would suggest. However, it is the specific foregrounding of "the recognition that subjective meanings place a crucial role in social actions" (Walliman, 2011, p. 4) that is of central importance to the approach I have taken to developing my autoethnographic analysis in later chapters. I align my work with the following broader definition of interpretivism, which at least appears to be an area of agreement between Bevir et al. (2018) and one of their recent, vocal critics:

Interpretivists argue that we cannot understand why people do what they do, or why particular institutions exist and operate in characteristic ways, without grasping how people interpret and make sense of their world and act on their interpretations... we must draw upon our own social experience or capacity for learning... [and] any attempt to find universal causal relationships grounded in some fixed human nature or form of society is futile. (Hammersley, 2013, p. 27)

This is very much aligned with my introspective intent in this study, seeking to understand layers of interpretation in my recollection and storying of my life history while being mindful of my shifting social position in personal, educational and professional contexts. Hammersley goes on to discuss the relevance of hermeneutics (2013, p. 29, as I have briefly alluded to elsewhere) and phenomenology (p. 30) as a potential application of interpretivist methods. However, I am reluctant to engage with the latter as a complete, paradigmatic methodological framing at this early stage of my thesis, as although I use the term phenomenon at points of my writing in a very general sense, and I am indeed interested in "phenomenology... as a philosophical analysis of the different types of world-disclosure (perceptual, judgemental, imaginative, recollective, and so on)" (Zahavi, 2012, p. 2) and utilise some related sources to help inform the structure of my work (Gill, 2014; Pitard, 2019; Sundler et al., 2019), I feel that such a label would not be an authentic representation of the grounded, exploratory and narrative-focused evolution of my research journey as illustrated so far.

Drawing together my epistemological considerations

I am minded of the importance of establishing how the chapters to follow will somehow culminate in meaningful knowledge, even while I aim to negotiate a position of intentional and precise "epistemic humility" (Watts, 2022, p. 468; also explored as epistemic modesty by Christensen, 2021) about the nature or substance of what my findings might be. I therefore find Kordes & Demsar's pragmatic suggestions helpful in giving me some direction in what would be useful at this stage of my writing: "first-person research requires a novel, non-objectivist epistemological framework better suited to its specific object of investigation: a framework which will enable making sense of the plurality of approaches to examining experience and the variability of their results" (Kordes & Demsar, 2023, p. 341). Attempting to coherently draw together and precisely conceptualise the nature of the knowledge created from the theoretical bricolage applied to my autobiographical vignettes is therefore a central epistemological concern. Further still, I am drawn to Jordan & Wood's suggestions for addressing such a challenge, that "one response.. might be to... reconceptualise key concepts such as triangulation. Substituting it with Ellingson's notion of 'multigenre crystallisation'... 'crystallisation combines multiple forms of analyses and genres of representation into a coherent text" (Jordan & Wood, 2017, p. 153, citing Ellingson, 2014). Jordan & Wood's description therefore seems to be quite a close fit for my needs and, coincidentally, is reflective of my shift from a mixed methods project to autoethnographic bricolage during the timeline of my doctoral studies, so I will now turn my attention to a more complete definition of crystallisation to identify where and how I might apply this to my research.

Crystallisation

Crystallisation (note that I tend to use an anglicised version as opposed to the original authors' Americanised form) is a term developed by Ellingson (2014) – attributing its conceptual origins to Richardson (2000) – as an approach to qualitative inquiry which seeks to "to deepen the understanding of a topic by analysing and describing it in different forms, while resisting conventions regarding how findings should be presented" (Barbosa Neves et al., 2023, p. 39, citing Ellingson, 2009; Richardson, 1994). Though my work does not bring together a wide variety of "genres of representation" as suggested by Ellingson (2009, p. 4) I am nonetheless drawn to what I see as an alignment in purpose and ethos of crystallisation to that of Kincheloe et al.'s bricolage (2005; Kincheloe, Hayes, et al., 2011; Kincheloe & Berry, 2004). In particular,

Ellingson's own words ring strongly resonant of my epistemological stance and my hopes in this inquiry: "The need to dazzle gradually-that is, to reveal knowledge as fragmentary, contingent, and irreducibly complex-manifests as a guideline for understanding and practicing crystallization" (2009, p. 30). In Richardson's original terms (2000), I find the metaphor of a crystal helpful for representing the multifaceted nature of variegated neoliberalism across contexts and my lifetime (Brenner et al., 2010; d'Albergo, 2016), and how my perspective on my experiences may be refracted through my bricolage of vignettes and application of varied theoretical perspectives (Barbosa Neves et al., 2023; Ellingson, 2009, 2014). My perception of how affective, educational and socio-political threads seem to have been woven throughout my life-course – despite my more recent labelling of neoliberalism to such aspects of my life – is indeed that such ideas have been irreducible in their complexity, particularly in a way that might be measurable in a quantitative sense, as I have described elsewhere. For the fragments of my life story, and my analytical codas, to come together as some form of coherent or - to stretch the metaphor – crystallised meaning and, crucially, a defensible contribution to knowledge is therefore extremely important for me to consider to ensure my research achieves the requirements of doctoral study and examination (Wellington et al., 2005).

Operationalising crystallisation: Ellingson's six axioms

Put simply, Cugno and Thomas commend Ellingson's crystallisation approach as having both a "pragmatic and artistic appeal" (2009, p. 114) which I feel appropriately captures the qualities I most value in my multifaceted yet unifying intent with the methodological approach employed in this study. However, I am also particularly keen to use crystallisation as a way of exploring the nature of my claims to knowledge which may arise from a study that – as a process – did not originate nor proceed with a definite structure or singular linear direction. Ellingson, again following Richardson (2000), positions their six axioms of crystallisation within a social constructivist frame (Ellingson, 2009, 2014), which I will now work through and reflect on in the context of my own work:

 "First, meaning is constructed in communication, through language... Meaning thus resides not in any one person, but between people who continually (re)negotiate it" (Ellingson, 2009, p. 32).

As discussed, life history vignettes form the central base of data for my study. These are read as complex personal narratives; although claimed to be a retelling or fictionalisation of past occurrences, they are to be seen as a site of negotiation between my present self, my memories of the contexts I have inhabited, and my imagined audience toward whom I story my experiences.

 "Second, we constitute our sense of selves as comprising various identities... through repeated performances rather than simply perceiving aspects of a unitary, fixed self... constructed, maintained and transformed through communication" (Ellingson, 2009, p. 33).

A commonly recurring theme of my later analyses and my interests are indeed the sense of self and emerging identities in the "performance" of my vignettes: how these reinforce or conflict with my current sensibilities and thoughts on neoliberal influences, and where my perspective at the times depicted in earlier vignettes may not necessarily be as well-defined, developed or in alignment with my more recent positioning.

 "Third, qualitative methods and approaches (including crystallization) exist both as constructions themselves and as a means of understanding cultural constructions of meaning... [which] enable us to learn something about a group or a setting and tell us about the research and the process of studying" (Ellingson, 2009, p. 33).

As an autoethnography, the "group" of central interest in my research is of course myself, but this axiom of crystallisation nonetheless again directly addresses the confluence of complex interrelationships between my past and current positioning on matters of learning, professional practice and epistemology that have relevance not only to some of the incidents and analyses explored in later chapters, but to my methodological decision-making in this thesis.

 "Fourth, when we produce an account of research... we must not become so enchanted with our evocative story or eloquent analysis that we romanticize an account as embodying Truth, instead of recognizing its inherent partiality" (Ellingson, 2009, p. 33).

I absolutely agree with this as a principle of the research process but am also mindful that this is the area in which I perhaps move furthest away from a purist application of crystallisation, for this is where the collation of multiple representational forms (rather than my predominant use of personal narrative)

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are positioned by Ellingson as a practical device for disrupting any inadvertent and unwarranted generalisations from a singular perspective or source (2009, 2014). As it is, I acknowledge this as a necessary compromise in my work, one that does not undermine my alignment with the other descriptors of a crystallisation approach. I would also note that where Ellingson advocates "segmenting, weaving, blending or otherwise drawing upon two or more genres or ways of expressing findings" (2014, p. 445) that I do see my application of theoretical bricolage as going some way towards addressing this axiom of crystallisation.

- "A fifth underlying principle of crystallization is that researchers cannot escape systems of power" and that, in my use of bricolage and autoethnography in the pursuit of crystallisation "I invoke authorial power in order to claim the legitimacy of an alternative approach" (Ellingson, 2009, p. 34). As above, Ellingson is making reference to the partial truths embedded in a variety of representations and I am again drawn not only to the resistive qualities of crystallisation but also that my application of a theoretical bricolage across my research serves as an adequate analogue for drawing together situated ideas towards a coherent yet inherently complex thesis.
- "Finally, crystallisation reflects a grounding of knowledge production in the body... resisting the disembodied voice that characterizes traditional academic prose. When researchers' bodies remain unmarked and hence naturalized as normative they reinscribe the power of scholars to speak without reflexive consideration of their positionality" (Ellingson, 2009, pp. 35–36). Ellingson's words speak strongly to the specific nature of my research interests and how the process and product of my learning to the point of beginning and carrying out this thesis research has been so challenging. The affective origins of my concerns and my turn towards exploring neoliberalism so broadly are so intractably intertwined with my past and current life that I feel it would be inauthentic and personally unfulfilling not to fully integrate this into the form and function of my approach to researching and the presentation of my thesis.

In summary, I am confident that my work is well-aligned with the axioms of crystallisation with just a few minor adjustments to suit the specific content and structure

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of my research. I will now explore how this epistemological framework will therefore be reflected in the form and function of the later chapters of my thesis, drawing together facets or "threads" of learning through iterations of review and reflection as I draw my work to a conclusion.

Layer II analysis: reading across chapters, identifying threads of analysis

Not to be confused with my approach to making sense of the individual vignettes which form the basis of each of the major chapters to follow, identifying narrative features as a starting point for my process of autoethnographic analysis, I am intrigued by the possibility that the chapters of the thesis to follow can also be read as an overarching but fragmented research narrative:

Although the narrative of the ethnography is presented in somewhat linear fashion, it is interspersed with ideas presented in other genres. The juxtaposition of these elements is, to a degree, highlighted by reflections on the epistemological premises and potential consequences of fragmented narrative and knowledge. (Markham, 2005, p. 814)

Indeed, that my life writings do not form a monolithic autobiography and instead are positioned as fragmentary vignettes is quite intentional, writing just short pieces on key occurrences as described earlier (Törrönen, 2018) each followed by situated, focused codas of analysis and reflection. In each of the vignette-focused chapters, I tend to utilise neoliberalism as a descriptive category (d'Albergo, 2016) to relate each vignette to an aspect of neoliberalism raised in the extant literature along with reference to varying theoretical frames, selecting those which seem most closely related to the contexts athand (Kincheloe, 2005; Markham, 2005; McSweeney & Faust, 2019; Roberts, 2018). My process of writing and analysis therefore closely and reflexively (Humphreys, 2005; Pitard, 2017; Schwartz-Shea, 2019) follows the principles of bricolage as proposed by Kincheloe et al.:

The bricolage is dedicated to a form of rigor that is conversant with numerous modes of meaning making and knowledge production... These alternative modes of reasoning and researching always consider the relationships, the resonances, and the disjunctions between formal and rationalistic modes of Western epistemology and ontology ... [taking into account] the rigor of the hermeneutical understanding of the way meaning is preinscribed in the act of being in the world, the research process, and objects of research. (Kincheloe, McLaren, et al., 2011, p. 169)

The late Joe Kincheloe and his collaborators' words therefore draw together the practicalstructural aspects of my thesis with the prominence of hermeneutic considerations which seem to have become an important strand of my research. Bricolage allows me to embrace the complexity of the subject-matter I have chosen to engage with, the evolving and variegated form of neoliberalism in the contexts and experiences I have discussed (Brenner et al., 2010), while recognising, reflecting upon and responding to its problematic transcendence through my sense of being and acting within the world and – as per my repeated recourse to papers depicting the neoliberal colonisation of education and academia – throughout the research process itself.

In support of such a reflexive approach – as I will explore in more detail shortly – I will now explain the second layer of my study by revisiting each of my chapters with yet further distanced perspective from the initial process of writing the vignettes (Pitard, 2015). Reading across my bricolage, I identify threads which flow or develop through multiple chapters and which begin to illustrate facets of my core issues of interest in this study (expressed as my layer II research questions at the conclusion of this chapter) in a manner aligned with Ellingson's crystallisation. These concluding sections of my thesis will illuminate strands of my learning about the functioning of neoliberalism across contexts and chapters of my life story emerging from the bricolage, in addition to the intersections with my disciplinary interests, the technologies of neoliberalism discussed in my literature review (Chapter 2) and illustrated in Figure 3 below. In this phase of my work, I move from my descriptive use of neoliberalism within chapters to a more analytical consideration of neoliberalism, seeking to explain noticeable commonalities and evolutions across the chronology and contexts of my vignettes in addition to the longer-term functioning and development of my subjectivity and subsequent selfawareness in such terms (d'Albergo, 2016).

Layers and structure of the thesis

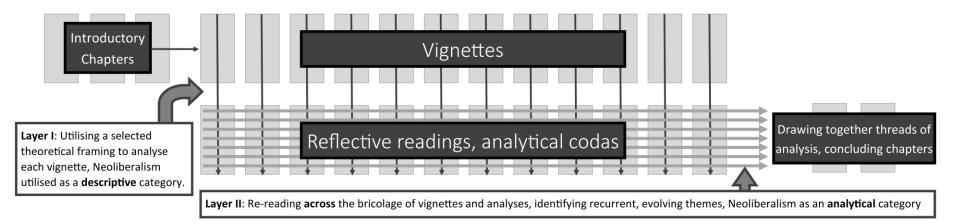


Figure 3: Thesis structure and the two "layers" of analysis.

Together, these two layers of analysis follow d'Albergo's recommendations for researching variegated neoliberalism (citing Brenner et al., 2010) that "revealing the presence or otherwise of market-oriented strategies, regulation or behaviour would be a good starting point" (d'Albergo, 2016, p. 331) – the main body of layer I, the bricolage of vignettes and analytical codas – and then "Identifying different patterns of neoliberalism … should make it possible to distinguish (through comparison) what regulations, practices, etc. in different places look like, share or otherwise, and above all why" (d'Albergo, 2016, p. 331): layer II, reflecting on threads emerging across the bricolage.

Reflexivity as a researcher, researching neoliberalism

Developing and defending my approach in/to neoliberal academia

The form and style of this thesis document are an unsubtle reflection of my concerns with the epistemological aspects of neoliberal rationality and its relationship to my perspective on predominant traditionalist discourses surrounding the production of a PhD thesis within my contemporary professional context of Higher Education (Reddy & Amer, 2023; Valero et al., 2019; Zembylas, 2022). Throughout the years of work towards this thesis, I have wrestled with the need to meet what I perceived to be the expectations of doctoral-level research while developing a body of ideas that I feel will honestly and authentically make a meaningful contribution to knowledge around my topics of interest. Jordan and Wood (2017), sharing their view of a subtle but steady shift in discourses surrounding educational research during the later part of the twentieth century and into the early decades of the twenty-first, led me to contemplate how this is a matter of concern not just for the examination of my own doctoral thesis, but may also be a reflection of broader issues within contemporary western academia and social science in particular:

Despite an openness to approaches other than positivism, we noted a distinct intellectual drift ... that defined qualitative research as subordinate, ancillary and ultimately peripheral to quantitative methodology. This intellectual drift, we argued, has largely been conditioned by the emergence and coming to power of neoliberal forms of governmentality that have... increasingly rendered structures of feeling and thought that articulate with the 'value chain' of contemporary capitalism. (Jordan & Wood, 2017, p. 157)

I am therefore unsurprised that framing my work as a bricolage based entirely on a qualitative base of data, for example, has brought with it a degree of fear and uncertainty of negative reception from some quarters in my contemporary academic context, however well this may have been defended against by advocates of such approaches to research (Kincheloe, 2005; Kincheloe, Hayes, et al., 2011; Kincheloe & Berry, 2004). Roberts, for example, describes "a textbook case of a bricolage sensibility having to go through the mill of justifying itself within the academy" (2018, p. 8) not dissimilar to the experiences of autoethnographers in previous decades (P. Atkinson, 2006; Ellis et al., 2011; Ellis & Bochner, 2006; Holt, 2003) and even quite recently (Rambo & Pruit, 2019), further enflaming my anxiousness to ensure that taking such approaches will be received as a positive and credible contribution to my field (P. Atkinson, 2006; Holt, 2003; Le Roux, 2017; Muncey, 2010; Sikes, 2013; Winkler, 2018).

Critically, even this fundamental aspect of my approach to authoring my research thesis is an area I feel compelled to reflect on as being heavily influenced by my position within power relationships and politicised contexts, locating myself in a relatively junior position in the neoliberal academy. Prior (2004), reflecting on matters of authorial power in qualitative research, takes a Foucauldian view in suggesting that the legitimacy of assertions based on my research will be dependent on precisely the complex landscape of discourses and power relationships that have given rise to my concerns in the first place:

One of the guiding themes of Foucault's entire oeuvre involved the rejection of the 'author' as the source and origin of textual knowledge, whilst in place of authorial intent and design, Foucault attempted to examine the discursive rules through which knowledge comes to be produced, encoded and displayed. For, according to him, it is only by means of such rules that any 'author' can claim a legitimacy to speak, write and authoritatively pronounce on a given topic in the first instance. (Prior, 2004, p. 318)

Prior's words very much capture tensions arising in the early stages of my autoethnographic studies between what I felt might be perceived as legitimate research and my desire to produce an authentic, personally meaningful thesis. I was disappointed to read how Rath (2018), describing their experiences of attempting to submit a dissertation utilising narrative vignettes within the main body of text, not dissimilar to my own approach and others' (e.g. Charteris et al., 2017; Kimpson, 2005b), found themselves unceremoniously rebuffed by institutional gatekeepers. They recount how their:

ideas and desires... intra-acted with and were rendered impossible by the ... neoliberal academic assemblage and what kinds of knowledge it values, by what acceptable means that knowledge can be made intelligible, and how unruly knowledge is made to mind. (Rath, 2018, pp. 810–813)

Reading of experiences which seem so close to the context of my own research – normative epistemological frames aligned with neoliberalism will emerge over the chapters of my thesis as a problematic yet influential thread of my educational history to date (Chapter 13, threads 5, 6, 7) – leads me to notice a jarring juxtaposition between my initial conformist designs for a linear, quantitative research thesis and my substantial departure towards the presentation of a less traditional bricolage of vignettes, codas and layers of analysis. I am left with the dilemma that pursuing anything different to the approach I have committed to in the presentation of this thesis would seem as though I am "succumbing to the pressures to make my work more conventionally intelligible... no

longer an authentic representation of the thinking and seeing and knowing I experienced in the doing of this inquiry" (Rath, 2018, pp. 810–813). I therefore feel adequately motivated and justified to maintain a centrally affective dimension to my work, and the integration of my autobiographical vignettes as an element of the overarching narrative of my research, rather than seeking to disentangle this in some disingenuous way. By framing my work as "provocative and experimental" (Killam, 2023, p. 35) in a similar manner to Killam's recent publication "agitating internalized neoliberalism in Higher Education" (2023, p. 35), I position my approach and my reflections here as being meaningfully intertwined with the political landscape of academia and contemporary debates over legitimate knowledges (Denzin & Giardina, 2016), matters which I expect will continue to recur as a thread within the methodological development of this study.

Reflexive researching, negotiating my methodological journey

I have very much followed Huber's recent example who, reflecting on their own usage of autoethnographic vignettes, argue that "by reflexively engaging with our research process, we may intervene in organisational discourses and practices that shape our experiences, knowledge and identities" (2022, p. 2). Indeed, Huber goes on to argue - as I have - that taking a centrally reflexive approach to the writing, reading and analysis of my vignettes is a deeply challenging yet transformative process when focused around "intensions emotions that constitute moments for introspection" (2022, p. 13, citing Foucault, 1997). As I attempt to explore how I have come to learn and experience aspects of neoliberalism over my life-course, it seems somewhat inevitable that such experiences have shaped quite fundamental aspects of my identity as an academic and my beliefs about the possibilities and nature of my research. Mudge (2008) explains that this is of particular concern given the specific historical-geographical situatedness of my study, as described in my previous chapters as a highly neoliberalised national context and higher education sector surrounding my work and studies (Cannella & Koro-Ljungberg, 2017; Giroux, 2020; Killam, 2023; A. Taylor, 2017), and therefore "necessitating a deeply reflexive mode of analysis: Western scholars would have to turn their analytical gaze on themselves, assessing their own and their peers' political roles." (Mudge, 2008, p. 730). I will therefore briefly return to some of the literature I introduced in my literature review (Chapter 2) to consider intersections and tensions between neoliberalism and my methodological reflexivity in this study.

Attempting to precisely conceptualise and articulate my position on neoliberalism and my experiences of education, when they may constitute the very foundations of my personal ontological and epistemological perspectives – the basis of the common sense which shapes my view of the world and guides my decisions in life and research (Beeby, 2011; McAnulla, 2006; Pitard, 2017) – has been a substantial existential and philosophical challenge, as Curtis explains:

When the world becomes problematic it is not something I can simply respond to as a detached spectator. The problematised world is invariably a problematised 'self'. This is why a purely epistemological view of common sense needs to be countered. Although I might project possibilities for myself that are based on conscious decisions, the world itself is not something I am free to either take up or refuse. 'I' am inextricably bound to 'my' world, wrapped up in it in a way that radically undermines the idea that I assume it only after a period of deep reflection, or am somehow duped into believing this is the way things are. (Curtis, 2013, p. 88)

It comes as little surprise that my reading of the "common sense" that Curtis is referring to is at least partially aligned with that of the marketised entrepreneurial self of the neoliberal ideal (Edmond, 2017; Leyton, 2022; Peters, 2001), and the strength of Curtis' wording towards the end of the quote above captures the extent to which I feel influenced in the way I have learned to make sense of my world along such lines. Moving into the specific context of this research study, I am therefore minded of even the constrained, multifaceted definitions I have explored for forms and technologies of neoliberalism so far (Chapter 2) and how extensively some of these issues may be intertwined with my sense-making at a fundamental level: attempting to examine neoliberalism throughout my life of learning and teaching may be, perhaps quite obviously, intractably complicated by how every one of those experiences took place within contexts that I have come to identify as relevant to aspects of variegated neoliberalism (Brenner et al., 2010; Hardyn, 2014). I must therefore remain aware of how my sense-making and even the way I will recount my experiences may be influenced by elements of neoliberal logic, as d'Agnese neatly concludes: "The tautological nature of neoliberalism makes criticizing and challenging its assumptions extremely difficult." (d'Agnese, 2019, p. 698). As Curtis goes on to suggest, I therefore contemplate how my experiences might have nurtured certain forms of rationality which may be extremely difficult to objectively detach myself from (Gill, 2014; Pitard, 2019; Zahavi, 2012) as a critical researcher:

This imbrication of financial capital into the very tissue of everyday practices has affected who we think we are in the sense that, especially for those born since 1980 [such as myself], it has become part of our very being. This means that thinking about alternatives is more

of an ontological problem than an epistemological one. Knowing that the system is deeply flawed doesn't necessarily help me change things, because who I am remains intimately tied to the world in which I live. (Curtis, 2013, p. 5, my emphasis)

This particular reading was profoundly striking to me, immediately making me reflect on so many aspects of the complex problem I found myself attempting to untangle in this thesis: deeply seated feelings of concern for the organisational systems of society and education that seemed to have become so definitive not only of my navigation of key milestones in my life, but of the very ways that I spoke and thought of myself and my experiences, seeming to resist - though perhaps not always precluding - attempts to think or act otherwise. As with Kimpson and others (Kimpson, 2005b; Pillow, 2003; Settelmair, 2003) it was my commitment to personal critical reflection which seemed to repeatedly lead me to a sense of dissatisfaction with the original plans for my research for failing to engage authentically with issues of power and the socio-political background to my interests. The aforementioned texts, and other similarly strongly worded writings about the difficulties of authentic critical reflection on one's positioning within dominant discourses and contexts (e.g. Ball & Olmedo, 2013; Dutta & Basu, 2018; Giroux, 2011; Kiely, 2018; Nordbäck et al., 2022; Zambrana, 2013) are what led me to consider these issues not only of substantive interest for my inquiry but further motivation for establishing a commitment to a reflexive, open-minded and self-aware approach in my research.

Ethical considerations and responses

Having established the intentions and overarching approach for my work, I move towards the conclusion of this chapter by exploring ethical considerations which have influenced the way I have carried out and presented my research. Adams et al. position ethical considerations at the centre of autoethnographic research, describing the prevention of harm to self, other individuals and groups as core "commitments" of the authoethnographer (2015, p. 25). Drawing on the advice of the British Educational Research Association's "Ethical Guidelines for Educational Research" (2018, p. 1), I acknowledge the extremely one-sided power relationship that I hold with those who may be implicated in my writings. Due to the sensitive and problematic nature of some of my vignettes, it is not appropriate (nor practically possible) to seek informed consent from those I recall being involved or otherwise influential on the experiences I have been so compelled to explore. It is with this prominent dilemma at the forefront of my thinking that I will now explore my ethical responsibilities and responses in this study.

Risks of harm, care of the self and autoethnographic researcher vulnerability

One of the primary concerns in the writing of the autobiographical vignettes is the inevitable reference to contexts and individuals involved with the occurrences I write about. A further concern is that of researcher wellbeing, and the personal, challenging nature of the writings and reflective process being undertaken. I therefore seek ways of adapting the content of my final thesis to avoid undermining my existing, ongoing and future professional relationships, speaking as they do of the types of settings and activities that I continue to be involved with.

This is not to simplify matters into claiming that I can write in completely neutral terms which would not sound in any way disparaging to any informants. On the contrary, as the occurrences being documented are what I have deemed to be critical incidents in my educational experience, the examples I use to illustrate my recollections can sometimes be framed in quite negative or judgmental terms. This is a key element of my reflective process and of my narrative analyses. I therefore assume that individuals or organisations that I have decided to write about would be unlikely to offer their consent to be represented in the way that is necessary for an honest storying of my experiences. The first version of my recollections – for private use only and not included in this thesis – may be read as negative, judgemental and perhaps seen as derogatory, insulting or otherwise cause personal-emotional or reputational harm. Even at the initial stage of writing vignettes, recognising my responsibility to protect the privacy and identity of anyone implicated, I have followed the advice of Adams et al. to "mask their identities... chang[ing] ... identifying characteristics" (T. E. Adams et al., 2015, p. 60).

While establishing the key risks of my research, I also return to Adams, Holman Jones and Ellis, who highlight the need to consider "caring for the self" (2015, p. 62) as an important element of productive and purposeful, yet ethically responsible, autoethnography. The ethical issues raised around the potential for emotional and reputational harm to others therefore apply also to myself, as someone who aspires to continue working in a context that I have described at times in quite negative, troubling or perhaps derogatory terms. Furthermore, I am engaging with research that is inherently emotionally demanding for how I am interrogating and querying the

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foundations of my beliefs and actions as an individual (Eisenbach, 2016; Sikes, 2013; Foster, 2017a). Crucially, this is again a site of complexity that I do not wish to overlysimplify. I turn again to Adams et al. who advise – as Ellis recounts from their own work – "mov[ing] back and forth between considering the constraints of telling and the possibility of healing... what I needed to tell for myself, while honouring my implicit personal trust" (T. E. Adams et al., 2015, p. 63) with others who are present in the my writings. Ethical risks and emancipatory or cathartic affordances are therefore immanent in writings about myself and my own direction as a learner and educator, and I reflect on and note where my mitigation strategies might also be supportive of self-care in the research process. It is within this line of thought that I will briefly summarise the extent or process of fictionalisation and editing for my audience with each vignette to highlight the consistent recourse to such principles throughout the writing of this thesis.

Fictionalisation

One central consideration in the write up of this thesis has been the precise content of the final version of my vignettes with due consideration for ethics, recounting, as I intend them to, occurrences in my life which have been somehow emotionally challenging or otherwise personally poignant in nature. In the first phase of writing and analysis, my vignettes may have included some reference to specific characters or settings, anonymised using pseudonyms and efforts to limit identifiable traits (e.g., locales, gender, types of educational setting) (Bochner, 2016; British Educational Research Association, 2018; Dauphinee, 2010). These initial versions of vignettes were only seen by myself and, occasionally, supervising staff to form the basis of my analyses as described earlier. These initial vignettes may contain elements which could be deemed unsuitable for open publication, however. For example, characteristics of individuals or settings depicted may allow them to become recognisable but were otherwise necessary for retaining the authenticity and purpose of the initial writings for informing my reflective analysis. This is of particular importance given the topic of inquiry and my frequent consideration of power relationships and oppressive constraints on voice and agency, positioning myself as researcher as a potentially "subaltern autoethnographer" (S. A. Hughes & Pennington, 2017, p. 25).

Altering my writings immediately to avoid speaking negatively of settings or characters would undermine the possibility of reflecting on positions of marginalisation,

oppression or otherwise difficult-to-explore experiences of central relevance to my research. However, building on my initial anonymisation process, I find Ellis' depiction of "relational ethics" (Ellis, 2009; Ellis et al., 2011; Ellis & Bochner, 2006) to be useful for capturing the extent of the responsibilities I have to those who may be implicated or identifiable in my writings. Even though I do not class them as active participants in an empirical sense, it is impossible to disentangle my life story from the settings and individuals who form the context or other characters present in my writings. A process of robust anonymisation and fictionalisation has therefore been used to prevent any individuals or settings from becoming identifiable, reviewing and revising the final form of vignettes included in this thesis in order to create "representations that use composite characters, fictionalized narratives... and other distancing or abstracting writing techniques to obscure the identities and respect the privacy of participants" (T. E. Adams et al., 2015, p. 61). The introspective focus of my work is also made clear throughout the thesis, framing the creation and presentation of vignettes to reassure the reader that the purpose of my analysis is not to offend or to judge others but to explore my own lived experiences and affective reflections.

The degree to which the eventual form of vignettes presented in this thesis are a balance between my original autobiographical writings and fictionalised accounts has been informed by Lahman's (2018) exploration of contemporary labelling of vulnerability and concerns of a chilling effect on research with marginalised cultural groups. Their work intersects intriguingly with my perception of methodological constraints where I position myself as a subaltern autoethnographer within power relationships of employment and academia. Although the othering literature rightly foregrounds the rights of others implicated in research (Charteris et al., 2017; Lahman, 2018; Mills et al., 2010; Petersen, 2008) – as I have attempted to protect through my processes of anonymisation and fictionalisation – Lahman also captures how I would describe my position of autoethnographic author as "capable and competent, yet vulnerable" (Lahman, 2018, p. 19).

Drawing together these thoughts on the vulnerability of various parties foregrounded and backgrounded in my work, I continue place "relational ethics" as a key matter of consideration "throughout the research and writing process" (Ellis et al., 2011, p. 281). Despite taking a carefully considered approach to the creation and presentation of my life writings, I remain mindful of Ellis and Bochner's advice that "there's always the chance that our stories will cause discomfort. We can never completely get rid of that feeling, nor would we want to ... But we should do everything in our power to minimize hurt" (Bochner, 2016, p. 151). Further iterative revisions to vignettes are therefore made post-analysis to mitigate the possibility that individuals or settings may become identifiable later. Such alterations are declared and explained as part of the thesis itself in general terms – so as not to undermine the value of the writings after the process of alteration or re-writing – and predominantly involve the replacement of potentially identifiable settings or characters with composite cases or alternative plot devices with the aim of re-presenting the core elements of tone and content of my initial storying to the reader (Bochner, 2016), recognising that any of my vignettes – revised or otherwise – are narrative constructions rather than an indisputable record of actual occurrences (Eisenbach, 2016; Ellis, 2009; Ellis et al., 2011; S. A. Hughes & Pennington, 2017).

While my need to fictionalise elements of my writings therefore arises primarily out of ethical concerns for those who may be implicated in my stories, I also realise that there is a danger of my audience dismissing my vignettes as being fabricated in their entirety or otherwise lacking in relevance or validity to the aims and claims of my research (Hannigan, 2018). I acknowledge that to a degree I am reliant on author-reader trust that what I am conveying in my writings is as authentic a representation of the original source materials that gave rise to my analyses as the aforementioned ethical constraints will allow, albeit intentionally framed in limited terms as my personal narrative truth (Dauphinee, 2010). I would counter any uncertainty as to the validity of my narrative by again taking a pragmatic, purposeful view of the writing process. As Davis and Warren-Findlow, advocating for the use of fictionalised narratives in trauma research argue:

that narrative "truth" should be concerned with how the story is used and understood. We advocate that [fictionalisation] methods such as this give voice to stories that are difficult to tell and understand, and open spaces to reflect alternative ways of knowing. (C. S. Davis & Warren-Findlow, 2011, p. 563)

Mindful of my earlier thoughts on textual verisimilitude, I would therefore hope that, epistemologically, fictionalisation should be less problematic than it may at first seem. While outright fabrication of data would undermine the meaning of the research altogether, I see any narrative accounts of lived experiences – even those that are created

through more traditional social research methods such as interviews – as constructed stories: "creative nonfiction" (Lewis-Beck, Bryman, & Liao, 2004, p. 47).

The choice to include, exclude and revise certain elements of content in my writings are, in Roberts' terms, an example of "Bricolage as 'Ethics in Practice'" (2018, p. 6). The first-writing of my vignettes was initiated on the basis of my personal, subjective view that each one was critically influential on the course of my life, and memorable for their provocation of emotions on recall and retelling. Omission of any of the resulting chapters entirely – silencing key moments of my experiential and autoethnographic learning – in order to unrealistically claim to eliminate any risk of harm to self and others whatsoever would not do justice to the purpose and nature of my research.

To be clear, it is absolutely not my intention to position my autoethnography as deliberately aiming to damage the dignity, wellbeing or reputation of others that have informed my experiences but nonetheless recognise the need for my work to be a "disruptive practice" (Denzin, 2014, p. 11) in the sense of exploring moments that have been constitutive of my understandings and affective relationship to neoliberalism over my life. In the case of educational institutions in particular, this is ironically where my consideration of research ethics again meets neoliberal phenomena. In Hardin's extended critique of researchers' varied and sometimes simplistic conceptualisation and application of the term "Neoliberalism", they propose that the protected centrality of **corporate** rights and welfare by governing bodies over those of individual citizens – a phenomenon Hardin refers to as "corporism" - is a key signifier of "the Neo in Neoliberalism" (Hardyn, 2014, p. 199). My position of relative vulnerability as an employee within a large Higher Education corporation, a space that I may need to speak of in less-than-favourable terms, is therefore an example of where I feel it is difficult to exercise a simplistic and entirely harmless approach to framing my thesis ethically. In the write-up of each of my vignettes, therefore, I have deliberated over the necessary compromise between anonymisation and fictionalisation techniques and the need for my research to maintain its legitimacy and power of critical commentary.

Ethics reviews and approvals

In-line with current policy at my institution (The University of Somewhere, n.d.) I prepared and submitted an application for ethical approval, confirming that I would use the approaches described so far to ensure that I minimised the potential for harm from

the production and publication of my thesis. A complete version of my ethics application and approval letter can be found in appendices 1, 2 and 5.

I also note that the original design for my research study did lead to the conduct of fieldwork activities with human participants and a short publication (Lahmar, 2014): a series of focus groups with student teachers. While this work is no longer central to the design of my study and the resulting raw data have not been retained, I have reflected on just a few comments from these conversations in a single chapter towards the end of the thesis, not only as a counterpoint to my own voice but as an acknowledgement to the kind participants who gave their time to contribute to my research in its earlier form. While the complete process of methodological development of this previous version of my doctoral studies lies outside the scope of this thesis, I also attach the project information and ethical approval letter for the relevant fieldwork to confirm due consideration and responsibility in my conduct of the activities and use of participants' data (see Appendices 3 and 4).

Conclusion and research questions

To conclude, I would remind the reader that I am not applying the complete models of Kincheloe et al.'s bricolage (2005) nor Ellingson's crystallisation as read in their purest form: I am using neither a singular point-of-entry-text suggested by the former, nor a confluence of multiple representative genres advised by the latter, though I would very much like to explore these possibilities in future research. In a sense, in this study I am embracing the principles of a bricoleur by "borrowing" aspects of methodologies that I feel are most useful and suited to my research (Settelmair, 2003, p. 38), particularly the fragmentary, self- and politically-aware, self-critical, epistemologically liberating framing of both aforementioned approaches. The findings of my research are, crucially, presented not as mere personal opinion or subjective rhetoric but, as the result of a process of extended empirical – if predominantly introspective – inquiry, I appeal to the reader to appreciate the product of my work more as legitimately "situated knowledge" (Haraway, 1988, p. 575). As I draw my methodology to a close, my intention is not to present a simple disclaimer but instead an explicit recognition that "the construction of situated knowledge ... also shapes the interpretations of legitimacy" (Haraway, 1988, p. 159) in a manner that I have come to appreciate as an educational practitioner and researcher, and that I hope to embrace as an important pillar of my thesis.

I conclude this chapter by presenting the four central research questions which guide the subsequent aims and structure of the main body of the thesis to follow. First, two research questions where I apply neoliberalism as a descriptive category to each of the vignettes in Chapters 4 to 13:

- In which ways do vignettes depicting my educational and professional experiences seem to reflect aspects of neoliberal subjectivity, including appearances of "technologies of neoliberalism" (Chapter 2) as being formative, constraining, conflictual or otherwise influential on the course of my life?
- What appears to be the relevance, if any, of my interests in statistical literacy education and critical thinking to the matters of neoliberal subjectivity within my various roles, and of those who I speak of in my narratives?

As indicated earlier in the chapter (Figure 3), this is then followed by a second layer of readings across the main chapters of the thesis to identify threads which transcend the individual "microcosms" of my vignettes (Törrönen, 2002, 2018) and the coda writings which follow. In this second layer of reading, variegated neoliberalism (Brenner et al., 2010; Peck & Theodore, 2007) is applied as an analytical category to explore how the bricolage of writings and the chronology of the experiences I have recounted might serve an explanatory function, helping me understand how neoliberalism has functioned across my life course, while recognising how it may be systematically, institutionally and functionally variegated across the contexts that I have experienced:

- Which common themes or threads of neoliberal subjectification emerge across the bricolage of vignettes and theoretical perspectives?
- Do these threads provide possible explanatory mechanisms for the forms and effects of neoliberal subjectification emerging in my vignettes?

Section 2: Reflections on school and undergraduate study Chapter 4: Self-concept, motivation and schooling

Introduction

Following the process developed in my methodology earlier (Chapter 3), from this section onwards begins the substantive body of my research. Each of the chapters to follow includes at least one autobiographical vignette, followed by an analytical coda which includes an overview of any adjustments made to the vignettes for ethical reasons, my chosen framing of analysis, leading to my reflective commentary on points of learning arising. Sections 2 to 5 of the thesis progress chronologically through major phases in my life in education: school, university, training as a schoolteacher, obtaining my first teaching post, progressing to a role in teacher education, working in a Higher Education Institution (HEI) and pursuing my doctoral studies.

In this chapter, incorporating two vignettes, I begin by storying early educational experiences of pre-university schooling and progression to undergraduate study around the late 1990s and early 2000s. This is a period in England depicted in contemporary literature as being significantly shaped by the legacy of recent governments, with Pilcher & Wagg (1996) coining the term "Thatcher's Children" for young people such as myself to describe how profoundly neoliberal political shifts of the 1980s had influenced the childhood of generations such as my own (Curtis, 2013; Peck, 2013), including the introduction of the national curriculum and a steady increase in the frequency and extent of assessment measures throughout compulsory schooling in England (Leach, 2015). I do not recall having been aware of the term "neoliberalism" at the times depicted, and only began to explore scholarship around the concept in my time working in Higher Education (Section 5, Chapter 10 onwards) though my awareness of neoliberalism as a hegemonic rationality may have emerged more gradually (e.g. Section 4). At this earlier stage, it is my deliberation and negotiation of success and failure in education which are centrally positioned in the vignettes to follow, again noted by authors at the time as being profoundly influential on the construction of learners' identities (Reay & Wiliam, 1999).

Vignette Ia: Was I a "smart" pupil at school? What does/did this mean?

"I always do my best at what I am given so I can achieve the highest grade possible" ("Personal Statement" as part of my National Record of Achievement, 4th April, 2001). My abiding memories of being a pupil at secondary school are that I was academically successful, particularly in the sciences and Geography which became the subjects where I achieved the highest grades at the end of my time at school. Then and to this day, my mother would often say that I "didn't even have to try" which I feel was probably true for the subjects that I most enjoyed. Without any sense of struggle or hard-work, I obtained respectable grades in all of the General Certificate of Secondary Education (GCSE¹) subjects that I studied for the last two years of my time at secondary school.

Throughout school, I found creative and literary pursuits to be the most time-consuming and challenging, so I deliberately selected the most technical, algorithmic or scientific options that were available to me at the time. I recall a sense of enjoyment in "succeeding" in the highly-structured, piecemeal assessments of Mathematics, Science and even Geography; there was a right answer to be calculated or recalled as a matter-of-fact, limited scope for lengthy writings or other forms of potentially ambiguous expression.

Ironically for a future teacher in the subject, I did not find mathematics quite as straightforward as the sciences and Geography though, attaining "only" an A-grade in the GCSE, the secondhighest grade awardable. It was not until many years later, reviewing typical pass-grade requirements for such courses, that I learnt that this could have meant a score of approximately 64% (Assessment and Qualifications Alliance, 2010); nearly a third of my answers to the exampapers were probably wrong!

Nevertheless, performance across all of my GCSE exams carried me on to post-16 education at a local sixth-form². I do not recall feeling any doubt or deliberation at this transition in my education, merely that I was following a logical, inevitable progression. I feel somewhat embarrassed, in retrospect, that I arrogantly began a programme of seven General Certificate in Education, Advanced-Level courses (GCE A-levels³) when the norm at the time, and in my later experience as a teacher, was for students to attempt three or four at most. I decided that three A-levels in Mathematics, plus Physics, Chemistry, Geography, along with a compulsory A-level in General Studies, were attainable and nobody questioned this decision at the time.

My A-level studies were therefore my first notable experience of academic failure and would force me to find new strategies to the ones that had led to my previous successes. Back at secondary

¹ A common school-leaver qualification in England obtained at age 16 (Oxford English Dictionary, 2024a),

² An educational institution for pre-university learners in England aged 16 to 19 (Oxford English Dictionary, 2024b).

³ A common pre-university qualification, typically studied by learners in England aged 16 to 19 (Oxford English Dictionary, 2023)

school, when I had been required to select some non-core subjects to study from a small pool of supplementary GCSEs, I had tried to avoid classes where I might be challenged by my lack of artistic skill, dexterity or general literary interests. I therefore chose a technology course which involved computing and measurement of materials, and a business course with balance-sheets, taxes and other mathematical calculations. I had selected programmes of study that I felt I could achieve the highest grades on without really being invested in the specific subject-matter and it worked. Having progressed to A-level study, I seemed to be in a rather different situation: no longer could I "coast" in lessons, applying common sense or some numeracy skills from elsewhere, this was serious.

Within a few months, I had asked to withdraw from A-level Geography. I had previously coasted to a top grade at GCSE without feeling any great investment of time or effort, so I quickly became disengaged with the A-level as soon as it became apparent that I had to put some real work into my studies. I had no aspirations to become a Geographer so was not particularly disappointed in this change. One way that I justified this decision, at the time, was that I began to think about my next move, into higher education. Again, studying at university-level was something that I saw as a logical and necessary progression rather than a choice, and again I would likely be studying something mathematical or scientific. Geography was therefore unimportant and could be discarded.

Later in the year, more serious threats to my identity as a "high flyer" arrived. First, due to achieving "only" an A-grade in my GCSE mathematics, my teachers finally questioned if I was likely to be successful in such a demanding programme of mathematics A-levels after all. I recall feeling extremely upset and insulted by the thought, and resolved myself to prove my teachers wrong, motivating me to spend far more time genuinely studying than I could recall having ever done before.

At the end of my first year at sixth-form, I sat some interim examinations and achieved well in Mathematics (by now, a full A-level due to the fast-pace of the "triple" course) and Physics, but Chemistry was a disaster: an E-grade, the lowest possible without failing outright. Attempting to rationalise the situation, I felt that this was simply an unexpected set-back due to my focus on other subjects and could be remedied in the final exams – a year later – without significant difficulty.

Following these results, I again thought strategically with the goal of a mathematics degree inmind. I was offered a place at a prestigious university contingent on only three good grades at Alevel, so Chemistry quickly became a low priority. By focusing on a second mathematics A-level (in

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addition to the one I had already obtained in my first year), transferring the same mathematical skills to the Physics A-level, my actual work-load became minimal. I dropped the third mathematics A-level as it was no longer needed and attended only a single General Studies lecture (a somewhat rebellious act that would have been unthinkable just a year prior). Shortly into my second year at sixth-form, I was attending only one or two lessons a day from what had previously been many hours of arduous study. I could once again be "successful" without trying too hard. I continued in this vein until the end of my time there, achieving the required standard for entry to my university of choice.

Confusingly on reflection, I did not decide to withdraw from the Chemistry course - a choice that I have pondered several times over the years – and went on to obtain a full A-level qualification with a grade "E" – the lowest awardable. This has remained a thorny issue to this day; I did not need the qualification to proceed to the next stage of my education, have not used any of the subject-matter in my professional life since, so the only purpose it has served is to remind me that I'm not a "straight-A", high-flying student after all.

Post-writing alterations

Characterisations and settings have been revised, removed and fictionalised in places, with a few further minor revisions for clarity.

Selecting themes for exploration

In this "first reading" of my vignette, undertaken at least a year after it was originally written, I begin to seek prominent themes to take forward to further analysis and the exploration of one or two theoretical perspectives. I will be reflecting on the experiences that I have chosen to foreground in the narrativisation of my memories, contemplating the potential verisimilitude of my story, and seeking signs of dialogue or interaction between the version of myself as embodied in the vignettes and my understandings of the sociocultural surroundings of the time. Crucially, I try to remain conscious of "the style of the narrator's voice" and am mindful of the "difficulties with the act of narrating" (Horsdal, 2017, p. 266) my past experiences which may provide insights into my visible and subtextual aspects self-representation (Kimpson, 2005b; Pillow, 2003). The attempt to present a coherent logic for my past decision-making therefore leads to my first strand of analysis around the relationship between my notions of "success" in terms of goals and motivations. Second, this leads me to contemplate the narrative performance itself and how I have constructed an image within what I would

more recently recognise as reminiscent of discourses of neoliberalism, specifically some facets of my self-characterisation which align with an idealised neoliberal subject.

The narrative performance I: constructing an image within the neoliberal ideal

In this vignette, I only rarely depict any clear external origin or influences for many of the points I decided to discuss; aside from a few reinforcing words of my mother's and occasionally negative feedback from mathematics teachers, the majority of the writing seems to depict a sense – albeit possibly an illusion in Marxist terms (Powers, 2007) – of personal agency, control and responsibility: "I deliberately selected... I decided that... I therefore chose... I justified this decision...". Even in this last example, I seem to be justifying my actions to myself rather than any clearly depicted actor. Türken neatly captures the responsible self that I notice being imagined in this writing:

Largely responsible for her own successes and failures, the individual's well-being and development becomes the sole responsibility of the neoliberal entrepreneurial subject. Discursively detached from the structural constraints of society and isolated from contextual and historical conditions, the neoliberal subject then has no one else to blame but herself if she fails to achieve goals. (Türken et al., 2016, p. 34)

Indeed, despite the vignette being written as part of this PhD study – and therefore at a time when I have been beginning to contemplate issues of neoliberalism and schooling – references to any structural constraints or historical conditions are notably absent from this story. As my first usage of the term "neoliberalism" as part of an analytical coda, I am minded that it therefore functions as a descriptive term at this stage (Sundler et al., 2019), with the aim of considering a more analytical view in later chapters and when reading across the bricolage.

Returning to my reading of the narrative presented in this vignette, responsibilities for "successes and failures" are situated within my own strategic negotiation of the situation. Furthermore, despite the ostensibly identity-focused title of the writing, I instead choose to structure the piece around the decisions I made as a young person as noted above, the actions that I decided upon. Once again, this focus on such decision-making aligns with what McGuigan describes as an expression of "the neoliberal self" (2014, p. 233) with such "agonistic choices" (2014, p. 233) being the primary locus of my responsibility:

individuals are compelled now to make agonistic choices on which way to go at nodal points along their life-course trajectory – there may be no guidance – and also they are

required to take sole responsibility for the consequences of choices made or, indeed, not made. (McGuigan, 2014, p. 233)

My memories of any "guidance" at such junctures are hazy at best, and of particular note here is that I have not depicted any such direction at these important points in my educational career. Instead, my internalised decision-making process is portrayed as a simple common sense. Finally, this leads me to the singular consistent influence on my course of action: my performance on standardised tests. A brief interjection from a later self alludes to being ill-at-ease with my blind acceptance of the quantification of my academic endeavours, recognising that my GCSE "A-grade" in mathematics was actually far less prestigious or exceptional than I required to maintain my self-image. However, this minor aside does not detract from what is otherwise another trait of neoliberalism embedded even in my inquiring narrative: "A positivist outlook and a narrowly quantitative focus" (Lees, 2007, p. 57), foregrounding my deference to quantified measures of my academic endeavours as foundational to my memories of schooling.

The final paragraphs then seem to simply play out what has already been established: interpretations and decision-making based centrally around an imagined identity as a high-achiever repeatedly being challenged by counteractive forces such as having to "work hard" and, crucially, failure on standardised examinations. I will now turn my attention to the elements of the vignette which more explicitly deal with these issues of identity and achievement goals.

Academic self-concept, achievement goals and decision-making

I continue my discussion with the concern that I have framed my experiences within a very narrow, reductive notion of success: achieving highly on standardised assessments of academic disciplines. This is a sentiment which is poignantly embodied in my words from the time: "I always do my best... so I can achieve the **highest grade** possible" but I also feel this to be an extremely limited account of my time at school. Ending the vignette with the "thorny issue" of a Chemistry E-grade is similarly a final, striking reminder of the centrality of these performances to my sense of self. On reflection, I think that I experienced two quite enjoyable years of Chemistry study, I had very pleasant teachers and – if pushed – would probably consider the subject-matter to have been genuinely interesting. However, even now, thinking back on such positive aspects seems strangely uncomfortable and unfamiliar, not the sort of story which

immediately comes to my mind. Green, Sedikidnes and Gregg (2008) suggest that memories which threatens one's self-concept are not as readily recalled as those which reinforce, and indeed it seems to be the case that my E-grade in Chemistry has become a descriptor for something which does not sit well with the self I wished to present, something that I do not seem to have been conscious of during my construction of the vignette.

It is this self-concept that I am interested in exploring slightly further here, but this is problematic as, despite the title of the vignette notionally pointing towards a questioning of whether or not I was "smart", as discussed in the previous section I have instead tended to focus on depictions of my motivations and actions as a learner: what I did rather than who I was. Bandura and Zimmerman refer to these alternative possible judgments of the self as the distinction between a broad self-concept and more focused, context-dependent theories of self-efficacy:

Self efficacy is a context-related judgment of personal ability to organize and execute a course of action to attain designated levels of performance; whereas self-concept is a more general self-assessment ... [which does] not focus on accomplishing a particular task but instead incorporate all forms of self-knowledge and self-evaluative feelings. (Bandura & Zimmerman, 1995, p. 218, citing English & English, 1958)

In my writing then, what is presented as an all-encompassing self-concept – being broadly "academically successful" – seems to function as a much narrower self-efficacy situated around performance on my pre-university tests of mathematics and science. My further exploration of this theme led me to literature of a predominantly cognitive-psychological nature (following those cited above) which mostly seek to provide models for how "the mind develops and is educated" (Farnan, 2012, p. 79). While these sources do provide some prompts for further reflection, I am reminded that the use of these approaches as an explanatory theory for my own cognition is quite limited as I am not taking my narrative to be an unambiguous representation of my thought-processes at the time. Instead, as Marsh & Hau highlight, within my narrativisation the "extreme salience of achievement as a reference point within a school setting, particularly when the outcome measure is academic self-concept" (2004, p. 60). Together then, these varied readings serve to provide me with at least some sense of direction in attempting to clarify the reasoning, or indeed contradictions, that may lie beneath the narrative and my recollection of events.

Rather than speculating about matters of my past mindset as alluded to above, I can instead turn my attention to how success and self-efficacy function as narrative devices, and how they may be oriented towards aspirational outcomes depicted within my writings. I therefore turn to Meier et al. (2013) who differentiate between three types of achievement goal for learners in educational settings: "Mastery goals (aim to learn, understand, and improve knowledge and skills), performance approach goals (aim to demonstrate one's competences relative to others), and performance avoidance goals (aim to avoid being perceived as incompetent by others)" (Meier et al., 2013, p. 16). My aforementioned thoughts on a distorted and dismissive view of my time as a studentchemist eschews any possible notion that my goals were mastery-orientated then. Instead, I have indeed defined my experiences by performance but now with Meier et al's direction towards the further distinction between approach and avoidance. Two goals are depicted in my writings, first that I "should" progress to a degree in mathematics or the sciences – eventually mathematics – and secondly that expending significant effort to do so would actually be contradictory to my self-declared status as a "high-flyer". Disappointingly, the decisions that followed clearly situate my goals within the performance avoidance category, framing my actions as going to great lengths in the avoidance of failure to achieve these goals.

The Cambridge Dictionaries define the colloquial self-appraisal of "high-flyer" mentioned in my vignette as "someone who has a lot of ability and a strong wish to be successful and is therefore expected to achieve a lot" ('High-Flyer', n.d.). It is not a subtle metaphor, implying an ascendency of sorts and moving towards being situated above others. Even if I proclaim to feel ashamed of such arrogance in my later writings, this is still the way that I have chosen to present my memories of my time at school, foregrounding such competitive, hierarchical positioning. I also explain that I am more confident engaging in work of a positivistic certainty, naively attributed to disciplines such as mathematics and the sciences (Skovsmose, 1994) yet there is little to this vignette to disentangle these ideas from an "instrumental" view of my studies only as the means with which to pass the next exam (Muddiman, 2018), and it is my growing reliance on an easy path to success which dominates the discussion. Again, the literature on achievement goals seems to resonate with my reflections: the "need for effort and persistence acts as an indicator of lack of ability – one should not have to work hard if one

is smart" (Plucker & Callahan, 2008, p. 429), a theme which returns in the next stage of my story.

Before moving to a summarising reflection on sociocultural implications of my first analysis, I will present and review a second vignette. These two stories are closely related in a chronological sense, referring to my time as a learner from my teens into my early twenties, but they were also both constructed as reflections on my academic "successes" and "failures".

Vignette Ib: University – "Failure" of my strategy

I cannot accurately recall the *order* with which the events of my first semester at university unfolded, but I recognise the ripples of a personal turmoil that punctuated my prior experiences of schooling and resonate to this very day. Retelling, reconstructing this story here feels painfully, embarrassingly petty – particularly in relation to the poignant and evocative autoethnographic work of others that I have come across in preparation for my thesis (e.g. Berger & Quinney, 2005; Granger, 2011) – yet I feel that these occurrences have undoubtedly shaped the course of my professional life, my identity and, I feel, this very study. In this vignette, I continue the story of my academic *failures* through my undergraduate studies.

I quickly settled into the routines of university life. My time at the preceding sixth-form had become a quite lazy, poorly-attended affair so I felt quite at home with an excess of "free" time around lectures. Conveniently, my brace of Mathematics A-levels meant that I also had a slight head-start in relation to some of my peers; the first few months consisted of a broad diet of pure mathematics whereby all the students on the degree, including those with only a singular mathematics A-level, could then progress from a comparable base of knowledge.

By coincidence then, my narrowed set of A-levels had afforded a slight advantage that led me to feel comfortable. In later years, I have flippantly and defensively described being "rubbish at everything *except* maths" as the only reason that I pursued the degree in the first place, but at the time I quietly savoured the cooing of family and friends about how "smart" I must be to be studying in such an esteemed and academic field, and at a respected university too. "Studying maths at university" *sounded* good and with years of undergraduate study ahead of me, prestige was all that seemed to matter. Coasting through the first few weeks further fuelled this youthful arrogance: "I belong here", I thought.

My blind confidence was short-lived though. One branch of mathematics that had been a casualty of my narrowed A-level profile back at sixth-form was Newtonian mechanics – the study of forces

and motion. As I grappled with the subject-matter afresh, peers with prior knowledge in this area seemed to stride confidently through these modules in a manner that I only enjoyed elsewhere on the degree. My desire to be seen as a "high-flyer" who does not need to try very hard, with the words of my mother ringing in my ears, was once again in question.

As with my pre-university studies, this again had a jarring, unsettling effect and I avoided any further courses related to mechanics, focusing on my areas of comfort: statistics and pure mathematics. A worrying irony of this situation was that the actual performance in the end-of-semester exams was quite the opposite to what I might have expected, demonstrating what I feel to be a rather shameful trait. I actually fared very well in the mechanics exams: "Applied Mathematics I" sits near the top of my transcript for the year, with 71 points. I opted to veer well-clear of this entire branch of study for the rest of my degree even though "Algebra" – the effortless, *comfortable* pure mathematics module – yielded my lowest score of just 46. My story, to myself and others over the years, has been that my degree turned into a game of selecting the "right" modules, the ones that I felt I could be most *successful* in, even though at this pivotal moment I seemed to do the opposite. I will never know for certain if, had I not avoided such challenging areas of study, I might have been able to achieve more highly in my mathematics degree overall, though I remain doubtful to this day. More importantly for my writing here is how it became apparent that the *ease* with which I could achieve a minimal standard of success had become a significant factor in my decision-making, if not paramount.

Each semester, I would try to guess which six courses would be the *easiest* out of those available. The specifics of my portfolio of achievements mattered little as I felt sure that a degree in "Mathematics" was a broadly desirable and respected qualification. In any case, I had no specific career aspirations at the time and made these decisions about my education simply based on a desire to feel *comfortable* that I could be broadly successful. This drove me further into a mix of statistical analysis and abstract, pure mathematics, a strategy which led to inspirational, enjoyable experiences that I have built on to this day, but also one of the most devastating "failures" of all – my masters in Mathematics.

At the start of my fourth and final year of the undergraduate "integrated masters" course, the balancing-act finally collapsed. Pure mathematics too had become an arduous and uninspiring pursuit, my interest and efforts faded in tandem and I began to fail examinations in advanced geometry, algebraic topology and the like. As a degree in *mathematics*, I had run out of escape options; there was no way of avoiding evermore abstract "pure" content and I had exhausted all available credit-bearing modules in statistics. I abandoned the masters, leaving with what I

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considered to be a paltry degree classification and seemingly no prospect of pursuing further academic study related to my interests. I was awarded a piece of paper with lacklustre credentials that I would never be able to forget.

Post-writing alterations

Characterisations and settings have been revised, removed and fictionalised in places, with a few further minor revisions for clarity.

The narrative performance II: conflicting discourses of success/failure

My writing has taken on a rather more dramatic tone here but otherwise continues to reinforce the primacy of an arrogant self-image that is repeatedly at odds with the events that unfold. It is as though the behaviours which seemed to mostly meet my aims as a pre-university student – maintaining my perception of a position as an academically successful pupil with minimal struggle or effort in my studies – seem to be simply replayed again within a new and less fruitful context. In my writing, I continue to position myself as the central decision-maker in my path through education, resulting in some disappointing, embarrassing and illogical actions at the time.

Serder & Ideland argue "that low performance [on examinations] is not a given category, but a reality performed into being by students, test instruments, and measurement rationality" (2016, p. 341). This draws my attention to how I am continuing to perform my conceptualisation of failure "into being" through the nature and form of the narrative itself. I did not in fact fail my mathematics degree in a literal sense of not obtaining a qualification – and this is what would be the common understanding within the institutions of education that I familiar with – but I instead did not achieve what I had been setting out so far as my self-imposed expectations. The most notable shift in this part of my story is the fading effectiveness of my strategic efforts, resulting in a depiction of failure that I again hold as quite definitive, punctuating my memories of the time.

Benjamin's work around "What counts as 'success'?" (2003), which happens to have been published contemporarily to the period depicted in my writings, identifies tensions faced by school pupils when attempting to find their place in discourses of achievement, described as "complicated identity work" (p. 108). His depiction of hierarchical "dominant" and "consolation" discourses (Benjamin, 2003, pp. 108–109) provides me with a structure for reflecting on the significance of this vignette in relation to its precursor, along with the strength of the failure depicted here.

I was first drawn to this line of reasoning by my vivid recollection of being "rubbish at everything except maths" and how this this lies in stark contrast to my earlier thoughts on being broadly "academically successful" at school (Vignette 1a). In the English school context depicted by Benjamin and, as noted above, contemporary to my own, the dominant discourse of success aligns with my earliest descriptions and, as Benjamin suggests, is reflective of the predominant organisation of state schools at the time: "The dominant version of success is strongly linked to the standards agenda [of the then Labour government]... a version of the subject 'successful schoolchild' now progresses diligently and unproblematically... in the pursuit of continuously improving examination performance" (Benjamin, 2003, p. 107). Where this becomes prominent in the lives of his participants and within my own narrative is a notion of how individuals might talk themselves into such a discourse or even exclude themselves from it. In my case, a dominant discourse underlying my early vignettes is indeed that of the "successful schoolchild" (above), the "high flyer", the "straight-A" student. Signifiers of these discourses of success continue to be present even though the focus of my writings have shifted – remembering the levels of my narrative as depictions of action as well as the ways that I have recalled and communicated them (Blommaert, 2005) – such as the way that I position "my masters in Mathematics" as a superior academic outcome to my eventual bachelor's qualification. However, a discourse of consolation emerges and is rapidly foregrounded in the second vignette in response to my realisation that achieving success in the dominant discourse was much more difficult than I expected. Here, I negotiate lower standards of achievement which I claim would be acceptable provided that I could do so without struggle. Over the course of the chapter, I talk myself out of the dominant discourse and into consolation instead.

The way these dominant and consolation discourses are hierarchically positioned in Benjamin's work provide me with some useful prompts for reflection. First, "nonnormative progress cannot be recognised within the terms constructed by the dominant discourse" (Benjamin, 2003, p. 100). Indeed, I quickly feel that it was highly unlikely that I would achieve a high level of success in the dominant discourse once I had settled on being "comfortable" instead. Nevertheless, the discourse of the "high flyer" does not disappear entirely, persisting into the second vignette, and I continue to engage with the "two discourses that appear to invalidate each other, and which work together through a constant but unspoken tension" (2003, p. 100). I explain how "prestigious" my university was, how "smart" people thought I must have been for studying mathematics, once again utilising the language of the exceptional, "imagin[ing myself], however problematically, within one or other of the discourses of success" (2003, p. 12). As I document my slippage away from being a high-achiever in a normative sense, I talk myself further and further into the consolation discourse and feelings of "comfort" as Benjamin neatly surmises: "It takes self-esteem as its reference point, aiming to help students to feel good about themselves in spite of the absence of normative success" (2003, p. 116). Unfortunately, Benjamin's dual-discourses theory eventually leads me to a final, disappointing conclusion. Since "the consolation discourse works to provide a **second-best** version of success for those who cannot aspire to normative success" (2003, p. 115, my emphasis) and my narrative so-far firmly establishes me in such a position, I have ultimately doublyfailed, not only by navigating my way out of the dominant success discourse of my childhood but then, as a young adult, I failed to achieve an acceptable outcome even within the "good enough" compromise that I had constructed.

The emotional upset portrayed leads to projecting my feelings inwards, that my selection of easier modules over those I might achieve more highly on was indicative of a "shameful trait", and then outwards with denigrative comments about "lacklustre" bachelor's degrees in general. This has been the subject of some consternation since it was written (and was quite-rightly challenged for its generally condescending judgment of others by my supervisor) yet I do think this is guite telling. I would be ashamed to think that this is a direct reflection of my position on academic qualifications in later life as a teacher and indeed I do not think this aligns with my actions and experiences since, but I do believe that this speaks to my learning that academic qualifications are hard-won capital within a highly-competitive, individualistic rationality, once again identified by Benjamin within the dominant discourse of achievement: "the relationality of success within a competitive system was elided... speaking of success relative to everyone else" (Benjamin, 2003, p. 107). Indeed, even as I revisit my time as an undergraduate student in the next chapter, attempting to construct and claim ownership of a more coherent identity, I remain reliant on narrative othering and a relational logic to try to make sense of my experiences.

Chapter 5: I am not a mathematician, I am a statistician.

Introduction

This chapter incorporates two vignettes and their respective analytical codas, lingering chronologically around my experiences as a learner before and during university. While the notion of educational performance seems to have become well-established as a recurring concern in my writings, I also begin to relate this to other facets of my self-positioning in my exploration of self-identity in the narrative (A. J. Grant & Zeeman, 2012; Teo, 2018; Tienari, 2019), visioning my interests in Statistics as a source of universally authoritative knowledge about the world (Vignette II) and as an academic discipline which is quite distinct to pure mathematics. This latter conceptualisation becomes a necessary element in the rationalisation of my disappointing conclusion to undergraduate study (Vignette III). Together, I see these vignettes as prominent examples of "affective-discursive 'pruning' of neoliberal selves" (Chowdhury, 2022) through my use of narrative othering and self-othering, strategies which will reappear in later chapters and the beginning of a thread that I will revisit in my second layer of analysis (Chapter 13).

Vignette II: "Mathematics" that I could finally enjoy and succeed at.

Before moving on chronologically, I will revisit my time as a student but with a different focus: my burgeoning identity not as a mathematician, but as a statistician.

Statistics seemed to provide an answer to a question that I had never consciously asked as I stumbled from one stage of education to the next. At school, I had never actually been the stereotypical mathematics pupil asking: "When will I ever use this in real life?" Being a successful learner simply meant achieving a good score on an exam, so *applying* my knowledge was not a priority. However, there was something intrinsically appealing about making sense of data, being able to say something meaningful about a research problem. Not only could this be welcome relief from what I felt to be dry, soulless algebra of pure mathematics but being able to make an evidence-based claim about "real" contexts was *empowering* in a way that I do not recall experiencing elsewhere at school or university. I soon found myself being taught to apply statistical skills to disparate disciplines such as medicine, heavy industry, economics and the social sciences, the latter being a field that I would have dismissed as *unscientific* and a lesser-discipline well-outside my skill-set and interests just a few years prior. Ironic, considering the eventual course of my future career...

The second and third years of my undergraduate studies therefore became a tale of two distinct worlds. In one, I sat through what felt like *decades* of depressingly tedious lectures on abstract theorems, so-called "beautiful" mathematics that I had to regurgitate on an exam as part of the degree-awarding process. In this space, I had indeed become the type of student that I would later dread in school, the one that would begin to question "*What is the point of all this?*"

Concurrently, I found statistical analyses – particularly with large datasets and real contexts – to be a breath of fresh air. This was one area of mathematics that took me outside of the dreary world of "x and y" and into places, people and something with *meaning*. I studied industrial processes based on statistical models, how to predict the outcome of biological functions in the natural world, large scale medical trials and eventually drafted a dissertation on "extreme value theory" and its application to so-called "rogue waves" at sea. I recall these courses with fondness, remembering little of the statistical techniques covered but the examples – evaluating pharmaceutical trials, predicting the next stock market crash, monitoring migration, modelling weather patterns, optimising manufacturing processes – these were all within the remit of the "statistician". I learnt that by using statistics it is possible to make authoritative claims about any field of interest, empowering indeed.

Nevertheless, the bottom-line of assessment performance was still paramount in my mind for many years, and I could not escape the consequences of achieving more highly in statistics courses – at sixth-form and at university – when compared to pure mathematics.

I have often thought that if I might have been able to study *more* statistics, for a greater proportion of my time, modules, credits and so on, then I could have been more successful. In my abortive final year of undergraduate-masters study for example, I achieved one of my highest grades ever: a "first-class" score for a presentation on statistical methods. Yet, it was not enough, the pure mathematics failures far-outweighed my successes in statistics. By the disappointing end of my mathematics degree, I had not only established the mindset that "I am good at statistics" but had also cemented a feeling of injustice that these skills were not recognised as they should be: the presentation did not count towards my final degree classification as it was part of the masters' year, not my bachelor's.

This frustration also resonated with my memories of pre-university mathematics. I recall a similar dynamic relationship between my enjoyment, interest and success with statistics when compared to mathematics, yet my opportunities to convert this into credentials were again curtailed by circumstances outside of my control. When asked if they would teach us to undertake an "extra" qualification completely on advanced statistics, I vividly recall an A-level mathematics teacher

exclaiming that "I can do it... but it would be a lot of work" so they opted not to, much to my disappointment.

It is again difficult to precisely pinpoint a moment of epiphany but I recognise the emergence of a self-defensive sentiment that I hold to this day: *I am good at statistics, even if this is not actually mathematics at all. It therefore stands to reason that I might not have succeeded in mathematics but I am not a "failure", I am just good at something else.*

Post-writing alterations

Characterisations and settings have been revised, removed and fictionalised.

Response, emerging themes

This piece depicts a gradual reframing of my thinking around worthwhile academic pursuits by presenting an appealing image of my time studying statistics. I explain how the applied nature of statistics allowed me to think about a wide range of important-sounding contexts, contrasted by feelings of boredom and disengagement with so-called pure, abstract mathematical work. Alongside my interests and engagement with these branches of study, the signs of my earlier strategic bargaining are also evident as I lament my inability to negotiate successful examination results so easily in the later stages of my degree, especially in pure mathematics. Together, these ideas lead to the emergence of a stance that the field of statistics must be somewhat distinct from that of mathematics, a line of reasoning which serves as a starting point for more affective threads in later chapters of my life. At this stage of my story, however, the confluence of these two ideas seems to arise as a feeling of resignation, describing an inevitability that "I could not escape the consequences" of quantitative summative assessments.

"Producing" the power and authority of statistics

Further reflection leads me to consider a less explicit subtext, yet one that I feel has profound implications and is therefore the focus of my first pass at analysis here: What is presented in the vignette as the two distinct lines of reasoning above may instead be understood as alluding to a singular, unifying deference to quantitative measurement as ultimately, unquestionably authoritative.

To begin, I notice the emergence of a naïve belief in statistical knowledge an inherently valid regardless of context or method. I create an image of statistics as a discipline of great import, applicable to a wide range of scenarios and I highlight my perception of its epistemological qualities as being particularly attractive: "it is possible to make authoritative claims about any field of interest, empowering indeed". There is no evidence of a critical or nuanced understanding of the implications of such a stance here though, quite the opposite in fact; I seem to be drawn to a naïve view of statistical evidence in a way Dupré precisely captures in their criticism of reductive views on the complex nature of scientific reason more broadly: an "intoxication with the vision of grand theories, the lure of the simplistic" (Dupré, 2002, p. 292). This is somewhat reminiscent of my earlier preferences towards subject-matter at school where "there was a right answer to be calculated or recalled as a matter of fact, limited scope for lengthy writings or other forms of potentially ambiguous expression" (Chapter 4) and thus being able to hold a position where I could be certain in my claims to objective, unquestionable truths.

This attraction towards statistical knowledge as empowering (Foucault & Gordon, 1980) is further-embodied in my exploration of what I understand to be a "statistician": "someone who studies or is an expert in statistics" ('Statistician', n.d.). Not only does this pertain to the domains of activity depicted in my writings – a community of practice, as I will return to later – but I am also alluding an idea of what it might mean to be "expert". There is little in the autobiographical narrative nor my more recent recollections to warrant a claim to holding a position of notable expertise outside of my own proclamations, and I am therefore reminded that "what comes to constitute knowledge, as well as those who are deemed to be knowledgeable subjects, are inextricably wrapped up with power" (Ainsworth & Hardy, 2012, p. 1695). Thus, my interest in this indicator of status, a self-aggrandising title, leads me to contemplate how I was positioning myself in the narrative in relation to quantitative measures, dependent on taking the stance that statistical knowing – albeit in a very narrowly defined form at this stage of my story – is associated with power and authority.

At first glance, it did not seem that the secondary line of discussion in this vignette – deciding that I do possess some definable skill set that does not completely align with my programme of study – is of immediate relevance to assumptions about knowledge and power, and this led me to a quite literal reading of my story at first. For example, deciding that my degree programme prioritised pure mathematics over statistics allows me to place a cause for my academic failures external to my agentive decision-making

that had otherwise been so prominent in earlier vignettes, instead focusing on organisational arrangements which were "outside of my control". However, what is implied in such a discussion is once again my ultimate deference to the validity of quantitative systems of assessment (Hardy, 2015) and an unwavering belief in how these are represented in the credentials bestowed by completing the undergraduate degree programme:

Degrees direct people to accept an abstraction (the symbolic, cultural embodiment of the degree itself) as a representation of something else (substantive knowledge, skill, or loyalty). Degree holders thus hold power over nondegree holders on the basis of a formal claim to competence or trustworthiness. (D. Brown, 2001, p. 26)

David Brown's words ring quite true of my narrative which continues to rely on the logic of such an abstract representation of "skill" even if I debate the alignment of the programme with my strengths and weaknesses, and Hardy (2015) goes on to note how this process of abstraction is another point which binds the two threads of my thinking; my uncritical conceptualisation of statistical measurement is reflected in the very system of assessments that I found so disappointing, that quantitative educational assessments "also constitute the very phenomena to which they purport to relate, and therefore, are also simultaneously complicit in the very ways in which the phenomena to which they relate are actually described and understood" (Hardy, 2015, p. 22, citing Desrosières, 1998). This draws my attention to the ultimately superficial way that my statistics "skills" were actually put to use within the framework of undergraduate study without any obvious thought of hypocrisy or contradiction in my vignette; despite claims to knowledge and the contexts I found so interesting, I repeatedly foreground the absolute importance of my performance on examinations just as I had done at school (Chapter 4). The vignette therefore is also a reminder of how the reductive nature of educational assessments serve to simultaneously define and reinforce a narrow, simplistic view of statistics as simply a method for reaching authoritative claims, implying a degree of validity which remains unquestioned through my writings.

Hardy provides a succinct summary of where the threads of discussion that I had originally read as conflicting or confused may instead seem to complement one another in positioning reductive quantitative measurement in an omnipotent way:

Such phenomena are both 'real' and 'produced', particularly as they come to be deployed and taken up in various settings. Even as these numbers are not necessarily accurate in relation to that which they seek to represent, the intricate processes leading to their

production and/or official support for their development and deployment mean that they foster a sense of authenticity and believability beyond that which they truly possess. (Hardy, 2015, p. 22)

Hardy's words point to a thread that will continue through later chapters of my writing, and I therefore find this an intriguing way to conclude this first element of my analysis here. Though the misalignment of my programme of study with emerging preferences and strengths is described as a troubling "injustice", the narrative presentation of these events recognises my establishment of a firm view on statistics as an infallible and powerful method of knowledge-production. This is especially evident in my acceptance of educational assessment as a totalising way of describing my educational experiences so far, necessarily contingent on a distinctly non-critical understanding of quantitative measurement. Before moving on I also recognise that my stance on these fields of study begins to be subsumed within practitioner-identities such as "mathematician" and "statistician", giving rise to a further angle of analysis by considering my place within or outside of communities of practice (Wenger, 1999, 2011; Farnsworth et al., 2016).

Mathematicians and statisticians

In a manner reminiscent of competing "dominant" and "conciliatory" discourses as a means of exploring my time as a learner at school (Chapter 3), here I construct oppositional characters of a "mathematician" and "statistician" as a narrative device to convey my evolving perception of their respective disciplines. However, in my analysis here, I draw a distinction between the discourse analytic approach that I used earlier, and an alternative Wengerian conceptualisation of "communities of practice", and in particular Williams et al.'s application of their framework to learner aspirations (Wenger, 1999, 2011; J. Williams et al., 2009, p. 5) which I feel is more fitting for this piece. Wenger, now Wenger-Trayner and writing with their partner, define:

A community of practice is a group of people who share a concern or a passion for something they do, and learn to do it better as they interact regularly. This definition reflects the fundamentally social nature of human learning. (Wenger-Trayner & Wenger-Trayner, n.d., paras 1–2)

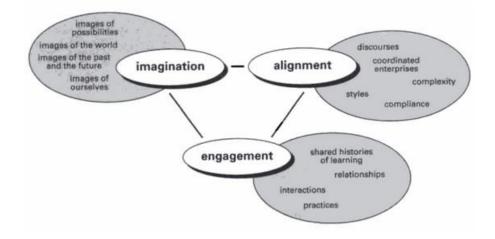
Thinking of undergraduate mathematics as being a community of practice therefore leads me to consider what is meant by doing in such a space, why I was drawn in a different direction – doing statistics and being a statistician – and how has this been constructed in my narrative. A Wengerian framing for my analysis sits in further contrast to my earlier approach as there is some dissonance between the explicitly stated and implicitly constructed versions of the practitioner-labels of mathematician and statistician. Where my time at school (Chapter 4) is presented in a way which shifts from dominant to conciliatory discourses of success, the latter form being a compromise-position and is therefore intentionally situated as subordinate to the former. Now, although my thinking around being "successful" does not disappear entirely, this vignette focuses more on the nature of the practices which I imagine to be involved in the disciplines of mathematics and statistics, while also just beginning to contemplate "the cultural practice in which... knowledge exists" (Lave & Wenger, 1991, p. 98).

Wenger (1999), extended on their earlier work with Lave by describing notions of participation and non-participation within groups defined by the learning and professional activities that takes place within them (Farnsworth et al., 2016; Lave & Wenger, 1991; Wenger, 1999). In this vignette, I begin to exclude myself from participation in community of undergraduate mathematicians and instead seek to identify as a statistician, constructing an image of what this might mean as a I go. More recent readings of the "social nature of human learning" described by Wenger-Trayner & Wenger-Trayner above (n.d., paras 1–2) alludes to how the notion of a community is not nearly as easily defined as the labels that I attach to them in the narrative. Solomon (2007), exploring learner identities of mathematics undergraduates, helpfully describes that:

there is a distinction to be drawn between membership of the wider community of the discipline and of the various other communities of practice which an undergraduate student is likely to come into contact with... experience of mathematics teaching and learning emphasises speed and performance... in terms of their belief in their ability to succeed in accordance with these values... they are full participants in this community. (Solomon, 2007, p. 93)

This point strikes me as relevant not only to my story here but is again reflective of my time at school; my earliest writings speak of my "full" participation – to follow Solomon's terms above – in the neoliberal-performative school, defining my "successful" experiences through my "performance" on standardised tests, even writing of my educational preferences in terms of shying away from "time-consuming" pursuits in my earliest writings (Chapter 4). Now at undergraduate level, the "rules of engagement... of communities of practice which emphasise summative assessment and surface learning"

(Solomon, 2007, pp. 93–94) seem well-established and remain dominant in my narrative. Wenger's model therefore seems useful for helping me to articulate further ways that I have claimed to belong or become excluded from these communities:



Wenger's "Modes of Belonging" (1999, p. 174)

Alignment and Engagement

These possible ways that I might "belong" to a community of practice seem to shift over the course of my writings in this chapter and beyond. My growing distain for the aforementioned "utterly tedious" work pushes me out of "alignment" (Solomon, 2007, p. 84; Wenger, 1999, p. 174) with the predominantly performance-orientated and superficial practices of undergraduate mathematics. Taking this line of thinking a stage further, I can also consider my narrative depiction of these experiences as illustrative of the interplay between my personal preferences and interests with overbearing influences of the institutions which I studied in and was assessed by:

The mix of participation and non-participation through which we define our identities reflects our power as individuals and communities to define and affect our relations to the rest of the world... When relations of non-participation are mediated by systemic institutional arrangements, they can reach deep into the definition of a practice (Wenger, 1999, p. 7)

Thus, Wenger's model not only leads me to contemplate the nature of the communities of practice that I may have been a part of – or at least those that I have constructed as devices in my narrative – but it also draws my attention to how the "systemic institutional arrangements" (Wenger, above) of the undergraduate course may have been integral to the way I make sense of these spaces and my identity in relation to them. For instance, I continually recognise the arrangement of assessment practices on the undergraduate

programme – dominated by Pure Mathematics modules – as being ultimately decisive in the credentials that I might obtain as a result of my studies as in my earlier analyses, I cannot "escape" them and therefore I must continue to engage with the practices of an undergraduate mathematician even if I am "negatively aligned" with them (Solomon, 2007, p. 85). In turn, this seems to become part of the way that I describe the process of studying Pure Mathematics at undergraduate level as purely rote, attributing no intrinsic interest or value to the experience, nor alluding to anything more than a surface engagement with the process of knowing mathematics. At no point have I viewed mathematics as anything more than a closed system of knowledge where I might simply aspire to get the "right answer" (Chapter 4) on the necessary tests. Solomon's study of mathematics undergraduates (2007) again neatly describes the context that I have depicted in my writings here, and therefore seems to build on what had already been established in my previous experiences at school:

the students tended to describe themselves as lacking control over their mathematical knowledge, **as following rules without understanding, and as vulnerable to failure** – staying with the subject is possible only as long as they can do it, and this facility can fail at any time. It is in this sense that most of the students express **identities of marginalisation in an alignment to mathematics procedures, which they learn to operate but do not contribute to**. (Solomon, 2007, p. 84, my emphasis)

Therefore, much like the students in Solomon's study, I present a simplistic and reductive image of what it meant to be an undergraduate mathematician – attending lectures and "regurgitating" whatever had been covered on a series of examinations, operating the taught content of the course in a manner acceptable to the community without holding any sense of ownership of the product of such practices. My image of the "statistician" is therefore presented as a counter-direction, an alternative form of practice which includes a different operationalisation of knowledge – however naïve – to aspire towards.

Imagination and participation

I state at several points how I imagine myself to be a "statistician". There is no evidence of an external conferral of such a status, and I will come to learn much later that the practices of a statistician (in the social sciences at least) are much more nuanced and problematic than simply making "authoritative claims about any field of interest". Nevertheless, my memories of practicing statistics at undergraduate level are presented as something approaching what Wenger describes as "legitimate peripheral participation": The process by which newcomers become included in a community of practice... peripherality provides an approximation of full participation... newcomers must be granted enough legitimacy to be treated as potential members... only with enough legitimacy can all their inevitable stumblings and violations become opportunities for learning rather than cause for dismissal, neglect or exclusion. (Wenger, 1999, pp. 100–101)

While my practices begin to allude to the work of my imaginary statistician and what I was taught about the many different contexts that statistical methods could be applied to, the only explicit signifier of any "legitimacy" in my writing is again found in terms of successful examination results: I note "achieving more highly in statistics courses" as the only concrete indicator that "I am good at statistics, even if this is not mathematics at all". This therefore renders the practices of an undergraduate statistician not significantly dissimilar to that of the mathematicians described earlier. Whether it is the high-level organisational structures of the university, or the lower-level communities of practice found in the mathematics classroom, the reductive effect of defining one's efforts by the score attainable on a standardised test is only barely masked by my claims of interest and engagement in the subject-matter of my story.

In a way then, this second pass at analysis of the vignette reaches the same conclusion as the first and is indicative of an unexpected degree of coherence between the two ways of making sense of my story. In both cases, whether considering issues of abstraction and credentialism, or how the activities I imagined and undertook as an undergraduate student constituted participation in communities of practice, the typically quantitative methods of assessment remain resilient in their ability to override all else, becoming a totalising way of defining my experiences and any legitimate grounding to my aspirations of being a statistician.

Vignette III: Reflecting on upset, fear of academic failure, identity

The abrupt and unplanned end to my undergraduate studies was a difficult story to recall, though I realise to an unfamiliar reader this may seem an unnecessarily egotistical or exaggerated claim. After all, yet another strategic decision – a move into government-funded teacher-training – saved me from actually leaving the university for another year. In order to try to make sense of my rather dramatic writings, before moving on to later periods in my life I will provide just a little background to my storying.

There are many aspects of my life-history that I do not wish to recount fully as part of these autobiographical writings such as numerous experiences of racial abuse, or other such difficult memories of earlier life. I do not feel these matters are centrally relevant to the substance of this thesis nor will I mention them again in my narrative. However, I do feel that it is worth conveying how such memories give me pause for thought when writing in such a dramatic manner about matters such as academic failure which, in comparison, may seem so trite to an unfamiliar reader.

As a child, I was consistently academically "successful" when compared to my peers, dark-skinned with an African name in predominantly White-British surroundings, even talking with a "southern" accent while residing in a "northern" county of England. These features set me apart, made me different, and continue to make me an outsider in the town that I was born and have lived in for over thirty years. Ironically, to me at least, these aspects of my being for which I was mocked, bullied and ostracised were also the qualities that I held – and continue to hold – central to *who I "am":* my identity. These were the traits from which I drew comfort in times of hardship, and the parts of my being that meant "*I do not belong in this godforsaken place that has caused me so much pain, I am better than this and will eventually find my way to somewhere else, somewhere better*". Thus, as much as I would not want to be stripped of my voice or my skin-tone, being branded as an academic "failure" creates just as strong a feeling of fear and upset in my life, and is my reason for why they feature so prominently within my writings.

It also follows that one further point of learning from my time as an undergraduate was that I had already garnered and relished something of an identity as the "odd one out" as a direct consequence of my chosen field of study. Only a small proportion of the students on the mathematics degree – I recall between ten and twenty colleagues – progressed to a fourth year of study and I was the only one with an interest in statistics. As I will describe later, this has been problematic at times during my professional life, but here at university it meant that I was once again special, interesting, different.

Post-writing alterations

Details and phrasing regarding my background and locale have been altered, removed, and fictionalised including elements irrelevant to the analysis.

Defence, inadequacy, excuses

This short vignette sits as something of an aside to the mostly academic and professional activities depicted elsewhere in the thesis so far. While the early phases of my story focus on the interplay between self-perception and the organisational structures of schooling and university, here I analogise my attachment to the notion of academic success to that of my more visible physical and verbal characteristics. My writing begins in a manner that Freeman describes as "a product of the present and the interests, needs, and wishes that attend it" (Freeman, 2007, p. 138): the raison d'etre for this piece is to attempt to excuse the egocentric nature of my writings and is therefore oddly temporally situated as a more contemporary reflective narrative, alluding to a current sense of embarrassment at the dramatic way that I have presented my early vignettes. On re-reading this piece I wonder if, before immediately examining the tone and structure of the work, it is in fact quite telling that I have been compelled to include a recollection of these issues at all, being one of the more explicit examples of where my vignette:

conflates life with text, somehow believing that the moral value of the life necessarily amounts to the aesthetic value of the text... Writing pretentions, in effect, introduce new kinds of doubts, about the writer's self-awareness, motives, or responsibility to truth. (Egan, 2011, p. 54)

Revisiting this piece then, I wonder about my continuing unease: Why I should feel the need to excuse myself in the first-place in such writing, being presented "as if it was appealing for an empathetic response" (C. Watson, 2009b, p. 114)? Reading closer-still, it may seem somewhat disingenuous that I rudely and unempathetically dismiss peers in my locale of origin, that I singularly do not belong such a place and must escape what I have written-off as a wretched environment. I am therefore led to an interpretation of this vignette as an exercise in othering, and how being othered serves both expressive and analytical purposes for this thesis, as Sparkes & Smith explain that "the experiential body of the researcher in narrative studies, involved as it is in acts of othering and being other, is able to provoke intense moments of self-reflection and critical examination regarding its role in the process of analysis" (Sparkes & Smith, 2012, p. 70).

In order to excuse my positioning as distant from all who surrounded me, I note my physical appearance as a result of my heritage, my spoken dialect and my academic success to be the features that I hold most centrally definitive of my identity. Crucially, I position myself as an outsider to my local context in each of these ways, as other to those who surround me and – by implication – othering the silent inhabitants of my schools and locale. Francis refers to the latter case – that of being identified as being more academically successful than most and ostracised for doing so – as being "The Boffin-pariah" complex, and that for her school-age participants: "being 'fixed' as a Boffin had a certain liberatory aspect in the consequent positioning as 'outside' the social, and hence beyond pressures to conform and balance" (Francis, 2009, p. 659). The role of the less-

clearly-defined others in this piece is to act as the inhabitants, the constituents of the "godforsaken place that has caused me so much pain". Francis' work once again aligns with how my vignette then plays out: "The discursive resistance and retaliatory positioning ... draw[s] on discourses of social class and morality dominant outside the world of the classroom, and such discourses may facilitate constructions of moral and intellectual superiority" (Francis, 2009, pp. 659–660). I am particularly intrigued by Francis' reminder that my positioning as other is embodied in the way that I have chosen to (re)create my narrative here and elsewhere, and I am engaging into a deliberately disparaging depiction of those around me in an extremely defensive manner.

My attachment to traits which constitute difference extends to my ethnicity, partially aligning with Robinson and Gardner's study of adults living in Wales where they found that: "For some minority ethnic residents, being 'different' was perceived as creating social benefits. Some interviewees **enjoyed standing out**... and welcomed the increased attention that they would garner as a result" (Robinson & Gardner, 2004, p. 95, my emphasis). While this notion of social benefits is of course in direct opposition to my recollection of racism, an attraction to nevertheless "being 'different'" is an idea which continues to appear several times in my later writings, embracing and indulging in a position of difference while ostensibly seeking some semblance of belonging ("I belong here", Chapter 4; "I began to feel a real sense of belonging", Chapter 7). In the writings athand in this chapter, such wholesale othering is again evident, with my self-proclaimed identity as a statistician setting me apart from the mathematicians, and my concluding thoughts to this piece reinforcing my history of self-identifying through difference.

Drawing together chapters 4 and 5: school and undergraduate studies

By incorporating both power and belonging into an ecology of identity, the duality of identification and negotiability provides a sophisticated way of talking about the social construction of the person. It does not simply create a position between individuality and collectivity, but neither does it simply assimilate them. Instead, it takes a different cut at the individual-collectivity dichotomy by recasting it in terms of processes of identity formation. Neither identification nor negotiability is inherently collective or individual. Yet their interplay in specific settings is what defines the meaning of the collective and the individual as an experience of identity. (Wenger, 1999, p. 212)

Wenger's words seem to capture what I feel has emerged in the opening two chapters of analysis. My earliest memories of schooling are told through a lens of individual performance, depicting my complete reliance on the results from standardised assessments to grant me credentials, recognition, and a sense of legitimacy in my endeavours, ultimately allowing me to progress to the next stage of "the education game" (Reay, 2008, p. 646). Almost always presented as my own agentive decisions, merely of varying effectiveness, this is a striking resemblance to an idealised neoliberal self: "The dominance of choice discourses and neo-liberal notions of agency seem to have eradicated an understanding of wider structural forces" (Reay, 2008, p. 646). Indeed, for as much as I recognise and defer to the power of the educational institutions surrounding me at various times, I seem to struggle to negotiate a clear sense of individual identity (even my eventual attachment to the label of statistician is quite a naïve one) with ideas of belonging and othering becoming gradually more prominent in the way that I have fought to construct myself coherently through the narrative.

The negative, distressed story that I end this section with points to a longstanding sense of inadequacy and attempts to defend against being judged as such. However, this seems to be only a more explicit, self-aware turn to what has otherwise been a somewhat cheerless story so far anyway, as Grant and Zeeman (2012, citing White & Epston, 1990) describe in their exploration of the possibilities of psychotherapeutic autoethnography. They describe such negative life history narratives, including some of their own writings, as being repetitively "self-depreciated and condemnatory... underpinned by themes of 'worthlessness'... 'deficient', or 'a failure', to name but a few... corresponding stories about the world might include that it is 'cruel' or 'unforgiving'" (A. J. Grant & Zeeman, 2012, p. 8). On further, distanced reflection, I do realise how absurd such a negative line might seem given that - depending on one's frame of reference - I might just have strongly argued that I have been very successful in my academic and professional endeavours to this day. I have therefore found it useful to notice, as Grant and Zeeman did, how the repeatedly negative valence to my storying and the strength of the emotive phrasing that I utilise so frequently is a relevant dimension of the vignettes to consider alongside the more overt, substantive content pertaining to contexts, actions and characterisations.

Whether seen in a positive or negative light, for all my deference to the credentials which constitute the fruits of my labours, it is emotion, discourses and communities which have emerged as being powerfully influential in my vignettes. I can again call on the extant literature to apply neoliberalism as a descriptive category here: O'Flynn and Peterson, examining how the narratives of two young women subsume "Neoliberal technologies of the self" (2007, p. 268) capture the strength and form of the emotions which I recognise in my own journey towards becoming:

a citizen who not only looks 'good' on paper in the form of the portfolio or resume, but who lives the discourse, and whose life is made possible and constrained by constant imperatives to be and do more—**imperatives that promote a sense of guilt and self-dissatisfaction** (O'Flynn & Petersen, 2007, pp. 468–469, citing Walkerdine et al., 2001, my emphasis)

By this stage of my thesis, my vignettes suggest that I did not recognise the relationship suggested by O'Flynn & Petersen at school or as a student. This leads me to appreciate how these ideas reflect not only the way that I have chosen to make sense of my time at school and university in my writings, but how these ways of thinking may have been repeatedly taught, learned and reinforced by the collective ways of being in these spaces and subsumed within my own frames of reasoning. It is only after many years of revisiting the same contexts from multiple perspectives – becoming a teacher leading me to problematise being a school-age learner, becoming a teacher-educator leading me to reflect on becoming a teacher – which has eventually prompted me to give so much thought to the formative influences that educational institutions can have on learners' "imperatives" (to use O'Flynn & Petersen's term, above). Therefore, in the next sections of my thesis, I continue working through critical events in my life history chronologically where I become more conscious and troubled by these issues.

Section 3: Professionalisation and de-professionalisation

Chapter 6: "Becoming" a teacher while "learning" to labour

Introduction

This chapter charts a personally significant, transitional period in my life, concluding nearly two decades as a full-time learner to become a professional pre-university educator around the late 2000s. In the vignette, I recount my experiences from a single-year programme of Initial Teacher Education (ITE) in England, a course that I found particularly demanding yet deeply transformative: I become subject to formal governance structures surrounding teaching and active performance-appraisal mechanisms, and begin to narratively construct my understanding of professionalism in a ways which are in alignment with an idealised neoliberal subject (Dyer & Keller-Cohen, 2000; Perryman et al., 2017; C. Watson, 2006).

Vignette IV: The only way is forward; reluctant yet transformative success

as a teacher

Becoming a teacher of mathematics has been one of the most profoundly transformative experiences of my entire life, yet it was quite an *unexpected* move at the end of my undergraduate studies. I had no way of pursuing my growing interests in statistics into my early twenties as I could not afford to fund a postgraduate qualification in the subject and I had no chance of obtaining a scholarship with my lacklustre academic credentials.

I had no real interest in teaching but enrolling on a secondary initial teacher education (ITE) programme was – as had become typical for me – a pragmatic choice. This was the only postgraduate course which was eligible for a student loan to cover tuition fees. Additionally, the government provided a generous stipend to trainee teachers of mathematics. I could therefore enrol on the course, stay at university for another year and obtain a postgraduate qualification. I had nothing to lose, I thought.

I was quite wrong.

The ITE course was overwhelmingly intense and demanding from the very start. Within just a few weeks I had completed lengthy, masters-level written assignments, quite a shock to a student who had only undertaken highly structured mathematics examinations for several years. Then I began teaching. For month-upon-month I would spend every waking moment immersed in planning

"The Teachers' Standards" – required to obtain Qualified Teacher Status (QTS).

But I was trapped. My feelings of failure surrounding my undergraduate studies had not subsided so in both aspects of ITE – the academic and the professional – I *had to succeed*. I could not bear to fail yet again and there was no strategic way of navigating around challenging aspects of the course. It was unlike anything I had ever experienced before, working to the point of exhaustion day-after-day for fear that I would not achieve the required standard.

I felt drained and depressed. The thought of devoting my life – every minute, every ounce of energy – to a career that I had no intrinsic interest in was demoralising. I was drowning under the workload and my labours felt futile at times. This was reinforced in daily experiences in my more difficult lessons, spending hours planning just to have the potential for some uninterested pupils to disregard my efforts.

Yet I persisted. The fear of failure was too great and the intensity of the work meant that I could not step away for even a moment to consider other options: I simply had to keep pushing headlong to the end of the ITE year. It was therefore quite unexpected when my feelings seemed to change, I changed.

Over time, I learnt to survive the substantial, competing demands of a teacher's life. I became more efficient at balancing the planning, resourcing and evaluation of lessons – the bulk of my workload – to the extent that I could reclaim at least a few of my evenings and weekends. I began to think that I might survive the year, at least.

But the unexpected changes did not end there. Not only was I becoming able to cope with the procedural demands of teaching practice, I also began to develop a sense of self-efficacy. Even if a lesson went badly, I *knew* that I was able to do something about it, learn from the experience and teach more effectively next time. I began to recognise that I had developed a base of skills that I had not anticipated: I was capable of motivating pupils to work, explaining mathematical concepts with confidence and fluency, deftly defusing arguments and managing disruptive behaviours in my classroom. I would leave most lessons feeling as though I really was *a teacher*.

With a couple of months remaining on the course, I was a different person. I continued to expend vast amounts of energy in and out of the classroom but this was now part of my identity. I gained a reputation for being slightly frantic, energetic yet highly productive and I received consistently positive reports from my tutors and host-teachers.

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I was still not convinced that I would enjoy a career in schools though. I found much of the basic mathematical content I was teaching to younger children to be utterly tedious, the "Advanced" level courses for post-16 students were much more interesting. However, this was a very small proportion of my teaching time, an inevitable consequence of only a small fraction of pupils pursuing mathematics into post-compulsory education.

Approaching the end of ITE, many of my colleagues on the course had obtained teaching posts for the following year. My emotional turmoil over the previous months had meant that I had little interest in committing myself to a contract, but then I noticed an advertisement for a job at a specialist educational institute.

The specialist pre-university institute (SI) sounded remarkable, and my role would focus on the advanced elements of pre-university mathematics that I had become so attached to. This seemed like the only way that I could really be satisfied but also a rare opportunity; there were only a small number of SIs in the country compared to over three thousand secondary schools, and I had never heard of anything like them before.

I submitted an application but felt doubtful about my prospects. I was clearly applying for an extremely rare and desirable position, beyond my capability perhaps. My worries about failure once again came flooding back., only further reinforced when I approached the head of department at my placement school for a reference who summarily exclaimed: "they won't look at an NQT" (a Newly Qualified Teacher).

I got the job.

I was astonished. I revelled not only in proving my colleagues wrong about being dismissed as an NQT, but also in precisely what this meant for my life over the coming years. In just the few short hours of the interview-day, I could feel the atmosphere of the SI: it was a mini university, a hive of scholarly activity, nothing like the schools I had grown accustomed to. This was somewhere that I felt I could really *teach*, and I could really belong.

During my interview for the job, I had been asked about my mathematical preferences, a topic that had been unimportant as a mainstream, generalist trainee. With a definite resonance to my previous experiences at university, I learnt that the majority of mathematics colleagues at the SI disliked statistical analysis and that my interests would complement the department well. This became significant in my later development as a teacher but for now was my key selling-point, I could meet a clear need at the specialist institute by teaching statistics as part of their A-levels. *Being different was a good thing here.*

But more important than anything else, I had not failed.

Post-writing alterations

Details and phrasing regarding my background and locale have been altered, removed, and fictionalised including elements irrelevant to the analysis.

Rereading and analysis – developing and embracing a work-ethic

This vignette is a reflection on my feelings about qualifying as a schoolteacher: pride in my achievements along with surprise at finding success in ways that I had perhaps not anticipated. The triumphant tone of the writing is reminiscent of my earlier A-level Mathematics results in the face of questioning teachers, culminating in my seemingly improbable employment at a specialist institute despite similarly doubting comments from my superiors. However, addressing my year of training as a teacher, many of the features that I have decided to foreground in this vignette are capabilities as an efficient, productive worker within the neoliberal ideal, going so far as to embrace them as personally defining: "this was now part of my identity". While this vignette sees a shift to a slightly more positive tone than my earlier writings, along with the inclusion of a slightly wider range of extrinsic and intrinsic influences on my thoughts, this is my first clear example of a "discursive construction of **professional** self through [a] narrative[e] of personal experience" (Dyer & Keller-Cohen, 2000, p. 283, my emphasis), one of resilience and self-motivated productive labour. The central focus of my re-reading is therefore to explore how my narrative and notion of identity serve several purposes, ultimately aligning my personal desires with the priorities of an idealised neoliberal subject.

Within the vignette, I have documented moments of tension and transformative episodes that I seem to have deemed constitutive of my emerging identity as a professional teacher (Nichols et al., 2017). Though I have found it quite challenging to disentangle the undertones of broader issues that I will address in later chapters, I can identify two pivotal moments of realisation or surprise. The first, becoming competent as a student teacher, captures a reshaping of my earlier notions of success to encompass traits of a dedicated and productive worker in spite of physically and emotionally draining experiences. The second, my employment at a specialist pre-university institute, sees the emergence of tensions between thoughts of belonging but also difference as a teacher, all in an effort to be seen as productive, useful and therefore successful as a teacher-labourer. As with previous chapters, I will now reflect upon the major themes of the piece while being mindful of the prominence I have given to moments of epiphany through an emotionally challenging yet apparently revelatory episode in my life.

Transformation: adopting the discourse and becoming a teacher-labourer

One overarching motif for the writing is that of an unexpected yet profound transformation. That I never intended to become a teacher and instead felt that I was merely following the path of least-resistance therefore sets the scene for shift of great magnitude in my thinking; I go from wishing for nothing more than "to stay at university for another year" to seeking full-time gainful employment and will go on in the next chapter to describe my position as a professional in good standing with "mathematics colleagues at the SI [specialist institute]". While this vignette addresses the events unfolding over approximately one academic year as a student teacher, a prominent moment of transformation that I notice in re-reading the piece is where I have "learnt to survive the substantial, competing demands of a teacher's life". I feel that my choice of words here is quite telling in that I am intentionally placing the management of labour as being quite central to what it meant to feel successful as a practitioner:

The quality teacher... becomes presented as a productive worker who, to paraphrase Marx (1976, p. 677), in addition to belabouring the heads of her students, 'works herself into the ground' to enrich the capitalist system and to add value to what has been invested in 'a teaching factory' (Kostogriz, 2012, pp. 400–401)

This is a rather sobering, disappointing and cynical view but one that, in my current frame of mind, I am inclined to agree with; how I have chosen to "re-present, re-examine, and re-vision" (Ellis, 2009, p. 12) this issue is not only a pivotal moment of realisation in my story, but is likely reflective of my life as a teacher ever since.

Returning to the moment at-hand, I am mindful that my conceptualisation of a teachers' labour is being defined in my narrative in quite explicit terms, conveniently aligning with elements of the Teachers' Standards that I was bound to in the qualification process (Training and Development Agency for Schools, 2007) such as "motivating pupils ... explaining mathematical concepts with confidence and fluency ... managing disruptive behaviours in my classroom". Thus I am reminded of the layering of my reading to recognise, as Smith notes, "the unit of analysis is not the individual, but discourse as used by individuals... and the power circulated in authoring those positions" (Smith, 2010, pp. 100–101). While it is perhaps unsurprising that I would turn to descriptors that have

become so commonplace in the UK and internationally (Tuinamuana, 2011) to articulate my thoughts to an unfamiliar reader as signifiers of teacher-professionalism, these are nevertheless grounded in the dominant discourses that I have been immersed in ever since qualifying as a teacher and working within the sector for over a decade.

In recognising that I have adopted the lingua franca of the English state-schooling system, I am minded of Vygotsky's (1978) conceptualisation of social constructivism and in particular "internalisation": "the process by which culture becomes mind" (Zittoun & Gillespie, 2015, p. 1). My worry therefore moves beyond a seemingly convenient alignment of my thoughts with the discourses surrounding me, to how my writing perhaps belies hidden aspects of internalisation that go beyond those that I have addressed explicitly so far.

The discursive context of "all the professional expectations – "The Teachers' Standards" – required to obtain Qualified Teacher Status (QTS)" are used as a deliberate framing for my discussion of teacher training due to their position as a compulsory, regulatory mechanism which would be used to determine whether or not I would qualify as a practitioner. However, Kostogriz (2012) brilliantly captures my feelings on rereading the vignette, as although my story is presented as a profoundly personal, affective shift to embracing and demonstrating these qualities, it also neatly positions me as a willing subject to the performance-management structures of the teaching profession in a manner that – especially with my lens of experience and previous chapters of analysis – I feel has been far too effective to be a mere coincidence:

The standards-based rationalization of teachers' work attempts to transform the subjectivity of teachers, **turning them into competitive, self-motivating** professionals who **align themselves** with new regulations and, in doing so change their relations to themselves, to their colleagues, and students. (Kostogriz, 2012, p. 401, my emphasis)

To be clear, it is the way that I position myself in such a way, through the narrative depiction of my training, to be most troubling. My story – including the subsequent expansion of my thoughts from this transformative episode – is not only conveniently aligned with major themes from the (then and contemporary) teachers' standards ("... motivating pupils ... explaining mathematical concepts with confidence and fluency, deftly defusing arguments and managing disruptive behaviours ...") but it is only through the mechanism of "articulation" that I feel capable of seeing myself as a professional;

there is no intrinsic worth in my efforts without speaking through the "discursive field" surrounding my role:

A 'professional identity' can be theorized as arising in the subject positions available within a specific historically and socially situated dominant articulation of the discursive field. In order to perform a 'professional identity' the subject must be positioned within this articulation. (C. Watson, 2009a, p. 472)

Exploring my self-positioning further still, Paltrinieri's notion of "The Manager of the Self" (2017, p. 467) captures how my narrative places these affective shifts towards work within my own locus of responsibility and control, and being a necessary consequence of the "psychological contract" (2017, p. 467) that I have entered into with the teaching profession. Paltrinieri's words again resonate strongly with my story, as the type of self-guided development that I have depicted is yet again asserted within the neoliberal ideal as:

a "lifestyle" based on the appreciation of one's own human capital and the infinite task of perfecting oneself to match up our "skills portfolio" with the labour market. These transformations of neoliberal subjectivity have costs that can be summarised by the widespread phenomena of burn out, but also the birth of a new form of racism, based on "quality" of human capital (skills, abilities, capabilities). (Paltrinieri, 2017, p. 159)

Indeed, throughout the vignette I am presenting my skills as those most likely to secure employment, but I also feel something of an injustice for how, without such commodified qualities, I am rendered otherwise worthless-by-default. These thoughts also ring true of other authors' writings on the influences of neoliberalism on self-image and worth: McDonald, Wearing and Ponting (2007) "trace some of the links between neo-liberalism, narcissism and the influence of work, leisure and consumer culture on self-identity" (p. 489) finding that "The construction of self-identity is characterized by the objectification and commodification of one's body and personality ... [and that] employment in neoliberal societies acts as a primary source of identity and status for many adults" (p. 492). Not only does this reflect the authorial prioritisation of certain aspects of my claimed cultural capital (Bourdieu, 1986; Reay, 2004) in the construction of the vignette, but also draws my attention to the relationship between the grand narratives of neoliberalism and my ability to reflect critically even now. I am left wondering how my personal attachment to the enabling power of my sales-pitch, foregrounding what I perceive to be the credentials, experiences or skills needed for securing employment, may in fact be quite a hinderance when attempting to meaningfully explore where and how these thoughts might have originated or have been influenced by my surroundings.

An illusion of agency: navigating the path to qualified teacher status

Though I attempt to acknowledge any obvious external influences on my actions, I again present myself as the arbiter of profound, affective change. Between the two pivotal moments mentioned at the start of this analysis, I depict a period of my life where I am working on myself in a manner that is seemingly at-odds with my approach to circumventing challenging situations earlier in my story. This shift of thinking is presented as a period of intense emotional turmoil: "drained and depressed... demoralising... draining... futile" and, for a time, feeling as though there was no perceivable alternative way that I might proceed. The foregrounding of such a negative emotional state can also be seen in Yuan and Lee's work with a student teacher, claiming that such intensely troubling feelings may be a result of intersections between the expectations and norms of a student teacher's professional surroundings, and their personal beliefs, interests and desires for their work. Of particular relevance here, I feel, the authors place "disillusionment and determination" together in their discussion (2016, p. 833), positioned strikingly not as a dichotomy but more as a dyad of interrelated ideas. In my case, I depict a disillusionment with my previous approaches to success with ease as the catalyst for my determination to continue struggling towards becoming a teacher. Furthermore, this seems to lead to a sense that laborious struggle is intertwined with my constructed teacher-identity; Yuan and Lee title their paper with the words of a student teacher that would eventually mirror my own, inward-facing narrative: "I need to be strong and competent" (Yuan & Lee, 2016).

Yuan and Lee's thoughts are also notable for where they diverge from my own. My priorities as a student teacher are presented as predominantly egocentric whilst the participant in Yuan and Lee's study is struggling to reconcile "his attempts to resist the normative discourses in the school... and initiate positive changes to students' learning that aligned with his own educational beliefs" (Yuan & Lee, 2016, p. 836, citing Sexton, 2008). On further contemplation of affective and alienated labour I am once again disheartened by my choice of focus in the writing of the vignette. I can vividly recall several cases where I was indeed troubled by "ethics of care in the profession" (Kostogriz, 2012, p. 402) yet these do not make an appearance in the story that defines my becoming a teacher. Rather than contemplating any substantive educational value in my efforts in relation to the children I was teaching, my story is entirely constructed within the predominant discourses of being a productive and successful practitioner; "the

normative function of representational practices" (A. J. Grant & Zeeman, 2012, p. 7) serve to again position me within the assumed ideals of the neoliberal worker-subject. To summarise, I feel that in my construction of a story intended to be understood by a relatively unfamiliar reader, I am making some substantial assumptions about the desirability of certain teacher-traits such as the prioritisation of external signifiers of performance, collegiality and ultimately being productive within the institutions of schooling.

Before working my way towards the second pivotal moment in this vignette, I will continue to explore some of the assumptions I have made and implications of my authorial choices in presenting a self that values productive labour as a teacher, particularly when this is in such a strikingly different manner to my earlier stories.

Beyond just surviving working life: fulfilment, happiness

To further guide my analysis, and reflecting further on the emotional nature of the story presented here, I have been drawn to the writings of Smith, titled "Choosing more mathematics: happiness through work?" (2010, p. 99). Smith constructs and utilises "a theoretical framework that positions work and happiness as opposed, managed and [uses the term] working on the self... to examine [mathematics] students' dual engagement with individual practices of the self and institutional practices" (Smith, 2010, p. 99). Her work builds on Foucault's "practices of the self': the processes that inscribe what it means to be an individual within a particular culture" (C. Smith, 2010, p. 99, citing Foucault, 1990). Of particular relevance from Smith's reading of Foucault is the application and reformulation of these ideas within the context of schooling and choice: "We work on our identities by making choices and by explaining them to others and to ourselves. Choosing is a practice which tells us that we are agentic individuals, but our choices are made in social and discursive contexts" (Smith, 2010, p. 101). Although the connection to schoollevel mathematics is rather coincidental (for now at least, as I will return to Smith's work when considering my subject-teaching of pupils and student-teachers later) it is instead the illustration of attitudes towards forms of educational "work" and one's sense of "happiness" which relate most strongly to the vignette here. For a story that begins with a sense of despair at the overwhelming workload of a student-teacher, I quickly move to working on myself in quite explicit terms: "I learnt to survive the substantial, competing

demands of a teacher's life. **I became** more efficient..." and further-still, these become the positive counterpoint to my earlier negative emotional state.

Moving through the vignette, my list of competencies are presented as what it meant for me to "leave most lessons feeling as though I really was a teacher" and thus I begin to construct an image of the professional worker, as discussed earlier. Schunk & Usher suggest that such a naïve way of representing such circumstances may be explained by a desire to (re)claim some sense of control over the direction of my life (in a manner parallel to Smith's agentive "choices", earlier) within their description of "social cognitive theory":

A key point underlying social cognitive theory is that persons are motivated to develop a sense of agency for being able to exert a large degree of control over important events in their lives. Among the influential variables affecting motivation are goals and self-evaluations of progress, outcome expectations, values, social comparisons, and self-efficacy. (Schunk & Usher, 2014, p. 26)

The ways in which I relate notions of agency and professional identity to my situated practices are not incompatible with my much earlier drive towards a perceived elevation of status and the foregrounding of credentialism as capital. Scanlon, Rowling and Weber therefore capture how these seemingly disparate threads of my chapters so far may be seen as bound together and interdependent in depicting identity-negotiation as I progress through social contexts, from school and university towards employment:

Identity refers to the salient, situated characteristics that individuals attribute to themselves and which are attributed to them by others... the individual characteristics of identity emerge through social interaction; through the dialectic between the individual and society... a view consistent with Bourdieu's notion of 'cultural capital'. (Scanlon et al., 2007, p. 227).

Thus, this leads towards the second moment of reflection in the vignette, where I attempt to reconcile the characteristics that I have needed to exhibit in order to successfully pass my teacher-training, while also needing to identify my unique selling-point that could explain my improbable employment as a newly-qualified teacher at a specialist institute.

Reconciling a sense of "belonging" with uniqueness

Rather than using this point to identify fresh themes, I am instead put in mind of some issues which seem to have been lurking beneath the narrative for some time, and re-emerge at this juncture between student and fully-qualified teacher. First, there is still a distinct air of arrogance in my writings. I depict a hierarchy between schools and specialist institutes, in terms of employment conditions and the nature of the educational activities undertaken in such institutions. Later paragraphs tie these ideas to my own positioning in quite a personal manner ("This seemed like the only way that I could really be satisfied..."); I describe the specialist institute as an institution which aligns with my values and interests, conflating my usefulness as a human resource with a sense of "belonging" or rather, in re-reading the story, a disappointing undertone of entitlement. A further theme which has emerged in previous vignettes, and at-odds with the aforementioned "belonging" is an attachment to the idea of being recognised as unique or special in some way. I highlight my expertise in statistics as "my key selling point", once again reducing my educational experiences to a tradable commodity. This, and the themes explored above, seem somewhat muddled as I re-read this vignette. I seem to have settled into deliberately conflating or unintentionally confusing remarkable personal qualities with traits that happen to be expedient to the institutional surroundings I found myself in, characteristics and experiences which are otherwise quite mundane. Together, these are themes that will underpin the next stage of my discussion, attempting to understand and capitalise upon my interests and skills as a teacher of mathematics, all while demonstrating my reliance on the language expected of the ideal neoliberal worker-teacher.

Chapter 7: Becoming a "good" teacher, professionalisation

Introduction

This chapter sees the continuation of my development of a high-performing professional identity, reinforcing the central positioning of quantitative measurement of performance (P. Moore & Robinson, 2016), becoming a motivation for continued learning within a cycle of personal improvement, expanding my teaching repertoire.

The vignette which follows is one of the more positive stories in this thesis, I became a teacher during period of international upheaval – the global financial crisis of the later 2000s – which has subsequently been suggested to have been a significant catalyst for an widespread intensification of performance management practices amidst discourses of precarious employment during a period of national austerity (Bourassa, 2017; W. Davies, 2017; Sofritti et al., 2020). However, I would not become aware of these texts until later in my academic career (Section 5) nor do I raise these matters as deleterious in the vignette itself. I instead focus on my socialisation as a practitioner in my specialist institute and the closest visible benchmarks by which I might positively appraise my professional standing: my learners' examination results and comparison to more experienced colleagues.

Vignette V: Becoming a better mathematician and "belonging" as a teacher

For a career that I never really wanted, I eventually found being a teacher of mathematics to be an enjoyable and genuinely rewarding experience in ways that I had not anticipated. My struggles during the year of Initial Teacher Education set me in good stead for my work at the specialist institute. I felt confident in my abilities, resilient under a heavy workload, so much so that I very quickly began to expand my teaching repertoire in a way that I feel would have never been possible elsewhere.

As my specialist institute, quite literally *hundreds* of students were pursuing mathematics qualifications at any given time, and our work was entirely focused on a narrow pre-university age range when compared with the broader remit of most settings. This meant that we had the capacity to offer several options in applied mathematics to our students. All who enrolled on the A-level course had to study a core of "pure" mathematics – as I had – but approximately one third of their work could be focused on statistics, decision or mechanics.

I recall, in the very early days of my work at the SI being quite envious of the more experienced members of staff for their mastery of such a wide range of mathematical skills. Students would often visit our office to ask for support and I, along with other newer colleagues, would be able to assist in our areas of specialism but only the more established members of staff could be relied upon to *know everything*. This prominent part of my daily work as a teacher – directing inquiries to the mechanics specialist or the decision specialist – was a constant reminder of my failings, my deficiencies as a mathematician.

I had deliberately avoided the study of mechanics – mathematical modelling of forces and motion – for much of my time as a student, and had simply never been exposed to much decision mathematics, the study of computational algorithms. However, my newfound confidence following my transformative ITE year led me to finally *teach myself* these areas of mathematics. Each year, I would ask my Head of Department to place something completely new, that I had never taught before, on my timetable. Within just a few years, I had confidently taught all three branches of applied content, eventually extending into so called "further" modules of highly advanced study for the age-range, approaching undergraduate-level mathematics.

I am proud of this achievement, being able to teach myself branches of mathematics that I had shied away from for so long. The real test of my learning was now quite different to previous experiences too: / was not taking an exam but my students were. At the end of each year I would skim through a couple-of-hundred exam-scores and feel a very personal attachment to the results. These moments represented a tangible, profound effect on the lives of my students as a direct consequence of my actions as a teacher. Again, due to the unique nature of the institute, students only attended for a few years and were very quickly embroiled in university applications, pursuit of apprenticeships and so on, so these exam results could be life-altering on a very short timescale. This was the product of my life's journey through education, and where I began to feel a real sense of belonging. My results were on-par with other, more experienced teachers, and I was satisfied, reassured of my skills as a pedagogue. *I was a good teacher*.

Post-writing alterations

Several details were revised, removed and fictionalised in relation to the contexts and characters depicted in the writing.

Response and analysis: Teacher-identity work

I begin this vignette by reiterating my surprise at developing an attachment to my role as a teacher, depicting a growth in my confident command of mathematical subject knowledge while continuing to be "resilient under a heavy workload". I can once again recognise the act of writing myself into the neoliberal ideal, constructing an image as a productive worker-teacher who is centrally and narrowly concerned with the performance of their students on standardised assessments (Loh & Hu, 2014; Robson et al., 2004; C. Watson, 2006). In this analysis, I reflect on how my subject-position within the teaching establishment seems to be "discursively produced" (Søreide, 2006, p. 528). I also identify two further threads of reasoning within my narrative presentation: the construction of an idealised teaching elder (highly experienced, respected and knowledgeable) followed by my claim to an increasing sense of belonging in such a position.

Socialisation and characterising "a good teacher"

As a starting-point, my narrative seems to align with Britzman's distinction "between [a teachers'] role and identity... 'whereas role can be assigned, the taking up of an identity is a constant social negotiation" (Johnson, 1997, p. 824, quoting Britzman, 1992). I held the role of Teacher of Mathematics from the very start of my employment, and I must have been adequately competent and qualified to be offered the post to begin with. Nevertheless, my recollection of "being quite envious of the more experienced... members of staff for their mastery... [who] could be relied upon to know everything" acts not only as an embodiment of my anxiousness over any symbols of inadequacy as an early-career teacher (Yuan & Lee, 2016) but also becomes a device for constructing and characterising a hierarchy of professionalism, one that I am driven to be assimilated within and to ascend. The claim that my colleagues were mathematically omniscient is, of course, something of an exaggeration and an unrealistic prospect, but such tropes serve the narrative purpose of positioning myself as a novice working towards becoming a "good" teacher in their image; "These more experienced others play a significant role in supporting teachers to take a more active role in their professional learning" (G. Adams, 2017, p. 168). The scenario of students approaching selected, trusted elders for assistance with their mathematical studies becomes the space for my personal concerns to be realised, a public manifestation of my deficiencies amongst the skilled mathematicians in my department.

I characterise the more established, elder practitioners "as someone with special competencies/knowledge" (Søreide, 2006, p. 532) and seek to direct my own development in such a direction. Vallas, Finlay & Wharton (2009), and Lacey (1977)

before them, explore similar teacher narratives to my own where novice teachers are compelled to emulate more experienced or senior colleagues. They suggest that this is not only a mechanism of induction into the working processes of a teacher and the expectations of the institution, but that the socially situated and constructed nature of these expectations feed back to the inductee as a powerful signifier of adequacy or competence as a practitioner, a process of socialisation:

The primary mechanism for controlling professional work is socialization into the values, norms and standards of the occupation... Socialization means that **established doctors**, **lawyers**, **and scientists teach newcomers** how to be a 'good' doctor, a 'good' lawyer, or a 'good' scientist. (Vallas et al., 2009, p. 155, my emphasis)

However, where Vallas et al. seem to position the elder professionals as teachers or nurturers of the junior entrant, I describe much of my shifting perspective and development as being quite internally-driven: I construct success-criteria in this context and intentionally guide my conduct accordingly. This again-egocentric, introspective approach to making sense of my direction as a new teacher leads me to ponder Søreide's work on teacher-narratives, specifically "the narrative resources for identity construction... teachers have access to" (2006, p. 527) and how I seem to have a very limited repertoire at my disposal for storying my early years as a teacher.

It is only through my subsequent experiences, further reflection and this retelling of my story that I feel quite conflicted and far more negative about my priorities as a new teacher, and the possible implications of my expressive choices even now. For example, my success is mostly framed in terms of "the measurable requirements of prescribed curricula and sets of narrowly conceived, instrumentally oriented competencies" (Day & Smethem, 2009, p. 141), especially my "very personal attachment to [exam] results". I have embraced a reductive teacher professionalism discourse that I would later come to loathe, yet its effectiveness in capturing my memories of early years in-post leads me to recognise a naïve subjectification: I have adopted "the master narrative of deficit by default" (Settlage, 2011, p. 803) as the central mechanism explaining my decisionmaking, becoming a good teacher within the neoliberal ideal. As Robson (2004) describes, adopting a particular discursive form of professionalism brings with it a series of strong assumptions, the traits and competencies that I have been so-compelled to define as my measures of worth and success as a teacher: Considering teacher professionalism as discourse facilitates a focus on the way subjects and objects are constituted in and through that discourse ... references to a wider discourse of professionalism, to the most attractive attributes traditionally associated with it, for example, can be discerned. (Robson et al., 2004, p. 185)

I therefore attempt to disentangle two closely bound threads of my vignette: I repeatedly make sense of my performance as a teacher relative to my more established co-workers and, in doing so, characterise the professional standing that I aspire to, simultaneously positioning myself within the hierarchy of my specialist institute and speaking to the "wider discourse of professionalism" (Robson et al., 2004, p. 185) that I continue to recognise to this day.

A discursive shift? Post-personalisation and confession

Despite working through the vignette towards a claim that "I was a good teacher", very little of this piece discusses anything related to actual classroom experiences or aspects of my pedagogy. Instead, it becomes quite clear that success in standardised assessments remains deeply important to my sense of personal fulfilment. In the latter half of the vignette, I return to emotive and dramatic language to reinforce the centrality of such measures, claiming students' examination results to be "a tangible, profound effect... a direct consequence of my actions as a teacher... life-altering on a very short timescale". Not only am I giving prominence to students' results as a measure of my own "skills as a pedagogue" but I go further in attaching this to a "sense of belonging... My results were on-par with other, more experienced teachers..." This statement in particular draws my attention to the emergence and foregrounding of my standing amongst colleagues as the dominant benchmark for evaluating and articulating all aspects of my professional worth; whether it is the breadth of my subject knowledge, the ability to respond to learners' inquiries, or the success of students on their end-ofprogramme examinations, all are understood in normative terms, relative to an idealised practitioner that is constructed within the professionalism discourse. Johnson (1997) refers to this as a "post personalist" way of framing my development as a teacher:

There is a shift from concerns about individual teacher development to a focus on the social relationships between S/subjects and the construction of discursive practices. A focus on teachers' work rather than on the teachers themselves shifts attention to different ways of doing, seeing, thinking about and valuing teaching. (Johnson, 1997, p. 816)

I am therefore disappointed that a vignette that initially seemed to describe my personal flourishing and belonging as a "good teacher" instead, under closer analysis, may also be

read as a confession that I began working life as an anxious, deficient novice, an aspiring neoliberal worker-teacher, and certainly falling far short of any semblance of the intellectual and critical educator that I have aspired to be in my later years.

"Confessing" and subject positions: survival, success, belonging

Trioano and Worthman (2019) summarise Fejes and Dahlstedt's three "characteristics of confession" (p. 265) that seem to operate within my writing, described as "a technology of self" (p. 265) which serve to further-establish my subject position over the last two chapters. I will work through each of them in turn as follows: "First, confession arises from an individual's willingness to acquiesce to existing power relations that form the subject an individual is confessing to be" (Worthman & Troiano, 2019, p. 265, citing Fejes and Dahlstedt, 2013). Well-established in the previous vignette, my only hope of "survival" was to adhere to the authority of the gatekeepers of my accreditation and employment as a teacher. However, within the aforementioned framing of socialisation into the profession of teaching, the most explicit and frequent signifiers of what constituted professional acceptance was my perception of colleagues surrounding me as a newly qualified practitioner. Therefore, despite my initial struggles as a trainee, my story has now shifted to a more conciliatory, accepting or even positively motivated tone, "belonging" within the power relations of the specialist institute and hierarchy of the mathematics department becoming the central aim of my endeavours. "Second, confession focuses on changing who one is, that is, on objectifying oneself as a subject in the making" (Worthman & Troiano, 2019, p. 265, citing Fejes and Dahlstedt, 2013). As with many of my other vignettes, it seems that in order to make sense of my journey, I must repeatedly position myself as an incomplete, inadequate, unfulfilled learner and teacher, that the process of becoming a better teacher is to make up for my deficit of subject knowledge, or to ensure that the exam results of my students do not fall below those of my colleagues. In common with previous stages of my story, I am centrally motivated to reach whatever success-benchmarks will allow progress to the next stage of study or employment, forever reliant on my perception of the external measures of worth that provide a sense of worth and success.

And third, confession is self-disclosure, or the revelation of one's inner being that is more than only admitting what needs to be done. It is admitting what one needs to be. Confession, as a first-person narration, reveals who the singular I is. It is explicitly autobiographical and revelatory. (Worthman & Troiano, 2019, p. 265, citing Fejes and Dahlstedt, 2013)

The quite spiritualist tone of Worthman & Toiano's writings prompt me to again ponder the purpose of this latest vignette. I am led to wonder if my writing not only to presents the image of the teacher that I aspire(d) to be but can also be representative of my acceptance and acknowledgement of the situation at-hand, that the only way I could be a good teacher (by remaining in employment as a teacher whatsoever) is to acquiesce to the demands and discourses of the surroundings that would validate me. Foregrounding the performance of my students, establishing my standing in the hierarchy of knowledgeable mathematicians in my department, these ideas become paramount. The previous chapter tells of a troubling, stressful period of adjustment to the demands of teaching, dramatically using the word "survive" to attempt to capture the feelings of duress and struggle. However, the closing theme of this piece is significantly different: I have pivoted back to thoughts of belonging, albeit in the newly found space of the teaching profession, quite different to the pure academia that I had envisaged years prior. Riley's text (2017) exploring the notion of belonging in schools – drawing on some of the seminal works of Bourdieu and others (Bourdieu, 1986; Bourdieu & Passeron, 1990) claims that:

Belonging matters to all of us... part of our basic needs... Belonging is being comfortable in yourself, who you are, and where you are... French anthropologist Pierre Bourdieu, whose work has helped build the foundations for thinking about these issues, distinguished between physical space, social space and 'habitus': the norms that guide behaviour and thinking. (Riley, 2017, pp. 28–29, citing Bourdieu, 1999)

Considering the types of spaces which might be thought of as surrounding an individual in such terms has therefore become an area of particular interest, directing me towards my next piece of writing and analysis, depicting a period a few years later into my career where events begin to challenge my understanding of belonging and avowed identity as "a good teacher".

Section 4: Reflecting on conflict and disillusionment as a teacher

Chapter 8: Becoming a statistics teacher

Introduction

In the second, lengthier vignette drawing on my time as a professional teacher, I begin to demonstrate my growing awareness and strategic navigation of the institutional arrangements and priorities of my employers. In a resurfacing of tensions between test-related performance and other potentialities, such as critical and multidisciplinary applications of statistics (Chapter 5), I begin to more actively and deliberatively engage with these ideas from my position as a teacher within the organisational structures of the specialist institute.

Commonalities to earlier experiences begin to be foregrounded in the vignette itself, not only in quite literal terms – recounting my own stifled hopes to study preuniversity statistics more extensively – but also in an apparent entrenchment of my deference to performance-related organisational arrangements. The reappearance of such familiar concerns while recognising their different forms in my shifting contexts will eventually contribute towards a thread of my second layer of analysis (Chapter 13): a facet of the variegated neoliberalism (Brenner et al., 2010) that I have experienced over the course of my stories, and my continual positioning as subject in the construction of my vignettes (Byrne, 2017; Leyva, 2019).

Vignette VI: Teaching statistics and gaming the system to do so, then losing "my" course

I often describe my teaching career in slightly cliched terms as an "emotional rollercoaster", a time when I felt a very close connection to pivotal moments in the lives of my students. The experience at the specialist institute was a high-stakes affair for most who enrolled: General Certificate of Secondary Education (GCSE) "resits" for those pursuing the arts and humanities – these qualifications were typically a requirement for entry to *any* university course, even where mathematics is not a central component – or the Advanced-Level Certificates (A-levels) for students with more scientific and technical aspirations. End-of-year examinations would decide the future direction of these young people's lives and frequently lead to tears of joy or despair.

I felt a heavy burden of responsibility for my students. Though not oppressive or onerous, this became an integral part of my identity as a teacher. For two years, five hours a week, thirty-or-so weeks per year, I would impart what I knew of mathematics and if the students failed, then *I had failed*.

This became particularly problematic on an emotional level when well-meaning students would pursue our heavily mathematical A-levels for which they did not really seem suited nor prepared for. This resonated with my own struggles with pure mathematics earlier in my life; the course simply *did not seem right* for some people. More striking still, I recall several students in the department achieving very highly on their applied modules – often decision mathematics or statistics – while finding the pure content overwhelming, leading to very poor end-of-year results overall.

This was all-too-close to my own experiences to be ignored. I imagined that if these students had the opportunity to focus on applied mathematics – say, statistics – instead of pure algebra then they would have a much better chance of success. A dream of teaching an entire A-level focused on statistics had laid at the back of my mind for years; being able to devote my time to re-learning and teaching a subject that I had an interest in seemed a wonderful prospect but memories of my own teacher's words rang in my mind: "I can do it... but it would be a lot of work" (Vignette II).

After several years of witnessing the frustration of hard-working students, followed by a poor Ofsted inspection (Ofsted⁴, n.d.) and a change of leadership at the specialist institute, improving our examination results became a higher-and-higher priority. As I noted in a portfolio of work for my masters-degree, prior to the introduction of stricter entry criteria for enrolment onto our mathematics course, in a single year we had several hundred students studying Mathematics but nearly a third failed to pass their examinations (Lahmar, 2011, p. 15).

Allowing keen but underqualified students to *try* advanced mathematics and then fail was no longer an option. The management of the specialist institute demanded greater assurances that a higher proportion of students in our department would ultimately succeed in passing their examinations. This made the A-level in Statistics seem like a more realistic prospect.

I began to construct and present a case for introducing A-level Statistics to the specialist institute as a viable alternative to Mathematics. This was the first time that I had ever needed to establish and articulate a clear position on why anybody *should* pursue this field of study. From the very beginning, I realised that I was acting strategically. I wrote an open letter to the lead staff of the

⁴ Reference omitted to maintain anonymity

institute, my department and other colleagues explaining my case which consisted of two main strands:

- Statistical skills are extremely useful, with numerous applications across the Life Sciences, Humanities and the Social Sciences. Many students at the specialist institute were pursuing careers in Psychology, Sociology, Sports Science, Biology, Geography and other fields where statistical analyses could be conducted.
- 2. Too many students who wanted to pursue some form of mathematical study found pure mathematics roughly two-thirds of the A-level Mathematics course far too challenging. Statistics was ultimately *an easier course* and students could be awarded a large proportion of the available marks for simply applying algorithms to datasets provided in the examinations. Students with limited algebra skills had a much better chance of passing the statistics qualification.

I continue to feel conflicted over this type of argument, and it is one that I have revisited and rewritten countless times in a range of contexts throughout my years as an educator. I have spent many years convincing myself, and others, that the first point – recognising the many genuine uses of statistical skills – is paramount to being an engaged learner and is what has kept me interested in statistics for so long. In an ideal sense, I wish to be seen as an intrinsically motivated, value-driven educator, as these are the figures that I have admired the most throughout my life.

However, I am also disappointed, despondent, resigned to the feeling that the second aspect of my proposal – more easily getting students to pass their examinations – is the only one that *really* matters to the world at large. This argument was born from my day-to-day life until that point, where hours of struggle and effort on the part of ourselves and students were ultimately reduced to an exam score. I will revisit my feelings of conflict later but, for now, **this argument worked.**

The following summer, I attended the first enrolment event at my specialist institute where I would "sell" my course to the new cohort of students. We would seek those who had applied for mathematics but had achieved the lowest grades on their GCSE examinations, the enrolees with similar profiles to students who had failed in the past, and direct them to study my alternative course that did not involve pure mathematics. This strategy was a resounding success: in the very first year of the course, only a very small number of students withdrew from the programme and *all* of the students who reached the end of the year – students who colleagues and I believed would have failed the A-level in Mathematics – passed their statistics exams, some even achieving

highly respectable "A" and "B" grades (Lahmar, 2012). I felt vindicated, justified in my direction, reassured that the A-level in Statistics was more than just a vanity project for my own interest.

Sadly though, I feel that the two-sided argument presented earlier extended to the teaching and learning on the course too. I would use a range of disciplinary perspectives and "real life" contexts for the statistical analyses we practised in lessons, conducting experiments and collecting primary data, but ultimately it was the algorithmic, repetitive aspects of the work that provided the majority of the available marks on the examinations. A limited, instrumental understanding of some of the core analyses was all that was needed to pass the test; simply memorising a set of procedures that could be re-used on a supplied set of data was easily sufficient for a pass-grade.

I was not entirely surprised though. While the statistics course provided me with a genuine sense of satisfaction and pride as a teacher, being able to lead a course on a subject that I believed to be valuable and interesting, it also reinforced a realisation that results-oriented education was becoming a more and more prominent feature of my existence. Nobody seemed to be interested in *how* I taught, or *who*, or *what*, only that my students were going to get acceptable results on their exams. I even feel that this sentiment was exhibited by some of the students themselves, where the potential for a good exam-performance far outweighed the more intrinsic value of the concepts and contexts we explored.

Another prominent memory of this period in my career is that I had again become *an outsider* in a sense. Nobody else in the department seemed to have the same level of interest in statistics and to some extent *I quite liked it that way*. It made me feel different, special and talented, as were my groups of students, quite distinct and separate from the rest of the mathematicians. However, this was inevitably a double-edged sword. I was quite aware that it was my own zealous advocacy that had created and sustained the course, and when I left the specialist institute a few years later the statistics programme was immediately withdrawn.

I have occasionally crossed paths with ex-students from the course who have *always* spoken positively about using statistics skills in their subsequent academic and professional pursuits. For some, the A-level in Statistics was their highest academic achievement in their time at the specialist institute and opened doors to universities, apprenticeships and careers. I am proud of this legacy, though I have accepted that these stories clearly matter little to anyone other than those students and myself.

As this chapter in my life came to a close, it provided a point of reflection that I have revisited many times over the years, giving rise to some of the substantive thoughts that have motivated

my pursuit of this thesis research: a confusing, conflicting series of events and a deep sense of injustice.

Up to this point, my experiences as a learner and teacher had instilled the belief that statistics is a valuable and respectable field of study in its own right, widely applicable to a range of disciplines and quite distinct from mathematics. I also felt resigned to a feeling that *none of this matters* in the world of schooling. Exam results are all that seem to count in the eyes of the management, Ofsted and even *the students*, anything else is secondary.

But this was the point of confusion. Surely in this respect statistics *did* meet the needs of the specialist institute: students *consistently* achieved highly on the course, with fewer than 5% of students in three consecutive cohorts failing outright (Lahmar, 2012). Clearly, a good set of exam results was a necessary but not sufficient condition for the course to have been sustained after my departure.

I also feel that the only reason that I, a young teacher with limited experience, was ever allowed to run an entirely new course at the specialist institute was because *nobody else wanted to do it*, a phenomenon that would have a deeply significant effect on my future career. I needed to be teaching something *different* to have the opportunity to do any of this, I was never going to outshine the established teachers of Mechanics or Pure Mathematics. I vividly recall colleagues referring to my course as "icky stats" because it seemed to be so far from the core interests of a pure mathematician: "*statistics is not mathematics*", I was constantly reminded.

But I was not completely oblivious, I recognised the strategic nature of my initial proposals and wanted the course to be my own. I developed a deep sense of ownership and responsibility above and beyond what I had grown used to. What I had previously experienced as "my" results at the end of each academic year for my mathematics classes was intensified: statistics was *my course*.

Much like my time becoming a teacher, this had been a further journey of "becoming" that I had not entirely foreseen. I was now a statistics teacher, a specialist. Paradoxically then, the very same niche appeal that I used to my personal advantage also led to the inevitable death of the course when I left. Some of the mathematics teachers that I was surrounded by had spent years reiterating how they did not feel statistics was interesting, relevant or within their teaching preferences or skillset. These teachers were certainly never going to invest the energy or time that I had – with no remuneration from the specialist institute whatsoever – in order to sustain a course that did not align with their personal priorities.

I feel that this reads as if I am languishing in an arrogant bitterness at this stage, and I do realise that the opportunity to teach the statistics course has had immeasurable benefits to my career in the longer-term. However, I still end this story with a sense of confusing injustice: statistics was a good course, my students were very successful. On a personal level, I had been able to strategically navigate my role, teaching a subject I enjoyed while also keeping the management happy, so I have asked myself ever since: Why did they drop the course? Why do so many people seem to dislike studying or teaching statistics?

I do not anticipate that these are easily answerable questions – in this thesis or elsewhere – but I have a strong desire to at least understand why I feel the way I do. It may be a more realistic aim therefore to ask why, as a statistician, have I felt like an outsider in so many contexts and how might I navigate my life from here?

Post-writing alterations

Characters have been fictionalised and some alterations made to context in-line with previous vignettes to enhance clarity and consistency for the reader without influencing the subsequent analysis.

Pragmatism, performativity and post-performativity

In this vignette, depicting a period several years into my teaching career, I begin to accept and operationalise the dominant discourse of performativity in my specialist institute to help guide and explain my actions, in a manner which Moore (2005) refers to as "Principled Pragmatism ... those cases wherein teachers adopt introduced changes into their existing practice ... deliberately and proactively... and are happy, in hindsight, to justify them within the wider contexts of their work" (A. Moore, 2005, p. 200). Though I allude to feelings of disappointment and compromise at the time, I am clearly depicting an alignment of my actions with a neoliberal ideology of teaching: "produc[ing] measurable teaching subjects, whose qualities are represented in categories of judgment" (Ball & Olmedo, 2013, p. 92). I have learned to characterise potential students in terms of their past performance, examined on a narrowly defined mathematics curriculum, identifying how they may not be suited to working with algebra in particular and therefore should be "exclude[d]... from access to mathematical knowledge" (Knijnik, 2002, p. 1). By taking a principled pragmatic approach, not only do I fail to challenge the specialist institute senior leaders' directive to immediately and substantially reduce the number of students attempting (and failing) the mathematics course but I reify this

institutional priority. This leads me to worry that "the performative culture in which teachers are regulated and inscribed, normalises these discursive practices as legitimate" (Alderton & Gifford, 2018, p. 62, citing Ball, 2003). Though I express disappointment in my acceptance of performance metrics as the only meaningful measure of worth in the context of my work, the coherence within the main body of the narrative serves to legitimise the generalisations I make about prospective students, and to justify decisions about the form and content of the curriculum they should be allowed to access.

Exploiting my learning as a neoliberal subject

As I wrote these vignettes in a roughly chronological order, I seem to have become more self-conscious about the timbre of my writing while also recognising the challenge of identifying a clear line of argumentation that might be presented in a linear, causal manner. This muddling of my interpretive and affective thinking along with attempts to document occurrences from my life-history seems to come to a head here, leading to a frustrated and angry tone to the piece, in a manner captured neatly by Larson:

I wanted the stories of my life to reflect critical events as I had experienced them. By bringing the complexities and confusions of these stories to words, I felt I could reveal a more complicated, but far more meaningful and personally authentic story. (Larson, 1997, p. 461)

This is of particular relevance where threads of this vignette make frequent use of my experiences as a learner to attempt to make sense of my direction in later life, sometimes more explicitly than others. For example, the overriding power of examination performance has become established as a feature of my writings, and now sits as my central measure of value as a teacher – not uncommon in contemporary teachers' narratives (Hardy, 2015) – and it is used to justify my actions within the organisational structures of the educational system that I have become so familiar with from my earliest years as a learner. Wilkins' depiction of the "post-performative" teacher (C. Wilkins, 2011, p. 389) resonates with my approach to working within school environments with some striking similarities to those I experienced as a pupil many years prior:

For the post-performative teacher, the 'improvement agenda', the remorseless focus on increasing... standards of attainment by pupils, **is a given**. It has increasingly dominated their own schooling, and so it is perhaps not surprising to see their relaxed approach to balancing accountability with autonomy. (Wilkins, 2011, p. 405, my emphasis)

Though my writing is not overtly "relaxed" – I describe feeling ill-at-ease with some of the compromises and eventualities depicted in this vignette – my argument nevertheless

depends on a consciousness of my strategic instrumentalism, attempting to perform inline with institutional expectations while maintaining a sense of agency. From my negotiations with the specialist institute to allow me to run the statistics course, to my pedagogical approach favouring algorithmic over conceptual learning, I undertake deliberate bargaining in a manner reminiscent of negotiating and sidestepping educational challenges earlier in my life. I seem not only comfortable but well-prepared to sell the statistics course to the specialist institute management in terms I anticipate they will respond to positively: as a way of improving performance metrics. I similarly promoted the course to prospective students in terms that would have appealed to myself as a learner: as a way of obtaining a mathematical-sounding qualification which holds currency with higher education institutions. I therefore recognise how my actions and my writings not only speak to my position within the immediate surroundings of my specialist institute, but to the wider landscape of neoliberal governance and the power of educational institutions to reproduce and reinforce these mechanisms: "teachers and the education system [which] form part of the 'ideological state apparatus', whose role it is to generate and install in individuals the dominant system of values and ideas" (Harvie, 2006, p. 2, citing Althusser, 1972).

Though I am eventually troubled by the abandonment of my programme as I departed the specialist institute, this seems to be primarily due to a conflict with my established performance-oriented reasoning that had set me in such good stead up to this point – the statistics students did perform well on the programme – with a lingering disquiet rather than any sort of resistance to the principles of such a regime. As Türken et al. (2016) suggest is typical in writings related to personal growth and development in the neoliberal paradigm: "there is no observable resistance to subject positions offered within these discourses" (Türken et al., 2016, p. 32). Having recognised my acceptance and utilisation of the dominant discourse of the specialist institute management, my feelings of disappointment underpinning much of the vignette therefore seem somewhat inevitable, arising from tensions between my strategic negotiation of the situation to introduce the statistics course while also wishing that my work could somehow be more substantively fulfilling, of some value beyond examination results alone.

The groundwork for my growing concerns and confusion can be seen in the reappearance of my narrative construction of professional identity (D. Hall & McGinity,

2015) where I claim a position as niche-expert in statistics and identify the programme of study itself as "my course", describing myself as "a statistics teacher" in a manner that I clearly start to enjoy. I am reminded how "teaching is not just a technical job; rather, teachers invest their 'selves' into their work" (Nichols et al., 2017, p. 406) and thus I establish a risky, personal attachment to the pursuit of statistics teaching from the outset. These features build from my longstanding history of learning statistics and being challenged by personal failures in mathematics, and sit alongside performance-oriented schooling as the framing for the argument I presented to my employers. I naively hoped to exploit the New Public Management principles and discourses (D. Hall & McGinity, 2015; Lorenz, 2012; Teo, 2018; Tolofari, 2005) of my specialist institute – being an accountable director for this new course, providing a low-cost high-gain strategy for improving our marketability and performance (Tolofari, 2005) - while attempting to cling on to the more positive experiences from my time as a student, feeling that statistics can be inherently interesting, useful, even exciting. On re-reading my vignette, it seems obvious that such a compromise cannot ultimately lead to an authentic fulfilment on my terms when the very core of the institution is driven by performance-oriented principles. Moore and Clarke (2016) utilise Berlant's (2011) notion of "cruel optimism" in a way that seems to capture a central contradiction of my narrative, my "attachment to professionalism in an era of performativity" (p. 666):

Put simply, a relationship of cruel optimism involves situations of attachment to hopes and aspirations in which not only are the latter likely to remain unfulfilled, but the very sustaining of the attachment itself has negative, constraining effects in relation to one's life and development. (A. Moore & Clarke, 2016, p. 672)

As much as I claimed to deliberately exploit my own utilitarian worth as a productive worker ("I could meet a clear need at the specialist institute"), thus allowing me to teach the statistics course, the very same idea operated to limit the possibilities for my fulfilment as a teacher, recognising that anything more would never be valued by the specialist institute.

Chapter 9: Leaving teaching

Introduction

In the final vignette of this section, and the most distressing (fictionalised) account of my career as a pre-university teacher, I depict a troubling experience which necessitates a deep re-evaluation of my principles and sense of fulfilment as an educator. As with my other chapters, this vignette was created before any formal process of analysis but I was nevertheless inspired by some of earliest readings which led to the direction of my study (e.g. Ball, 2003) to directly tackle the powerfully emotive, affective dimensions of my reflections.

Using fictional characters, this vignette projects beyond my own personal experience to consider the potentially significant personal harms which may arise from noncompliance or resistance within the frame of neoliberal new public management (Lorenz, 2012; Tolofari, 2005) and contributing to the emergence of my thinking on neoliberalism as a hegemonic rationality (A. Moore & Clarke, 2016; Perryman, 2006; C. Wilkins, 2011), even though I would not have recognised the term itself until later (Section 5, Chapter 10 onwards).

Vignette VII: Becoming an unskilled worker and the inescapable tsunami of "performativity"; sink, swim or flee

"Being" a teacher has become a far more important part of my life than I had ever intended or desired. With hindsight, I feel that even within my research I seek to convince myself and others that such an utter investment of body and soul is a desirable, noble trait for a teacher. *If you do not really care about what you are doing, then how can you be any good at it?*

In my experience, a deep dedication has been a necessary but not sufficient condition to be able to survive within the teaching profession. The mechanisms by which teachers are judged frustrates and angers me in a fierce, visceral way for their ignorance of an individuals' devotion to their students; while I *love* the act and art of teaching, I *despise* the oppressive organisational and accountability structures that surround it. I question if it is morally acceptable that a teacher can be judged to be inadequate by a manager who is not in an active teaching role themselves, or by external bodies with arcane and obfuscated priorities such as Ofsted when *learning* is about so much more than one observed lesson or one exam result. There are a few incidents from the later years of my teaching career that, while I cannot claim them to be the *root* of my thoughts, I feel adequately capture a manifestation of some of these feelings. Specifically, I recall witnessing the oppression faced by experienced, caring teachers alongside the success of those with more superficial and self-serving tendencies.

Within four years of the start of my career, the working atmosphere of my specialist institute and department had deteriorated dramatically. The "mini university" that I had gleefully become a part of (Vignette IV) had turned into a factory, a production-line. We were simply worker-drones, *delivering* the prescribed curriculum and if we did not meet our quota of good exam results, then we were failing at our job.

One of the older, more experienced colleagues in the department – Adrian [fictional] – was the first to fall victim to the new regime of oversight and performativity. In my eyes, he was a dedicated, professional and highly creative teacher. He would spend as many hours as the rest of us supporting students, coming in during holidays and weekends to run revision days, spending hour-upon-hour in the support room, painstakingly working through questions with his students, collaborating with colleagues, experimenting with creative resources to introduce mathematical concepts in novel ways. None of it mattered.

Another colleague, Rick [fictional], was quite a different character to most in my department. He rarely had a positive word to say about his students, often dismissing them as clingy and irritating. Rick would never show up for our revision days, or "breakfast club" mornings before exams. It seemed as though his entire working life was oriented to prioritise only *what would be noticed* by the management and nothing more.

In one series of exams, a handful of students in Adrian's classes did not achieve their target-grades, placing his average results just slightly, but noticeably, lower than the rest of the department. The actions that followed were swift, devastating and traumatic to witness. Immediate close monitoring and "mentoring" from a member of senior management, leading to almost daily observation of his lessons, sometimes without warning, and demands to alter numerous aspects of his teaching style to become more efficient and tightly bound to the style and content of upcoming assessments.

A few weeks later, all of the teachers in the mathematics department were due to be observed and assessed under the routine regime of performance-management at the institute. Rick, having something of a reputation for never staying at work for even a minute beyond the end of the day, was all-of-a-sudden a hive of activity, laminating every resource in sight, pouring over a handful of lesson-plans for hours – as we all felt pressured to – ready for our up-coming inspection.

As a close-knit department, we had often visited each other's classrooms and could see first-hand that there were lots of similarities in how each of us taught. Neither Adrian nor Rick were the most popular of the teachers – both could have a slightly aloof, authoritarian manner with their students at times – but they were otherwise broadly similar in-person. Of course, I do not know the exact detail of their class' results, nor the nuances of their observed lessons, but I cannot find any way to justify the events that followed.

The pressure on Adrian was overwhelming to the point that he would sit at his desk in our shared office, alternating between a thousand-yard stare and floods of tears, repeating over-and-over again: "Why won't they just let me teach? I just want to be left alone to get on and teach." Towards the end of the year, a routine developed. Adrian would become more and more upset as the start of his lessons neared, so either I or a colleague would offer to teach the class while another would comfort him. This went on for month-after-month until he could take no more. He resigned without seeking an alternative post, bringing his career as a teacher to an end.

Rick, meanwhile, went back to his uncaring, minimum-effort approach as soon as the inspection was over. He had met the expectations of the short-sighted management team and was free to go about his business in whatever way he saw fit.

Watching these circumstances play out had a profound, jarring effect on me, and I still feel a burning anger each time I recall these events. It was clear that it did not matter how much my colleagues and I *cared* about our work, our teaching, or our classes. None of this was of any consequence if even a few students failed to achieve their assigned target-grades. "The Management" was only interested in cutting costs and maximising "success" on the metrics that happen to be in-vogue at any given moment. Teachers were simply a human resource, an expense, nothing more, a phenomenon that I have recognised in countless educational institutions ever since. Even more frustrating was the casual indifference of Rick, strategic to the extreme, with not even any pretence of a genuine, emotional investment in his classes, yet he was held up as "successful", even "outstanding" in the moments that would be noticed by the management.

Adrian's departure was the beginning of the end for the rest of us. Being able to "care" about what we were doing was central to our lives as teachers and it was therefore impossible for us to remain at this specialist institute that demanded exam-results at any cost. Time and funding for our support activities was rapidly eroded, the working hours and conditions at the institute were

altered so we would teach more lessons with only fifty minutes of "free-time" (when we would usually sit and support students) each week. Even our holiday-time was renamed to "preparation for teaching", a symbolic gesture by a cynical, oppressive human resources machine.

As I find myself retelling on a regular basis, by the end of the next year, all but one of the teachers in our large department had departed, myself included. To this day, I claim that this is *because* we were good teachers, *because* we believed that such a performance-oriented institution was incompatible with our values as educators. Although I have been very fortunate in my career since then, I continue to recognise a sense of loss and injustice over the events of that final year. It was more jarring and significant than simply leaving a group of colleagues, friends that I had worked alongside for my entire professional career. **The space that we had shared – a community of deeply caring and highly skilled and somewhat autonomous teachers – completely ceased to exist, was not** *allowed* **to exist, as it was incompatible with what the specialist institute had become.**

Analysis: "Leaving" teaching

Though this predominantly negative piece depicts the upsetting end of my career as a pre-university teacher, the narrative once again serves to speak to professional qualities that I hold in high esteem and how these seemed to have little influence in securing continued "success" or even employment at my specialist institute. However, unlike my earlier writings, I have turned to the construction of distinct characters as a device for not only illustrating traits of alternative, opposing models of professionalism, but also as a direct act of othering within the writing. While Krumer-Nevo and Sidi (2012) suggest that such othering in the narrative can have the potential to be unnecessarily damaging to participant-relations in social research, their reasoning aligns the very purpose of my characterisation of Adrian and Rick here: "We cannot find anything of ourselves in descriptions that are based on these mechanisms—because the one who is described is our antipode, the Other, someone we do not want to be and someone we never will be" (Krumer-Nevo & Sidi, 2012, p. 300). Each of the characters therefore seems to depict different facets of the complex, challenging space I found myself in at the end of my career, yet they all capture deleterious traits or eventualities that I hoped to avoid for myself. I had seen the emotional upheaval experienced by Adrian when he failed to meet the exacting performance-requirements of the specialist institute yet, alongside my colleagues, I refused to be drawn in to the "acts of fabrication" (Ball, 2003, p. 225) Rick was so ready to embrace in order to survive within performance-management regime of the specialist institute. As part of my re-reading, I have therefore identified some of the common and differentiating characteristics of each case, though I would remind the reader that these are presented and analysed as a device for exploring my thinking through narrative expression (Netolicky, 2015) rather than claiming to be a record of any other individuals' specific experiences.

The story of these two teachers is broadly framed as an injustice caused by an institution which fails to adequately recognise the qualities that I have been gradually building into my thinking around "good" teaching. Crucially, though the last few chapters have explored several dimensions of my experience as a teacher such as subjectknowledge competences and supporting learners on an individual basis, "none of it mattered" in relation to the central positioning of standardised testing. The implications of this are captured by the depiction of an imperfect but hard-working teacher, Adrian (fictionalised), who suffered devastating emotional consequences for underperformance. This upsetting turn-of-events is made even more galling by the contrasting image of a more selfish and strategic individual, Rick (also fictionalised), who seems to be rewarded and even held up as a model of "outstanding" teaching (reminiscent of contemporary national school inspections terminology, e.g. Office for Standards in Education, Children's Services and Skills, 2019). As Ball neatly summarises: "The ethical practices of teachers and managers are a second order casualty in all of this. Effectivity rather than honesty is most valued in a performative regime" (Ball, 2003, p. 226). In hindsight, denigrating a teacher for strategic compliance is perhaps an odd turn for the thesis given my earlier reliance on such mechanisms for guiding my own life, yet here, placing such actions in the other, it becomes easier for me to judge such an approach as being inappropriate within the context of teaching.

Becoming troubled by measures and conceptualisations of "good" teaching

In recognising my narrative othering of characters and hence distancing myself from certain characteristics, I notice further shifts in my espoused interests and priorities as a teacher, shifts that relate to broader and more persistent orientations towards the role of quantitative measures and reductive models for directing and constraining my work while conflicting with my personal preferences for making sense of my experiences. Where in my earlier writings I repeatedly recognised tangible, quantified measures of performance as my primary guide through academic life, I have become far more emotionally conflicted about such an approach. That is not to say that I had been able to free myself from the dominant role of quantitative performance-appraisal in my professional roles, then or since. I am reminded by Yuan & Lee's work (2016) with newly qualified teachers that, in the background to this upsetting and challenging time, I was still performing in terms that would appeal to the expectations of my employers. The success of my students on their examinations was a desirable outcome for all concerned, yet at this stage of my writing I have become more conscious of a shift away from viewing such results as the sole source of affirmation I had relied upon for my own sense of fulfilment. Ball's exploration of neoliberal "performativity" in education therefore speaks to the "complex and powerful relationships between ... [performance] indicators and management systems and teacher identity and professionalism" (2016, p. 1052), resonating with the degree to which the events of this vignette seem to strike so deeply into my personal feelings about identifying as a good teacher. Speaking of one young practitioner, Yuan & Lee similarly foreground emotional influences on the construction of a professional identity, and the potentially paradoxical role of student-performance, noting that:

the positive emotions derived from his students' progress and recognition contributed to his teacher identity. However, due to the constraints imposed by ... the school context, his negative emotions gradually escalated, posing severe impediments to his teacher identity. (Yuan & Lee, 2016, p. 819)

To summarise, at no point in my writings have I suggested that I had not able to achieve the requisite examinations-performance with my classes, quite the contrary in fact, but I am reminded by Ball that the "possibility of retaining commitment to non-performative values and practices" (2003, p. 225) along with my colleagues is in itself a sign of relative privilege and strength. Both Rick and Adrian are positioned in inferior roles in the narrative, prioritising the narrowed demands of the specialist institute over more human, ethical qualities or being crushed for being unable or unwilling to do so, respectively. For my part, witnessing the disintegration of my department seems to have concretised and expanded my conceptualisation of good teaching to include repeated refrains of "care" for my students and colleagues. I am therefore drawn to van Manen's depiction of the pedagogue as a way of capturing dimensions of my experience that have emerged as increasingly important and are foregrounded in the narrative:

A pedagogue is an educator (teacher, counselor, administrator, etc.) who feels addressed by the children, who understands children in a caring way, and who has a personal

commitment and interest in children's education and their growth towards mature adulthood. (van Manen, 1994, p. 139)

In line with my reflections on reductive models and measures above, van Manen goes on to highlight how a teacher might be highly knowledgeable and competent in terms that have become dominant in western teacher education discourse and the teacher-standard frameworks of my time (Office for Standards in Education, Children's Services and Skills, 2019; Training and Development Agency for Schools, 2007; Tuinamuana, 2011) without any adherence to the interpersonal commitments of his so-called pedagogue. Taking Shulman's framework for teacher knowledge as an example (Carlsen, 1999; Shulman, 1986; van Manen, 1994) a teacher might demonstrate a wealth of curricular knowledge and a range of teaching strategies for their disciplinary specialism without ever undertaking a "personal commitment" (1994, p. 129) to their learners. van Manen therefore neatly summarises the problem in a manner that I am inclined to agree with: "Shulman's teachers might be experts at what he calls 'pedagogical reasoning' but they might nevertheless lack the qualities that are essential to good teaching" (1994, p. 142), as is the case with Rick character, poised to perform but well outside my depiction of a more personally invested "good" teacher. Hall-Kenyon and Rosborough in their study of early years pedagogies, describe the personal commitment that I place such value in as teachers' "ways of being with and for" their learners (Hall-Kenyon & Rosborough, 2017, p. 328, emphasis in original), standing in stark contrast to my depiction of Rick's seemingly more egocentric motivations, overtly dismissing and denigrating learners who seek their support. In drawing this chapter of my life to a close then, the unsettling, deeply infuriating, albeit fictionalised, events explored in this vignette simultaneously highlight a reshaping and assertion of my personal priorities and values while also recognising how these are misaligned and conflictual with those of some other practitioners, the specialist institute and perhaps even contemporary neoliberal discourses of education in the broadest possible sense (Ball, 2016; Ball & Olmedo, 2013; Golden, 2018; Kostogriz, 2012; Paltrinieri, 2017).

At this point of my analysis I am struck by a few realisations. First, and somewhat coincidentally, my earliest attempts at this doctoral study heavily utilised Shulman's models of teacher-knowledge (Lahmar, 2015; Shulman, 1986). These were models that I found appealing for their clarity and definable, measurable characteristics, aligning with my earlier intentions for this study which centred on quantitative measurement. Yet it is

precisely for these reasons that such an approach failed to adequately capture aspects of my experience as a teacher that I felt were not readily conceptualised yet remained deeply, personally important. Affective, emotional and interpersonal aspects of my teaching career have been so unexpectedly, profoundly influential on my personal and professional life that models like Shulman's do not seem fit-for-purpose and the inherently reductive nature of such models could be deleterious in their foregrounding of skills and competences over and above the human, moral and social aspects of being a teacher (Ball, 2003). van Manen too acknowledges "a certain sensibility that places the informal vitality of the pedagogical relation in tension with the general thrust to rationalise all aspects of educational institutions" (1994, p. 149), and it is this very tension that I feel is again immanent to the narrative depiction of this period in my life. Much like the disconcerting, transformative pressure of my year as a student teacher, the period depicted in this vignette is another significant moment of realisation that my existing frameworks for understanding and navigating my academic and professional endeavours were inadequate, in this case falling short of being able to explain the "pains and pleasures" of the "pedagogical relation" that had become central to my experience as a teacher (van Manen, 1994, p. 143, quoting Nohl, 1982, p. 132).

Over the course of my studies, I have been concerned that my writings may come across as unnecessarily self-indulgent, speaking so intensely about one's professional life in powerfully dramatic terms that other narrative researchers would apply to extremely difficult subject-matter like bereavement (e.g. Bauer & Bonanno, 2001) or life-altering physical trauma (e.g. Etherington, 2003). However, I also feel that the strength of emotion embedded in this most recent vignette reflects the extent to which these upsetting events heightened my awareness of, and reliance upon, caring pedagogical relations as being central to my personal fulfilment as a teacher. As I briefly introduced in my earlier review of the literature, Curtis (2013) employs a Heideggerian approach to explain that circumstances such as those I have depicted, which undermine the frames of reference that I have (or had previously) relied upon for making sense of my experiences and for navigating my professional, personal and academic life, can indeed lead to feelings of profound personal crisis:

We are so comfortable with the tools we use, [Heidegger] argues, that we remain largely unaware of them as long as they do what they are assigned to do, only bursting into our consciousness when they break down ... our world just seems to 'fall apart'... the

malfunctioning of even a minor point of reference can lead beyond the problematising of the task at hand to the entire world manifesting itself as something obtrusive, overburdening and even intolerable. (Curtis, 2013, p. 23, citing Heidegger, 1996)

These last few vignettes then, foregrounding the control of teachers and their work in narrow, metricised terms has therefore become not only an inadequate way of providing me with a sense of personal fulfilment but the very nature of this recognition is in itself a notable shift in the direction of the writing and my concerns about the work of teachers and educational institutions. That the kind of reasoning I had relied upon for decades for making sense of my life is the very phenomenon that had become so destructive to myself and others is deeply disconcerting and is represented in the tone of the piece as I refer to feelings of "loss and injustice". This therefore leads me to ponder much broader, fundamental questions about my values and priorities as a person and why I find myself in conflict with an education system that seems to very closely resemble that of my youth.

Such disquiet has eventually become a strong motivation for my writings and for this thesis more broadly. Taking Curtis' reasoning a stage further, I recognise that my reflections on the eventual discontinuation of the A-level Statistics course in spite of good results-performance (in the previous chapter), or how the organisational structures of my specialist institute eliminated spaces where I and my like-minded colleagues could nurture and experience our most valued pedagogical forms, direct me to reconsider my fundamental beliefs because they arise from such difficult and upsetting times (2013). Thus, these more recent stories not only document particularly critical periods in my life but also serve to evaluate and articulate my evolving beliefs about good teaching, my principles as an educator, and even begin to query my epistemological stance towards statistical measurement and inference as problematic but nevertheless dominant modes of reasoning.

Conflict and contradiction as a trigger for reflecting on epistemological implications

I can recognise the tensions emerging from the last two chapters as having implications not only for my understanding of legitimate knowledge pertaining to the quality of teachers' work, but also a need to begin questioning assumptions embedded within my specialist discipline of statistics. In my writings for this study, I continually position quantitative measures – usually derived from standardised assessments like GCSE or A-level examinations – as a dominant way of evaluating and communicating my educational and professional achievements (e.g. "My results were on-par with other,

more experienced teachers", Chapter 6). The over-riding power of these typically quantitative metrics, as enforced by the managerial mechanisms of my specialist institute and previous institutions, lend such forms of knowledge an undue degree of legitimacy (Maton, 2014) despite being contradicted or challenged by some of my subsequent actions, thinking and writings.

I have grown fond of thinking and talking critically of statistics, self-identifying as a specialist and embracing - for myself and for the students on my A-level programme a view that statistics as a field of study should be a valuable pursuit in its own right, distinct from the more mainstream mathematics curricula for its treatment of critical statistical literacy. In particular the right or, I would suggest, the duty of a learner or practitioner of statistics to reflect upon what constitutes credible, meaningful assertions on the basis of statistical evidence, and to query the foundational aspects of the process leading to such claims is strikingly distinct from the rigid, algorithmic structures and positivist epistemological tradition of pure mathematics and the natural sciences (Frankenstein, 1983). Frustratingly though, I notice in my writings how I am consistently compelled to defer to much more instrumental purposes and simplistic ends as an underpinning, seemingly unescapable dimension to my story. For example, I emphasise how the A-level in Statistics that I directed (previous chapter) seemed to be a success in employer-pleasing terms, with the vast majority of students passing their exams. I am therefore concerned by how strongly influential governance structures seem to be in directing my reasoning and expression in a way that that undermines my desire to challenge the epistemological implications of reductive performance-measurement in education: "Conditioned for a receptivity to governance-by-numbers, to the power of a solo score, one is held to account by a technicist mathematics that trumps the complexity of rounded experience" (Ocean & Skourdoumbis, 2015, p. 444).

Returning to Ball's reasoning that my adherence to the performance expectations of my specialist institute might provide a degree of freedom to explore richer nuances of statistical literacy (2003, 2016) it is therefore quite disappointing that, in a manner quite reminiscent of my earlier experiences as a learner, I continually foreground the procedural, algorithmic aspects of the statistics programme which could be easily memorised and applied by the students to get a good enough grade to pass as taking ultimate precedence. Moving into this most recent vignette, I recognise a persistence of similar contradictions in the measurement of teachers' performance, the governance of my practice by reductive quantitative measures simultaneously serving me in a way I had become accustomed to from the earliest stages of my education while also being a negative, constraining force on growth and autonomy as a professional. The stories of Adrian and Rick highlight the dominant measures that the specialist institute used to assess and manage the performance of teachers: inspection regimes and an ultimate deference to students' performance in examinations.

They are unable to resist the brutal transference of the prevailing school culture – its neoliberal ideologies and practices. Relying on a repertoire of strategies, ranging from soft authoritarian socialisation to coercive performance appraising to threatening to punish, this dominating institutional culture imperceptibly and incessantly moulds the ... teacher into its accepted norm of behaviour, of its definition of professionalism. (Loh & Hu, 2014, p. 19)

In this vignette, Adrian grew evermore distressed by the forceful attempts of the management's "repertoire of strategies" to bring his work into alignment with their priorities (Loh & Hu, 2014, p. 19, above), whereas Rick is instead left relatively free of such constraints and harms, having been deemed to be operating safely within institutional norms and thus reinforcing the legitimacy of the assessment measures. My final point for consideration in this analysis is therefore captured in the concluding sentences to the vignette: in depicting the departure of myself and colleagues from the institute, describing my personal beliefs and measures of worth that I placed in my practices as "incompatible" with those of my employers, my own knowledge and experience is rendered illegitimate amongst the power-structures at play. My colleagues and I are dismissed, are "no longer allowed to exist" while the specialist institute, its managerial structures and the dominance of quantitative performance-appraisal remains, undamaged and with its dominating, unquestionable power ultimately affirmed within my writings.

Conceptualising mathematical measurement and statistical truth

To conclude then, I am led to contemplate the implications of my positioning of the specialist institute in such a powerful role and possible implications for my sense-making as a practitioner but also as a statistician. Ocean & Skourdoumbis (2015), examining the power of audit culture in higher education for dominating the professional lives of researchers and educators, neatly identify how the aforementioned managerial

mechanisms rely upon and reinforce an extremely anti-critical, reductive epistemological view on the possibilities and meanings of quantitative measurement:

Overwhelmed and silent, lacking the education and the confidence needed to engage mathematically, faculty managers and staff do not critique the numbers 'in the moment' that measure, judge, demote and dismiss. In effect, they process the person trial-balance style, accounting for everything yet sensing nothing. (Ocean & Skourdoumbis, 2015, p. 450)

This leads me to a broader point of reflection around not only the powerful managerial and governance structures that I have been surrounded and constrained by, but some of the formative influences on my epistemological perspective as it pertains to statistics and the validity of numerical measurement in general. Maton's "Legitimation Code Theory" combines the work of Bourdieu and Bernstein which, "when applied to knowledge practices... highlight questions of what can be legitimately described as knowledge (epistemic relations) and who can claim to be a legitimate knower (social relations)" (Maton, 2014, p. 29). While a more complete analysis of the Bourdieusian fields that I am operating within is beyond the scope of this thesis and – more importantly – the narrative that I have to-hand, this does raise the question of how my feelings around legitimate knowledges and successful working practices have become intertwined.

I feel it is reasonable to begin to believe that the pervasive dualistic-positivism that has been embedded in the application of statistics in the policy and practice of schooling – as I have depicted and experienced – may have at least some influence on the personal epistemology of teachers and students in a broader sense. This is a thread that I will revisit several times before the end of this thesis. Even those children who seem to thrive on getting "good" results – a sentiment that I vividly recall from my own school-years – may be focusing on the label or metric as a powerfully-definitive goal in itself; "The individual in contemporary society is not so much described by tests as constructed by them" (Hanson, 1994 as quoted by Stobart, 2008, p. 1). Continuing this line of reasoning, I notice that throughout my writings so far I have continually placed checkpoints and benchmarks of a quantitative nature – educational assessments of myself and my pupils – as possibly navigable in a strategic manner but ultimately unquestionable.

Section 5: Reflections on my time as a teacher-educator Chapter 10: Becoming a teacher educator

Introduction

After dwelling on the end of my career as a schoolteacher, my attention now turns to the most recent chapter in my professional life as a teacher educator, training teachers of mathematics at a Higher Education Institution (HEI) in the North of England. Once again, my shift of context presents an opportunity to recognise the transposition of my evolving understanding of neoliberalism and its variegated form (Brenner et al., 2010), finding myself troubled by how clearly my own role involves inducting others into performance-oriented governing structures with a strongly neoliberal timbre (Furlong, 2013; Nairn & Higgins, 2011; Sleeter, 2008; Tuck, 2013). Now occupying a post in an academic setting, my exposure to broader debates becomes apparent in my usage of neoliberalism as a specific descriptor within the vignette itself.

Vignette VIII: Chased by or becoming the enemy? The bottom-line of

"successful" teacher education

On my departure from teaching at the specialist institute (SI), I moved into a new role, training secondary mathematics teachers on an ITE course at a Higher Education Institution (HEI). In many ways, I have found myself reliving the experiences of my formative years as a teacher: another huge leap forward in my career and another transformative yet frustrating series of events. Yet again, I feel much of the emotional turmoil that has defined so many of the chapters of my life up to this point, a constant sense of dissonance and conflict between my personal values and external influences that dictate my actions.

In a reductive way, I sometimes feel as though my job is nothing more than facilitating students' development towards being judged as "Good" or "Outstanding" across the areas of practice decreed by "The Teachers' Standards" (Department for Education, 2011). In common with my approach as a young schoolteacher, my early priorities in-post have been to meet the expectations placed upon me by others, securing my position as a *teacher educator* by satisfying my employers.

But this time around I was already jaded, the disappointing end to my own school-teaching career and a sense of injustice originating from my thoughts around being a statistician that was judged *inaccurately* as an underperforming mathematician had left obvious scars. The central positioning of externally-imposed summative assessment in my new role very quickly led me to again feel conflicted, unsteady and anxious. My fear of failure, though ever-present, is not as easily dealt with now that I cannot bring myself to be blindly led by assessment regimes that I do not truly believe in.

What does it mean to fail here?

This is a question that I cannot easily answer but is a cause for continual consternation. The general principles, structure and implementation of "Teachers' **Standards**" – dictated and ruthlessly enforced by inspection regimes and management structures – irks me. Nowhere in this list of competencies does it seem to be a requirement that a teacher really *cares* about what they are doing, to be truly invested in "being" a good teacher. Furthermore, teachers need not be independent thinkers, critical appraisers of evidence, to be able to determine and act on what *they feel is best* for the pupils in their care. Nor are teachers allowed to be respected as individual human-beings, with interests, strengths and dare I say *weaknesses*. Instead, **teachers are simply labourers without agency, fulfilling a series of tasks, satisfying a business need; we are human resources to be** *used***.**

Shamefully, I notice how my annoyance extends to some of the teachers that I meet in schools and even to my own students. As much as I have faith and strength in my convictions about what a teacher *should* be, Rick [fictionalised character, chapter 9] continues to haunt me. So many "successful" teachers seem to be "Children of the Market" (Keddie, 2016, p. 108); the neoliberal ideal *is their ideal*, or perhaps this is just what they are forced to become.

Continuing a cynical line of thought, I sometimes feel that for my student teachers to survive the assessment regimes of the ITE course:

- their observed lessons must be well-planned and resourced,
- most of their pupils must be seen to be attentive and engaged,
- the student needs to produce a large amount of documentary evidence that gives the impression that they are evaluating their lessons, attending mentoring meetings, assessing their pupils in some way and so on,
- the student acts in line with (*but does not critically question*) school policies and the feedback they receive from hosting staff.

I do not think this superficiality is by design, nor do I feel that these student teachers are being disingenuous with such a prioritisation: present ITE assessment processes are quite similar to what

I experienced in my own career as a teacher and what I tend to see in the schools that I visit, so there is some *sense* to being able and willing to perform when it will be most obviously noticed. Furthermore, as much as I decry prioritising these *observable* activities over a genuine investment in "being" a good teacher, it would be remiss of me to deny that I also feel controlled by externally-imposed policies and assessment practices. I disagree deeply with the ways by which I am judged as a teacher, but I must conform if I wish to retain my job, and I cannot entirely deny the need for my students to be able to do the same *when it matters*.

Nevertheless, I am disappointed when students' talk and actions might suggest that they have settled on *observable* activities as the ultimate end-goal for their efforts. I worry for students taking strategic, risk-averse actions – as I had done in other chapters of my life – such as opting out of academic study to "focus on their teaching" or requesting more precise dictation of their activities rather than desiring any autonomy in their decision-making. I remain frustrated by those students and teachers who do not seem to seek *something more*, a true investment of self, a human-ethical orientation. But then, is it for me to decide *how* students should cope with the demands of being a teacher within the contemporary system? Surely, I am just another cog in the machine.

This all troubles me deeply yet I remain resolute: I was a good teacher, I am a good teacher, I know what a good teacher should be. I honestly want my students to become good teachers, teachers I can be proud of and who can be proud of themselves, teachers who value research, academia, independent learning and who are therefore well-informed and can adapt their practice when the next change of policy comes around. This is not my job though. Instead, I must do whatever it takes to ensure that all my students meet "the standards", conforming to the current frameworks. Worse still, this is often the most that I feel able to achieve, there is no time or space to do anything more.

I try to reconcile the situation by manoeuvring, twisting, reframing many of the assessable activities so they may not *all* be superficial goals within themselves. I seek to *make* these expectations a more meaningful, integrated part of students' thinking rather than tokenistic gestures. I exploit the slightly freer space of an HEI, away from the bustling school and its managers, to explore and challenge what it really means to "teach", to draw on students' own research and that of established academics – a greater body of knowledge than any nationally-dictated curriculum could ever be – to encourage students to persist, to be critical, to believe in the virtue of justified, meaningful, well-informed actions as thoughtful, reflective practitioners.

It is not enough though. I feel powerless, angrily impotent in these *little acts of rebellion* when the surroundings of the school and "standards" take such an overwhelming precedence. It feels reminiscent of why I left teaching all those years ago, unable to live with being forced into a position where we were not allowed any sense of agency, nor any respect as independent, experienced and knowledgeable educators. I now find myself in a strikingly familiar space, again alongside like-minded colleagues in a romanticised struggle against oppressive voices and shallow, mercenary thinking.

I feel compelled to also acknowledge how I am complicit in all of this. I feel ashamedly hypocritical knowing that I am earning a living by inculcating others into the very system that I was displaced from and remain concerned by. I feel privileged yet guilty to have some distance from the oppressive, controlling spaces that gave rise to the difficult stories I have presented so far, to have at least a little freedom to be critical of what seems to be the well-established neoliberal character of such contexts.

Attempting to rationalise my position, I acknowledge that this flawed "profession" defined my life, defined *me* in a way that I never expected. This provides me with an authentic perspective, a lived experience to call upon to inform how I decide to *teach the teachers*. Everything that I hold valuable as an educator – a genuine investment of body and soul, a recognition that there is always more to be learned, there is no "correct" way to teach, nor should anybody be assessed as if this was so – I remain attached to such notions as I progress from one year to the next, yet I still feel fragile under bombardment from the outside.

It is not all bleak though. I feel fortunate that the students who decide to pursue their teaching through my HEI *can* often exceed my expectations. There are many that I remember fondly, almost enviously for their talent, strength and decency. I vividly recall the labourer-turned-teacher who dropped out of their own schooling at an early age, working voraciously and overcoming their own anxieties to become a truly inspirational figure, pouring many hundreds of hours into supporting disaffected pupils. I will never forget the teacher who, frustrated by their school's lack of support for children who were new to speaking English, carefully studied the pupils' home-languages, painstakingly translating key words and phrases that would then be used in their lessons. These are the teachers who *gave of themselves*, not because it was dictated by a teachers' standard – nor would such altruism ever be recognised by such frameworks for assessment – but because it was core to their personalities, their qualities as human beings. It is these teachers that I feel most compelled to protect, to warn, to prepare.

I find myself frequently talking to student teachers about how they might guard against the competing pressures of the profession as I perceive them now, and as I experienced them all those years ago. The honesty is cathartic, though I have doubts about how wise this might be for the more fragile individuals.

It is another minor, facile act of rebellion, a futile pursuit, flailing weakly against a powerful, efficient system that shapes teachers to conform, lest they be ejected as failures. I *feel* neoliberal performativity as a shroud that seems to envelop and control everything I touch, even as an HEI-practitioner. I have struggled to understand and articulate what I know of this phenomenon, but I nevertheless feel as though I truly *know it*. My student teachers, and I before them, likely cannot escape its pervasive influence but perhaps we might hope to carve out an existence where we may stay true to our principles, all-the-while strategically fulfilling the demands placed upon us.

I was reminded of my dissatisfying, conflicted position on these issues by a series of conversations with one of my student teachers. Around half-way through the training year, I received worrying reports that the student was struggling to cope with the workload, they were unprepared for some of their lessons and they were getting little rest. The host-school was becoming increasingly concerned with the potential for a negative impact on the exam results of their pupils and were moving towards withdrawing their provision of classes for the student to teach.

Concurrently, the student would have lengthy, detailed and *fascinating* discussions with their host teachers, myself and other colleagues, fluently articulating their thoughts on why they were finding teaching in-line with the expectations of their host school to be so challenging. Central to their thoughts was how they were finding it difficult to reconcile differences between their own experiences and beliefs related to schooling with those of the placement setting and its pupils. I found their commentary to be incredibly perceptive and accurate, resonating with my own feelings on issues of performance-oriented teaching, inspection regimes in schools and how narrowly some teachers' practices seemed to be guided by constant deference to testing and other such influences.

I therefore found myself in an unsettling, uncomfortable position. I visited the school and spoke honestly with the student about how I had been impressed with their analysis and candour but also knew that I had to be direct. I explained that in order to successfully pass the programme of initial teacher education it was important to prioritise what time remained on adapting to the expectations of the experienced mentors and practitioners of the placement setting.

I had my answer at last: this was it, this is what it means for me to fail.

For the student, this was clearly a distressing time even though they remained staunchly positive and professional towards their colleagues and classes. The most I could do was to say to the student that they absolutely must not lose their motivation to be deeply, critically reflective about their experiences. However, we were already in the second half of the teacher-training course and the student was in danger of failing outright if no changes were made. For their own good, they had to be pragmatic with where they decided to direct their energies.

My uncertainties and unanswered questions were foregrounded in an instant. How *did* I get to this position? What am I *really* trying to achieve? Why am I only *allowed* to be critical of the education system now that I am no longer a teacher, with distance, perspective, partial freedom from the cosh of performance-management and assessment? Why do I feel so deeply dissatisfied with having to push students to conform in this way?

Once again, I felt like a hypocrite. As a student teacher, I had been the conformist, the hardworker, the one that ticked all the boxes and got good results. There were no rebellious or critical thoughts, I was not brave like this student. Nevertheless, they did succeed in the end, by conforming and meeting the standards. While I am disappointed that such compromises needed to be made, I am also convinced that they will have not lost their critical eye, their propensity for deep and meaningful reflective thought, yet incidents like these lead me to feel frustratingly powerless.

This is the problem that continues to motivate me. I cannot be content with simply *striving* for my ideals as a teacher educator because I cannot honestly believe that this will have any lasting, meaningful impact. I cannot escape the influences of a neoliberal education system and feel that my time in this space may be limited; the walls are closing in as they did towards the end of my last career. Even at universities, the "Teaching Excellence Framework", the "Research Excellence Framework", and the National Student Survey are all systems of measurement that can be used – through sophisticated human resource management structures – to reduce "academics" to nothing more than another set of labourers at the grindstone.

I feel that the influences I hope to act against are simply too strong to negate entirely, they seem to be embedded within virtually every aspect of society that I am exposed to or engage with. I worry that teachers – and everybody else – may be conditioned throughout their lives into believing that the only pursuits of worth are those that can be measured by mandated, blindly accepted metrics. I worry that on arrival at the beginning of their career, my student-teachers will find schools which operationalise performance-related pay, promotion prospects based on examresults, competition between practitioners and temporary contractual arrangements all in a

determined effort to strengthen the authority that they hold to manipulate teachers into being cost-effective, efficient workers.

Perhaps the best I can do for my students is to just help them cope, ensure that those who already possess the qualities that I admire are not crushed by such an oppressive system. Perhaps I can help them to remain true to themselves and become the sorts of teachers that I will be proud of just by helping them to survive for now.

This is not an ideal situation but perhaps this is as much as I can hope for, this might have to be *my* measure of success.

Queer pedagogies and self-affirmation

This lengthy vignette has a much wider scope than its predecessors, simultaneously refocusing the narrative on my personal feelings of resentment and discontent while also casting a gaze more broadly to the national context of the UK education system and the generally neoliberal character of the managerial and assessment regimes surrounding myself and my students. Though I begin my re-readings with a slight worry that such a lengthy and seemingly convoluted story might become a "pointless and futile cacophony of individual interests" (Kim, 2016, p. 20), on further examination I recognise a series of familiar themes being carried further into my career and applied to a more recent context that presents new spaces (and complications) for my reflections. I therefore feel that the lengthier nature of this vignette can serve "to produce aesthetic and provocative thick descriptions of personal and interpersonal experience... describing these patterns using facets of storytelling" (Ellis et al., 2011, p. 277) and necessitates both a compartmentalised and holistic approach to the reading.

Several strands of thinking arise from my repeated readings of this piece. First, these writings continue to build on my previous chapters in constructing a view of contemporary educational policies that strongly define acceptable, legitimate knowledge and practices, consequently serving to marginalise or nullify the traits of others and myself that I claim to hold in high regard. These ideas seem to be captured at several points, again through my use of characters or depiction of critical incidents. More broadly, this chapter continues to explore my disillusionment with a working life defined by managerial mechanisms that have become quite definitive of my understanding of neoliberalism. I identify dominant ways that I feel my students are compelled to perform, and express disdain for those who succeed and progress within the education system by

acting in superficial, strategic ways rather than those who seem to be more genuinely, personally and intellectually invested in their work.

Throughout these writings, I repeatedly stress that it is the desires of each of the actors in the narrative – myself, a few vaguely imagined and some more precisely characterised student teachers, and the ever-present bodies of management and governance – that become the focal point of my concerns. I am therefore drawn to Fraser and Lamble's work on "Queer Pedagogies" (Fraser & Lamble, 2015, p. 62) – as I will explore further shortly – for how they have framed their thinking around what constitutes normative and non-normative priorities and preferences in education as a response to features of the neoliberal zeitgeist that seem to resonate with aspects of my story so far.

A further dimension of the writing that I am drawn to in my reflection is how the narrative depiction of these events from my life history serve as opportunities for self-affirmation. The lengthy and somewhat longwinded vignette is a space where I explore a series of disappointments and concerns but with a common thread and ultimate goal of rationalising and justifying my belief that I can do some good in the face of overwhelming neoliberal influences and constraints, if only to "speak 'over'" the master narratives that have been so troubling in my writings so far (White, 2010, p. 293). This vignette therefore simultaneously serves to apportion blame for some of my negative thoughts or deleterious circumstances to external sources such as education policies, the neoliberal character of management and assessment practices that I operate within, and even the student teachers themselves.

I conclude this chapter with a reminder that it is not my intention for the writing to degenerate into needless self-indulgence or rhetorical posturing but in fact my desire "to understand a self or some aspect of life as it intersects with a cultural context... and invite readers to enter the author's world" (Ellis et al., 2011, p. 280) necessitates a foregrounding of my beliefs and judgements on what constitutes morally just approaches to education (Frank, 2002). It is only by examining such aspects of my authorial decision-making that I feel able to claim my vignettes and analysis to be as authentic and purposeful as I hope for this thesis.

Codifying teacher "quality": The Teachers' Standards and Qualified Teacher Status

From the very beginning of this vignette, I define my role as a teacher educator as being ultimately dependent on adherence to the current legislative frameworks of Qualified Teacher Status (QTS) in England, specifically The Teachers' Standards (Department for Education, 2011). The constraints and formative influences that have been present throughout my story are once again established in my new sphere of activity, with my role as teacher-educator resonating strongly with my previous experiences as a schoolteacher being dominated by processes of assessment and managerialism. Kelly, speaking of the American education system, summarises a vision of teacher education which resonates with the tensions emerging in my own story:

Teacher educators needing to meet requirements of state licensing bodies and accrediting organizations are in a position similar to that of ... teachers: they must adhere to externally imposed standards and curricular requirements while keeping their courses rigorous, interesting, and critical. (Kelly, 2018, p. 71)

Though I continue to foreground criticality as a desirable characteristic of my own practice and that of my students, I also profess to have not been quite as naïve about such possibilities as I might have been at the start of my own career in school teaching. Many of the constraints and compromises that I explored in previous chapters are transposed into my understanding of Higher Education. For example, I recognise that although "University is the site of higher learning ... only certain forms of learning are valued and rewarded" (Kimpson, 2005a, p. 83), again codified within frameworks like the Teaching Excellence Framework (Office for Students, n.d.). Similarly, my socialisation into this new role can be described as a period of strategic negotiation (Lacey, 1977) as I establish myself as a teacher educator, continuing to be troubled by the compromises that I deem necessary to maintain my position of employment and the performance of my students.

Counterposed characters: the neoliberalist and the critical teacher

Many of the concerns I have about the form and character of the policies and institutional contexts depicted, such as school management systems and the teachers' standards, are again explored through the construction of broad stereotypes along with some more specific characters. In parallel to my earlier concerns around superficial, strategic approaches to mathematics teaching, I express disdain for students who engage in instrumental superficiality and praise those who demonstrate a dedication and care for their learners that is not so easily codified or measured. First, I list the traits of an imagined strategic-performance-oriented student teacher: "a compliant citize[n]... who focus[es] on how to meet quality accreditation requirements (and not critique the standards they are required to address)" (Sims & Waniganayake, 2015, p. 334). However, making sense of these cases is rendered somewhat more complex than my previous characterisation of colleagues from my time as a mathematics teacher, as these students' actions in their classroom must be understood alongside their actions – often presented as their preferences – as a learner in the context of teacher education. Fraser and Lamble (2015) summarise three strands of a neoliberal culture that, they argue, permeates teacher-education and aligns with my depiction of a neoliberalist student teacher stereotype (examples from my vignette noted beneath each characteristic):

 "fees, funding and marketisation" have shifted what has historically been a "teacher-student" relationship to one of "trainer-consumer" and (re)frames teacher-education as a "transactional framework" (Fraser & Lamble, 2015, p. 63).

I depict a reluctance by some students to engage in "academic work to [instead] 'focus on their teaching'", seemingly seeking an apprenticeship model of teacher education rather than a programme of scholarly studentship (Furlong, 2013), one that I am obliged to provide as a result of my own precarious, managed position.

 "a shift in educational ethos... reframes and channels teaching practices through discourses of managerialism, audit culture and performance indicators" (Fraser & Lamble, 2015, p. 63).

I am concerned by students who "have settled on observable activities as the ultimate end-goal for their efforts", that their development as a teacher should prioritise "observed" practices, "documentary evidence that gives the impression" that "the student acts in line with (but does not critically question) school policies". I worry that "the neoliberal ideal is their ideal" and I similarly reinforce that the fictionalised character of a critical but troubled student teacher "did succeed in the end, by conforming and meeting the standards".

3. "the neoliberal project works to produce a particular kind of student subjectivity (namely one that is individualized, career-driven, competitive, etc.), which in our experience can mean students are less receptive to noninstrumentalized and transformative modes of education" (Fraser & Lamble, 2015, p. 63). I describe students "requesting more precise dictation of their activities rather than desiring any autonomy in their decision-making", also relating to the antiacademic sentiment mentioned in relation to the first characteristic, above.

Recognising aspects of neoliberalism in my sense-making and expression is wellestablished in my writing. However, of note in this particular vignette is how I still position the student as an agentive individual, someone who decides to prioritise instrumental performance over critical pedagogy as part of their own becoming as a teacher, once again speaking to what I have depicted as a more nefarious and formative dimension of neoliberal subjectification. Neoliberalism is situated not only in the societal or educational structures surrounding a student teacher, but is also presented as deeply entrenched within the character traits of at least some of the fictionalised actors in my narrative. For example, the efficiency and productivity of teaching practitioners in-line with a narrow set of performance-measures has become the central benchmark for not only my own adequacy as a teacher but is also assumed to be the case for many of my students.

It follows that some of my frustrations arise from a recognition that although I have developed a degree of fluency in the lingua franca of contemporary, neoliberal teacher-performativity, this does little to challenge the potentially detrimental effects of reductive descriptors of "quality" as a teacher (Sims & Waniganayake, 2015, p. 334; White, 2010) as they are codified and legitimised by mandatory standards frameworks and related accountability structures (Training and Development Agency for Schools, 2007; Department for Education, 2011). That I seem obliged to cite these standards so frequently as my own justification for the compliance required of myself and my students again positions them as an unquestionable and omnipotent device in a manner that Bourassa's impassioned, provocative writings describe as a form of "domination and social control" (2017, p. 329). This entire vignette is dependent on an understanding that compliance with standards is central to the business of entering the teaching profession (Lacey, 1977) and that students may be more or less predisposed to such an eventuality. As Sims and Waniganayake (2015) conclude in their work with Australian Early Years educators, I worry that students have already internalised a strategic instrumentalism as their chosen way of navigating the challenges of teacher learning – precisely as I had done in my earlier life – but that such an approach likely:

results in professionals who construct new identities that align more closely with managerialism, immersed in targets, performance criteria and the way in which they are required to report against these. Through this self-policing they become neoliberal subjects. (Sims & Waniganayake, 2015, p. 337, citing Olssen & Peters, 2005 and Blum & Ullman, 2012)

It is this somewhat circular line of reasoning that reminds me how I utilise aspects of my own experience to construct an imagined teacher who is not only receptive to the pervasive and overbearing neoliberal managerial structures that I frequently deride, but one who may already be quite reliant on signifiers of performance that such a system affords for personal fulfilment (Ball, 2016). Once again though, I find myself inadvertently writing "hegemonic tales - stories that reproduce existing relations of power and inequity" (Ewick & Silbey, 1995, p. 197) despite the overarching intention of my work to instead "challenge the taken-for-granted hegemony by making visible and explicit the connections between particular lives and organisations" (Ewick & Silbey, 1995, p. 197). By this stage of my analysis though, I recognise that this may be something of an inevitability arising from the need to speak to but also within the discourses that have been so dominant throughout my life. For example, my repeated use of the Teachers' Standards speaks not only to the particulars of accreditation on my course but to the communicative qualities of my narrative, that the very notion of "standards" might serve as a way of relating my storytelling to my imagination of the neoliberal zeitgeist in a way that resonates with my reader:

Much of the public rhetoric surrounding standards and their value would fit within this discourse. Usually this comes in response to a public concern with declining standards and the need to engage in systemic education reform. However, as Sachs suggests, the "purpose of a commonsense view of teacher professional standards is to present an uncritical view of professional standards ... that it makes sense to put in place a regulatory framework that provides for quality, whatever that might mean". Supporting this uncritical view of standards is a technical-rational ideology which is embedded in the neoliberal global system of capitalism. (Tuinamuana, 2011, p. 74, quoting Sachs, 2003, p. 177)

Though I feel that contemporary societal leanings towards anticritical standardisation goes far beyond my analysis here, this line of reasoning also leads me back to the desires of the students as a more focused area for reflection. I therefore now turn my attention to the counter-characters that I have used to explore a different possibility for student teachers. These are cases that seem to contradict the rather bleak, pessimistic societal and institutional surroundings that I have depicted so far, claiming that teachers may indeed be critically minded and authentically caring should they choose to do so.

Counterposing characters, competing desires and traits

In a manner reminiscent to my counterposed, fictional characters of Adrian and Rick earlier, the latter half of my writing depicts "thoughtful teachers, that is, teachers who are responsive to students and situations" (Fairbanks et al., 2010, p. 161) as alternative possibilities to the earlier neoliberalist stereotype. These counter-cases are only introduced after I have already established the opinion that many prospective teachers will arrive at my ITE course as neoliberal subjects, and may be quite settled with the view that "young children are not valued for who they are now, but rather for who they will become; the aim [of school-teaching] is to create compliant, productive, employable citizens" (Sims & Waniganayake, 2015, p. 336). Within such a line of reasoning therefore it seems logical to me that "the ethic of care is excluded from the professional discourse" (Sims & Waniganayake, 2015, p. 338) and this becomes a criticism that I again level at the Teachers' Standards as a device capturing the reductive, political tone of contemporary educational discourse as I see it. I acknowledge that students might pass their course by adhering to these standards in a superficial, strategic manner but I also see this as an inferior, less desirable approach compared to those who demonstrate a "genuine investment in 'being' a good teacher". Such a distinction in values is neatly captured by Fairbanks et al. in their exploration of American teacher-education:

Not all of our teacher candidates demonstrate thoughtful teaching. Some become technically competent but not particularly responsive to students or situations, despite our best intentions and our belief that it is such responsiveness that constitutes thoughtful teaching and lies at the center of teacher effectiveness. (Fairbanks et al., 2010, p. 161)

Such considerations are present in my depiction of students who went far-beyond my expectations (and indeed the minimum levels of performance required to pass their programme of training towards qualified teacher status) who "gave of themselves", motivated to support the children in their care rather than being directed by an assessment requirement. Unfortunately, that I place such altruistic behaviours as extraneous to what is necessary to qualify as a teacher is yet another unintentional deference to the neoliberal master narrative, a tacit admission of the success of the neoliberal project even in these more positive cases, and I am quite shocked by the alignment of not only my actions but the way I have constructed my story in-line with Noonan and Coral's rather sinister warnings:

Neoliberalism has been actively attacking the educational mission of schools at all levels of the education system, but especially secondary and post-secondary. If the neoliberal

agenda were to be realised, the primary role of schools would be reduced to preparing students for a life as little but complacent alienated workers, quietly content with the ephemeral pleasures of consumer society. (Noonan & Coral, 2015, p. 52)

From the stereotypical conformists to the altruistic, thoughtful and caring teachers, all the characters I utilise in the narrative are subject to the same regimes of governance and management yet the students I admire the most are those who are discontent, troubled by the status quo of the institutions they are being inducted into, or primarily motivated by the needs of the young people in their charge rather than the priorities of their employers. The most prominent differentiating trait of these cases, then, is the desire of an individual and how this may be realised in-line with or in spite of the influences that I have positioned as so powerfully influential so far.

Non-normative educative desires, queer and critical pedagogies

The notion of desire is utilised in the narrative – sometimes directly – as a focus of my anguish. For example, I am concerned that student teachers do not "desir[e] any autonomy in their decision-making" and would instead prefer "precise dictation" of their working practices in a highly instrumental, superficial manner. I am mindful that these recollections of encounters with characters are merely "fragmented, autoethnographic moments" (Holstein & Gubrium, 2012, p. 57) and I do not take these to be constitutive of the totality of any specific student teachers' thoughts. Somewhat inevitably though, these cases lead me to constantly re-engage with how neoliberal influences act across levels of education and therefore to literature on critical pedagogies as a way of situating and making sense of my experiences.

First, I turn to Sims' & Waniganayake whose argument builds on the work of several authors that I have become quite familiar with for their writings on critical pedagogies and neoliberalism: Giroux (2011) and Ball (2003, 2015, 2016; Ball & Olmedo, 2013) for example. Although their analysis centres on the compliance of Early Years teachers in Australia, I am struck by how aspects of their argument align so closely with many chapters of my story leading to the circumstances of my HEI and secondary practitioners here in England: "neoliberalism aims to create regulated, normalised citizens and this process operates on children, those who teach them and those who teach the teachers" (Sims & Waniganayake, 2015, p. 342), neoliberalism being an unescapable dimension of my life-story which transcends all three of these levels. Of particular resonance with my thinking is an application of Giroux's argument that "private issues

are connected to larger social conditions and collective forces ... the very processes of learning constitute the political mechanisms through which identities are shaped, desires mobilized, and experiences take on form and meaning" (2005, para. 20). In line with Giroux's reasoning, I feel that my stories to this stage describe how I have been shaped by neoliberal culture and have learned to desire only that which may be realised within the confines of the systems of governance that I find myself within. I present the standardised performance-management regimes I experienced as a pupil and teacher as the most prominent formative moments of my development.

Presented as a consequence of my learning from the events recounted in successive chapters of my writing, I firmly position "a true investment of self", "desiring... autonomy" and having a "critical eye" as being distinctly non-normative and therefore any attempts to engage in such thinking are somehow "rebellious" or "brave". In my use of such phrasing and synonymous terms in this most recent vignette in particular, I notice that one of my central concerns is not merely that student teachers might lack the capacity or even the opportunity to exercise their agency as a professional but I am actually far more worried that they may not be predisposed to even want to do so in the first place. As I reflect on my teacher education role in relation to the fictionalised characters depicted, I express my own desires to direct students in a manner that I hope would challenge superficial, instrumental leanings: critical pedagogy (Giroux, 2011). Crucially, I again place such efforts as strictly non-normative within the neoliberal paradigm as I perceive it (Fraser & Lamble, 2015) and that I am somehow directing students towards realising what I construct as non-normative educational desires. My "little acts of rebellion" are therefore placed outside the norms and expectations of teacher education, instead aligning with Fraser and Lamble's:

queer approach to pedagogy, which explicitly seeks to open up space for **non-normative** educational desires to emerge, potentially offer[ing] fruitful strategies for fostering critical and transformative learning. We argue this approach may be particularly useful in resisting the constraining effects of contemporary neoliberal educational policies. (Fraser & Lamble, 2015, p. 62, my emphasis)

I notice my writings drawing evermore towards more an explicit problematisation of the desires of educators and learners as a critical element of not only my storytelling, but of central importance to the educational concerns that initiated my process of inquiry in the first place.

Taking a brief moment to reflect on why I entered into this project of narrativisation of memories and feelings as a methodology that seems more personally meaningful than my initial proposals, Frank's thoughts on narrative analysis (2002, as I will revisit again shortly) serve as a useful reminder of my aim to make sense of contradictions and tensions which permeate the socio-political-professional contexts that I situate myself in. However, a further layer of complexity is therefore that my analyses are guided by a lens of moral introspection, asserting that such an approach constitutes a meaningful, worthwhile contribution to knowledge despite my acknowledgement of the quite (in)different yet dominant modes of reasoning that have been so prevalent throughout my story so far.

Moments of failure: "just another cog in the machine"

A substantial section of the vignette is spent reflecting on a disappointing incident, depicting my interactions with a critically-minded but underperforming student teacher as a focal point for my failings. Though I respected this student's candour and maturity in raising concerns about the school they were working in, I felt compelled to coax them back towards strategic compliance in order to pass their assessments and gain their accreditation "for their own good". Some of my greatest worries are therefore captured in Nash's description of indoctrination that would arise from the suppression of spaces for rational criticism, the kinds of discussion that this student teacher seemed compelled to engage in:

What is to be condemned is the forcible inculcation of ideas among young people whose rational powers would permit them to criticize and evaluate such ideas, given the opportunity of free discussion... Deliberate indoctrination, even in "desirable values", is incompatible with a growth toward freedom, for it conditions rather than educates. Conditioning proceeds by keeping the individual away from competing influences and by subjecting him totally to the influence that is believed will bring about the desired behaviour. (Nash, 1966, pp. 82–83)

Though I express great disappointment that my only course of action for this student was to encourage their conformity as the only possible way forward. Nevertheless, I am surprisingly heartened by the way the student is troubled in a manner reminiscent of my own concerns. It is this line of thought that draws me back to literature on critical pedagogies once again (e.g. Giroux, 2011; Kincheloe, Hayes, Steinberg, & Tobin, 2011) and the opportunities and challenges such principled approaches to teaching might face when situated within the neoliberal governance structures and cultural norms they describe. I

eventually arrive at the conclusion that I must continue to "to protect, to warn, to prepare" my students in spite of my doubts and frustrations. Failing to do so would again speak to how "equity, inclusivity and justice are silences neoliberalists see no necessity to address" (Sims & Waniganayake, 2015, p. 341). My choice of language rings resonant with the continually oppressive character I give to the institutions of teaching, whether national or local, but despite my frustration at some students' compliant, instrumental leanings, my reaction as a teacher educator seems to centre on acts of talking or raising awareness.

Reflecting on my ideological assertions

Though I have often foregrounded my surroundings as having profound formative and constraining influences on my freedoms, motivations and opportunities as a learner and pedagogue, my repeated positioning of characteristics, actions or principles as "good" or otherwise superior to others should not be read as a careless turn towards self-serving rhetoric but instead as a mechanism for further analysis and introspection:

People need to create some standard of what is higher, otherwise they could not discriminate their own and others' actions. But their standards are not fixed and their ongoing revision requires constant dialogical affirmation. Moral life takes place in the stories ... through which that affirmation is sought. (Frank, 2002, p. 113)

I am therefore not only reminded of the affirmatory function of my storytelling, but hope that my choice to reflect on claims of a moral nature provide an authentic dimension to my analysis, and that my assertion of such elements as important should be seen as an attempt to draw my imagined reader into my frame of thought, as Frank's words again serve as an inspiration:

Hearing the moral impulse in others' stories enables us to become part of their struggle to reenchant a disenchanted world. Failing to hear this impulse we seem doomed to a pessimism that can only lament what is not. Such pessimism, I believe, articulates all too well with neo-liberalism, which as political economic practice first deforms the personal and then holds up this deformed version of personal life to attest to its core belief that people are only consumers. By affirming the authenticity of the personal, narrative analysis can initiate a significant political intervention. (Frank, 2002, p. 116)

I hope that beyond providing a space for personal self-affirmation or catharsis, or serving me instrumentally as a means to doctoral accreditation, my choice to foreground autobiographical narrative as the focus and form of my study is in fact a relatively positive product of my troubled journey to this point, if at least partially for "catharsis... reinforcement or confirmation... organisation of thoughts" (Reinharz, 1984, p. 318). While my writings make visible a deeply entrenched, pervasive instrumental rationality that I seem to have been imbued with through a life dominated by neoliberalism, my thoughts on the morality and desires of educators, and that I claim to have drawn meaning from autoethnographic, narrative inquiry, stands in direct opposition to the norms of the neoliberal culture I find myself in. As Reinharz' describes, I hope that the approach I have taken to this social science thesis may even be a form of "social activism" (Reinharz, 1984, p. 314) in itself.

Chapter 11: Experiences of Teacher Education, Statistical Literacy and Critical Thinking

Introduction

In the second vignette reflecting on my recent role in Higher Education, I discuss (fictionalised) student teachers' apparent engagement with theory and critical pedagogies, depicted as being in tension with their own performance-oriented needs. I continue to draw on my experience of occupying a variety of positions and contexts in education to attempt to make sense of my contemporary situation. This leads to frustration with the complexity yet inter-relatedness of my disparate concerns: "all paths lead back to neoliberalism" (p. 185), it seems. However, in alignment with Brenner et al.'s variegated conceptualisation of neoliberalism (2010), this vignette continues from the preceding chapter to consolidate my multiple experiences and perspectives: what initially emerged as situated instances, contingent on the power relationships and organisational structures immanent to each of the local spaces and time-periods I have explored so far in my writings, the facets of neoliberalism I begin to draw together are simultaneously bound by the geographical, historical and political context of England that has seen successive waves of neoliberalisation over the course of my lifetime (Ambrosio, 2013; d'Albergo, 2016; Keddie, 2016; Peck, 2013; Rudd & Goodson, 2017).

Vignette IX: Why do my learners seem so dismissive of theory and critical pedagogy?

To this day, I continue to feel disappointed by educators and professional literatures which seem to lean towards simplistic, procedural thinking, speaking to those who desire prescription of "what works", who expect a playbook of pedagogical techniques rather than relishing a responsibility to understand the reasons for, and consequences of, one's actions as a teacher. The work of my university-based teacher-education course embeds critical, research-informed practice at every opportunity, yet occasionally students seem to respond negatively to expectations of deeper introspection, exploration of theory or critical reflection on their ethos and motivations. These activities are simply not worth their time if it will not help them to *perform*; reflective practice and theoretical understanding is seen as pointless when contrasted with **just** what will *look good* to an observer on assessment-day. Those hypothetical observers' words are the only ones that matter, mine – and indeed those of research authors and wider academia – do not.

In many ways, it appears to be no different to my experiences with some of my mathematics pupils, years ago in school: "**just tell me how to get the right answer**" they would say, reaching the end of their patience for a subject they did not really seem interested in. As much as I realised that those learners perhaps did not aspire to become career mathematicians, I still felt a personal sense of disappointment that they did not seem to *really care* about what I was trying to teach them, a feeling that seems to have haunted me throughout my career. For example, as I have found myself writing in an earlier vignette, this seemed evident with some of my A-level Statistics classes, a course that I had so keenly promoted as being valuable in its own right. Yet again, I could not escape the prominence of utilitarian measures of worth:

In contrast to the 'usefulness' cited by some students as a reason for enjoying or valuing the statistics course, some who became disengaged expressed that they did not 'need' statistics for either their current or future studies or careers. (Lahmar, 2012, p. 62)

Sadly, it is now some of the student teachers who seem to exhibit a fervent desire for "the answers" in the most direct terms.

As a university-based teacher-educator, whatever the subject-matter of the session I happen to be teaching, I rely on a combination of readings – scholarly *and* professional – along with my continuing experience of observing and supporting student-teachers to inform what I hope to be intellectual, scholarly and reflective discussions.

I really want students to apply what they have learned in our seminar-spaces to their ongoing and future practices, but I also hope they will accept that this is inherently a time-consuming and deeply involved process that *they* need to take responsibility for; learning to teach is not easy and, as much as I want to help, I cannot simply *tell them* how to do it. That is not to say that I leave the students to fend for themselves of course! Much in the same way that I would show mathematics pupils the contexts a technique might be applied to, or what an exam question *might* look like, my student teachers will discuss how they have engaged with an educational concept in their placement schools. I will even try to anticipate students' anxieties about the regulatory and performative context they are subject to, explaining what I would expect an assessor to notice from a classroom-observer's perspective.

The student teachers are often very keen to talk about what they have seen and experienced, and it takes little effort on my part to help them notice how their voices are situated within their personal and professional contexts. Some will speak proudly or defiantly about particular materials or policies and how they have responded. Others will recall, with great confidence, their experiences as a learner as an explanation for their reasoning, sometimes positive and inspiring, other times pitched as great injustices that their peers need to be made aware of. I am satisfied with these discussions in any case. All of this goes some way to supporting a collective understanding that schools, along with their teachers and pupils, are far too unique and diverse to simply prescribe a single, coherent and simplistic way of doing things.

Then, with what has come to feel like a disappointing inevitability, the exploratory and reflective discussion is sustained for only so long before more pointed questions arrive, seeking *the answers* in sound-bite form: "But precisely *how* should I teach long division?" "*How* should I manage behaviour?" "*How* should I use lesson objectives?" "*How* should I assess learning in lessons?" "*How* should I teach problem-solving or functional mathematics?".

Suggesting that I could distil complex issues like "problem solving" down to a series of algorithmic instructions should surely sound faintly ludicrous, much the same as I see behaviour management as quite complex and unique to each individual teachers' sensibilities and character. However, I still worry that there seems to be quite an appetite for such didactic teacher education. Of even greater concern, though thankfully quite rare, are occasionally frustrated proclamations that *theory* in general is of no relevance to the "real" classroom. But where does this prioritisation of the simplest path-to-performance, or an anti-theoretical stance come from? Could it be from the predominant discourses in the schools where my students spend so much of their time, captured in some part by the "professional development" courses that I remember from my time as a teacher. I remember some of those events quite well, a day out of the classroom with a highly-paid guest speaker whose job was to make educational theory more palatable, regurgitating cliché-filled, dated-yet-seductive pseudo-psychology, helping us to find our pigeon-holes as "right-brain" thinkers and "visual learners" without the need to question our preconceptions or challenge the inherent, logical limits of knowledge. Is this what my student-teachers really want, or are they simply responding pragmatically to their needs and surroundings?

Worryingly, this makes me question what this all indicates about my own position too, how *I teach the teachers*. Am I really doing any better than the professional development guest speakers that I so deride in my recollections? As part of my own training, I have reviewed recordings of lessons I taught on statistics and became acutely aware of how instrumental I was being – perhaps subconsciously – in my approach. I might *talk about* the richer side of statistical literacy, but I would still show the students how to correctly present lengthy calculations such as correlation coefficients by hand. The clarity and structure of these activities was reassuring, comfortable for both me and the students, something that we could all *do* and agree upon in a relatively short amount of time. The students seemed to respond positively if they felt as though they could *do* something that they could not do before. **But is this meaningful learning?** The most overt signs

of student satisfaction with the process seemed to be when some would claim that they would "use" these ideas in their own teaching. Dissatisfaction seemed to result from unanswered questions or uncertainties, or that the activity was not "practical" enough for them to apply without adaptation or some independent, creative thought. All of this affects me, makes me feel that my teaching is more or less worthwhile: I want my teaching to be helpful, I want my teaching to be useful.

It would be an outright lie to suggest that I did not utilise anything from what I have described to be quite shallow training experiences in my own school-teaching career too. The provision of ready-made resources was undoubtedly a favourite of mine and my colleagues, when we were given some structured task that could be replicated in our future lessons. I would tell myself that I was at least *trying* something new with my pupils that someone else seemed to think was a good idea, it did not really matter *why*. Perhaps then, I can empathise and see some logic in my student teachers' thinking. Maybe I should not level quite so much disdain in their direction and recognise that I too have, at times, settled into the teacher-as-unskilled-apprentice role: trust the "expert" but do not try to take any decision-making into my own hands, that's the expert's job, *not mine*.

As I come to the end of this vignette I wonder, is it actually unsurprising that my beliefs about more authentic learning have perhaps changed over the course of my life? It might help to explain my feelings of dissatisfaction now, but then why do I continue to feel compelled to teach in such a simplistic manner at times? In short, I think it is because I feel highly pressured to do so, though my consciousness of how these influences may manifest themselves can vary. This is certainly not the case in all of my teaching and I try to challenge these problems where I feel it is possible. However, I constantly live with the overriding feeling that my continued survival in-post seems to revolve around my conformity to closely prescribed measures of performance, with a profound washback effect on my actions. My students must be *satisfied* with their teaching – they must be happy even if I feel the content we are covering could be more deeply theoretical – as it is learner satisfaction that will be audited, and will "come back to me" at the end of the year in various evaluations and assessments. The student teachers must of course seem "well-prepared" in school, but again this typically seems to be observable as detail in lesson plans, plentiful resourcing, finely tuned presentations and well-guided mathematical methods. By contrast, deeply critical questioning of sense-making processes and imperfect, exploratory discussions do not fit with easily deliverable, observable and measurable lesson-structures. I also recognise the system that seems to surround my students, *its* effect on them and - by proxy - me: their pupils' measurable achievement is paramount. Mathematics learners must be provided with the

piecemeal algorithms that will allow them to obtain a satisfactory score on their exams, any deviation from this could be deleterious to "performance".

This vignette, and the one before it, therefore perhaps only really serve to build my unanswered questions and to explore my reasons for pursuing this study in the first place, to try to understand the extent of my disappointment and frustrations as a learner and educator. I have tried to revise and refine this story to have a clearer aim or outcome, much like my lessons and lectures, but if anything I have captured the *lack of clarity* I feel in my positioning as a teacher and learner at times, perhaps showing just how challenging it will be to reconcile conflicts between the multiple perspectives that I seem to be calling on.

Post-writing alterations

Alterations including rephrasing, editing and fictionalisation were made to minimise unnecessarily provocative or judgemental language and reference to any specific cases.

Attempting to speak across contexts

As a starting-point to my analysis of this vignette, I will examine my narrative construction and exploration of the student-supervisor relationship in teacher education. One prominent device that I have used to this end is a repeated recollection of my feelings arising from dialogic interactions between myself and my (fictionalised) learners, and I wonder how my storying of these interactions might speak to aspects of my ideological thinking around teaching and teachers, particularly where I identify moments of alignment or conflict with what I assume to be signifiers of my students' beliefs and motivations. At a couple of points, I also reflect on experiences as a mathematics teacher that seem to speak to similar concerns, recognising a comparable duality of frustrations and affordances arising from my learners' preferences for algorithmic, didactic teaching, and occasions of my acquiescence to such undertakings in spite of my aspirations to the contrary. Taking "the context as the product of a choice made by the narrator" (Zilber et al., 2008, p. 1050), I notice that the comparisons I make across educational settings and time-periods serve as an assertion that the problems I am exploring are not intended to be situated within just a single sphere of activity – the mathematics classroom or moments of teacher-education dialogue with my student teachers – but my writing is instead intended to speak to much broader implications of education in a neoliberal society (Fraser & Lamble, 2015; Giroux, 2011) that I see as transcendent across levels of formal education (schools, specialist institutes, universities) and even the last few decades of my own story.

Frustrations and time-wasting

Alongside the well-established tropes of superficial learning, the preponderance of assessable activities as a guide for educative practices, and my propensity for speaking of these issues through a lens of neoliberalism as foci for my musings in my vignettes so far, I am particularly drawn to the use of qualifying or emotive phrasing that establishes an aggravated, frustrated and judgmental "narrative tone" (Crossley, 2007, p. 140) throughout this vignette. My search for relevant literature yielded a striking quote from a student teacher participating in a research project in The Republic of Ireland that resonates strongly with my line of thought here:

The school want me to be able to manage my classes and also get them to learn and the PGDE course seems to want it to be like some sort of Dead Poet's Society scenario where you are like an inspirational and amazing teacher that you just magically charm the students into doing what they are supposed to be doing rather than **the reality** of how people teach, in a sense. So I found that a bit confusing, **how are we actually being judged on our visits, what are we supposed to do, is there a checklist? Nobody has given us the rubric.** (Quote from a student teacher research-participant, Hall et al., 2012, p. 103, my emphasis)

As I have examined elsewhere in this thesis, I find such statements problematic and irritating for how they "ignore or deny the complexity of the enterprise" of teaching (Nairn & Higgins, 2011, p. 113). However, I also find this quote to be particularly pertinent, and am therefore compelled to include it in its entirety, for how it rapidly descends into a sarcastic, dismissive, and eventually exasperated tone. I am quite alarmed by how this student teacher goes beyond mere dismissal of any approach to teaching that is not related to their assessment as a practitioner, going so as far as to deem any avenues for activity or thought that might step outside these bounds – even an expectation that teachers might try to "inspire" their learners – to be some kind of laughable and idealistic folly on the part of the teacher-education establishment. Further-still, in the final few words of the quote, the absence of a prescriptive "rubric" (K. Hall et al., 2012, p. 103) is posed as nonsensical, and such provision must surely be the responsibility of someone, not just the teacher-education institution but the teacher-educator, someone like me. I will acknowledge, of course, that my interpretation of this student's words will be quite subjective and influenced by the worries of inadequacy and fear of failure that have punctuated my previous stories, hence my immediate jump to view this student's statement as accusatory, that the teacher-educators have fallen somewhat short in their responsibilities. Once again, I notice how even my internal, interpretive dialogue as I make sense of this quote and the other literatures I have utilised in my research fits neatly within a discourse of "responsibilisation of students and teachers in neo-liberal governance" (Torrance, 2017, p. 83). My response to this reading therefore leads me to consider dialogic moments in my writing where I might identify "a layering of two often divergent intentions in one utterance ... the speaker takes a stance on the intention attributed to the person quoted" (De Fina & Georgakopoulou, 2015, p. 376). I therefore turn to dialogic moments that I have constructed between myself and my students that are similarly oppositional and judgemental in tone.

Along comparable lines to my reflections above, I am drawn to my choice of qualifying or emotive language – some of which has been altered to be more suitable for my final thesis – and how this evokes a familiar sense of concern and disappointment as I re-read this vignette. I imagine (fictionalise) some student-teachers and mathematics learners to be irritated and short-tempered, having little patience for my attempts to engage in activities that would fall broadly under the heading of critical pedagogy (Giroux, 2011; Kincheloe, Hayes, et al., 2011). For instance, the word "just" appears a couple of times in a way that requests immediacy and restriction, no lingering around anything superfluous in my teaching: "**just** what will look good to an observer... '**just** tell me how to get the right answer'". In common with the example from Hall et al. above (2012), my imagined students are driven to annoyance by wasting time on anything they deem to be outside what is related to the assessment of their current course of study. I am expected to share in their sense of urgency for "the answers" to complex problems, even where might I argue that the less easily bounded or "practical" exercises may be of benefit to their longer-term growth as a teacher.

What emerges in the narrative is a back-and-forth of judgement and dismissal of opposing groups. For example, I strongly assert that a propensity towards critical thought should matter to learners in any context but simultaneously imply that instrumentally oriented neoliberalist teachers are unlikely to truly appreciate such higher forms of learning. Worse still, I identify how the spaces surrounding student teachers will serve to reinforce such a mindset, that the pupils they are teaching and the school contexts they are working in will prioritise only what is easily measurable, little else. Similarly I claim that the "guest speakers" providing training in school settings are likewise misguided and misleading in their approach, my own recollections of such activities resonating with Graven's concerns about such superficial teacher education activities that will lead to "at best 'shallow copying' ... without real engagement" (2011, p. 128). A serious implication of such accusatory and denigrative assertions in my writing is summarised by Frank thusly:

The pitfall of such arguments is their attempts to specify, even legislate, what can count as things that matter... talk of "things that matter" readily becomes what Bourdieu calls symbolic violence: convincing some groups that what matters to them is inferior, thus they are inferior. (Frank, 2002, pp. 111–112, citing Bourdieu, 1998)

Indeed, on reflection I am inclined to sympathise with some of the othered characters in the narrative as I too fear such a negative judgement, particularly in the eyes of my students. Powerful feelings of inferiority, insecurity and frustration tend to arise when others – students, schools or my employers – deem that my efforts serve little or no obvious educational purpose when framed within a narrow, utilitarian view of learning with the sole purpose of successfully passing assessments; what I believe to be important for the development of a teacher does not seem to matter to them, therefore I do not matter. My only reassurance here, and one that I feel is warranted in light of my experiences up to this point, would be that:

the student-consumer may not be in a position to make an informed judgment about the quality of an educational experience until well after he or she has digested a quality education. The educational process itself may be painful and anything but immediately satisfying. (Martinez-Saenz & Schoonover, 2014, p. 17)

Reflecting on this point a little further, I feel it reasonable to claim that my thinking around how teachers and children should be educated is better-informed than it would have been, say, during my own time as a student teacher and undoubtedly even more so than my formative years as a school-pupil. However, I also notice that out-of-context, without the previous chapters of my life story leading to these realisations, the arguments in my vignette may seem rather self-defensive, keen to pre-empt any accusations that my efforts to engage in critical pedagogy are unimportant or even frivolous while also citing constant, multiple pressures for me to teach in a "simplistic" manner. Notions of immediacy of observable educational outcomes and instant gratification are similarly problematic for how they seem to operate in a contradictory manner within this vignette: as much as I allude to longer term aspirations that my teaching might nurture intellectually-minded and critical pedagogues, I present my feelings of success or failure as being almost entirely dependent on seemingly instantaneous feedback in the moments of interaction I have with my learners rather than any longer-term appraisal of my efforts. These contradictory ways of operationalising concepts in my narrative might seem quite confusing to an unfamiliar reader, but I also notice how such usage seems to emerge as a common feature throughout my writings and may in fact be seen as congruent with my feelings and sense-making about such issues. I am therefore drawn back to the previous chapters of my story and a holistic view of my approach to this study not just as a foundation for my opinions but as an explanatory aid, a way that I might convey to my reader how I make sense of my narrative choices of the student-teacher relationship and how I have learned to repeatedly frame them through a lens of neoliberal subjectification:

In this neoliberal climate... practitioners have failed to construct their arguments in ways that could be better understood by outsiders to the profession; instead they are focusing on how best to be compliant. Challenging these hegemonic positions may even be perceived as being 'anti-quality' and not in the best interests of the ... [education] sector. (Sims & Waniganayake, 2015, p. 333)

Some of my disquiet then, and even the "lack of clarity" I mention in my closing comments, can therefore be seen as indicative not only of my acceptance of a discordance between my evolving beliefs about education and the compromises that I deem necessary to continue in my professional role, but that my actions inherently fall short of constituting a challenge to the hegemony of neoliberal thought, not least for how I continually recognise strands of such reasoning in the very deepest recesses of my life stories.

All paths lead back to neoliberalism: teaching the teachers

My narrative construction of student teachers in this vignette relies not only on strong assumptions about the nature of their participation in learning (prior to and during their teacher education course) but also that their socialisation as a teacher centres on compliance with the extant structures of schooling rather than alternative possibilities such as those proposed by Jannucci & MacPhail:

In contrast to early functionalist beliefs about teacher socialisation, it is important to recognise that socialisation is a dialectic process whereby the individual is active in their continuous engagement with social structures and context as each continually shape one another. (Iannucci & MacPhail, 2019, p. 39, citing Zeichner & Gore, 1990)

Unfortunately, I find it difficult to completely agree with Iannucci & MacPhail's argument for how it only applies partially to the circumstances I have depicted: the way I position the students in this narrative is that they are allowed to be in dialogue with me, with my teaching, and that their responsiveness to my efforts will shape the way that I teach. However, very rarely have I imagined student teachers (or even established practitioners) as being able or perhaps even motivated to speak to the broader social structures of the school and its managerial processes. I am led to again ponder how my narrative to this point reinforces a view that "the predominant discourses in the schools where my students spend so much of their time" are overwhelmingly hegemonic, and I worry that students or teachers embracing such reasoning in a non-critical manner may in fact play into the very systems of neoliberal governance that I have come to see as so damaging and oppressive.

Embedded within my writing are strong assumptions about how receptive I expect my student teachers might be to the notion of challenging instrumentalist or otherwise reductive modes of thinking, particularly those that have been reinforced through a life of learning which may have been similar to my own. Leyva's "cognitive-sociological theory of subjectivity ... in neoliberal societies" (2019, p. 250) guides me back to my concerns about a pre-existing entrenchment of an instrumental, performance-oriented view of educational worth within my students - completely reminiscent of my own attitude and coping strategies earlier in life – that may be the most difficult for me to challenge in my role as teacher-educator. Following this line of reasoning further-still, encouraging students to appreciate alternative possibilities for their own learning would be extremely difficult if a prioritisation of didactic, algorithmic modes of instruction is "congruent" (Leyva, 2019, p. 255) with both their prior experiences and their beliefs around what will be central to their future roles as teachers. Alongside the reinforcing influences of the educational and professional spaces and assessment practices I document in my narratives, this particular line of reasoning places at least some responsibility on the students themselves, that it will be necessary for my learners in any context to become receptive to what I acknowledge to be non-normative educational approaches and goals. Though the pessimistic undertones of much of my writing might preclude any hopes that these kinds of epiphanies may occur for my students, my own story is one of just such a realisation.

Towards the end of my vignette, I note that it is "unsurprising that my beliefs about more authentic learning have perhaps changed over the course of my life", serving not only as a lead in to why I might be concerned about my own slippage into instrumental instruction, but also as a rationalisation of the misalignment of student teachers' perspectives and my own. If I read this vignette with the earlier chapters of my life-story in mind, I am re-establishing that I find it reasonable for students in a similar position to my own to embrace and strategically navigate assessment regimes as a central guide to their actions, and further still that a growth beyond such goals is also a desirable, if not a necessary, trait of what I believe to be a good teacher. The way that I embed the evolution of my ideological perspective within my narrative is particularly important here, as I am finally speaking from the privileged position of teacher of teacher of pupils. In particular, I am struck by Shpeizer's exploration of "critical thinking as a vehicle for personal and social transformation" (Shpeizer, 2018, p. 32), not only for how I similarly ascribe great value and transformative power to such modes of thought, but also for how the author notes that: "in teacher education, educational ideology plays a double role, since it establishes the ground for the learning experience of the teachers-to-be, while, at the same time, it lays the foundations for their future teaching" (Shpeizer, 2018, p. 37). My narrative then, not only in its explicit moments of parallel-drawing between my own time as a mathematics teacher and my more recent position as teacher educator, but also in my attempts to influence students teachers' practices, speaks to schools and the education system at large. Isomöttönen captures a similar line of argument to my own, starting from a realisation that that some of his university-students also "called for a more teacher-directed course resembling their previous studies" (Isomöttönen, 2018, p. 873) and going on to explain that an "educational ... researcher is, then, likely to discover that all roads lead to the education system itself" (Isomöttönen, 2018, p. 873). This is indeed where I find myself, with my gaze drawn towards the institutions and systems surrounding me and my learners not only as an explanatory structure but also as a space of convergence between my own situated story and that of the wider social and political master narratives that I hope to speak back to. I depict a struggle to "reconcile conflicts" of ideology between myself and the national education system with my student teachers acting as something of an intermediary, my concerns triggered by interactions with students that seem reflective of their prior experiences as learners and their future priorities as teachers. That fictional stereotypes of students become the focus of my ire is then perhaps unsurprising, they are my closest contemporary point-of-contact to the strands of neoliberal culture that have been present in so many other chapters of my life.

Revisiting Leyva's cognitive-social model provides a further point of contemplation around how my writing continually embeds an assumption that my students are surrounded by neoliberal influences in the same manner to myself. My attempts to nurture and influence student teachers are set as a counter to "the bustling school and its managers" where student teachers spend the majority of their time, the space where the most detrimental influences of neoliberal culture are "repeatedly encountered and observed ... institutionally and culturally ubiquitous, valorized and enforced" (Leyva, 2019, p. 255). Further still, "the more emphasis is put on practical teaching in the school context, the stronger the socialising influence of the – often traditional – school context on teacher learning may become. (Korthagen, 2017, p. 388). While I acknowledge the nature of my narrative account here cannot speak to the underlying social-psychological circumstances of any specific student teacher, that I am drawn yet again to accountability processes and performance-management mechanisms ultimately reinforces my view of these as potentially unassailable, profoundly formative influences running across the chapters of my story.

Control vs freedom for critical thought, my conceptualisation of teacher learning

As I have noted above, throughout my narrative I envision a flow of directional influences between the education "system" and myself operating through my learners in the context of schools and universities, but only occasionally do I make such reasoning explicit. For example, I describe the rather negative connotations of a "washback" effect from school pupils' performance-oriented needs, through the dominance of teachers' assessment-oriented teaching practices, as a probable cause and a partial justification for my student teachers' prioritisation of process-driven learning. By proxy then, although I am no longer a schoolteacher, I am still under a degree of control from whatever systems of governance and assessment surround my student teachers. I am therefore subject to similar constraining effects on what may be deemed legitimate approaches to learning and therefore the expectations of learners and teachers themselves.

The influences of the neoliberal school context that I frame in deleterious terms, albeit viewed at a distance and by proxy through my student teachers, appears to be replicated in tensions between my own implied or explicit conceptualisations of critical teacher education and where it seems that such possibilities are not fully realised. For example, I wish for my learners to "accept that [learning to teach] is inherently a timeconsuming and deeply involved process that they need to take responsibility for". I then identify a series of signs I look for in my interactions with learners which would constitute caring about learning: a propensity to reflect, to question and to take responsibility for one's own learning rather than holding the teacher to account for all of the understanding. Unfortunately though, my commitment to such a stance only seems to go so far. In an uncomfortable turn for the writing, I am often swayed by my perception of students' own demands and use this as a precursor to moments where I have slipped into instrumental teaching of my own. This is another dimension to my writing which seems to speak beyond the immediate context and to my established view of the education system that all of my learners are situated in. Shpeizer neatly summarises this as:

the constraints of the educational system itself. Preservice teachers, veteran teachers, and researchers, all complain and raise doubts about the possibility of teaching effectively for critical thinking, given the official environment that "worships test scores" ... focuses on content rather than process, memory rather the understanding ... and that fails to provide students with the space or time for self-study and self-reflection which ... are preconditions for the learning of critical thinking. (Shpeizer, 2018, p. 42)

Whether I am speaking of mathematics teaching or my more recent work with student teachers, I admit – disappointingly – to directing my own actions in the way Shpeizer describes, directly citing assessment mechanisms (in the case of the HEI, student satisfaction metrics and Qualified Teacher Status pass-rates dependent on adherence to the Teachers' Standards) as justification for an apparently inevitable return to procedural didacticism. Tuinamuna's problematisation of the issue neatly draws together some of these initially disparate threads of my thinking:

If we view teacher professional standards via a discourse of commonsense, underpinned by a technical rational ideology, we would see the 'problems' of schooling and education as fairly simple, and relatively easy to solve. Of importance would be the need to control all the players so that the desired outcome can be achieved. One of the easiest ways to be seen to be in control is to set in place a system of controls and measures via standards as a form of accountability. (Tuinamuana, 2011, p. 74)

This draws me to the last consideration in this analysis around the notion of control and who seems to be directing action in my narrative.

Despite my lengthy musings about the student-teacher relationship and a desire for learners to engage authentically and critically in their education, "I feel highly pressured to" adhere closely to the frameworks which codify what constitutes acceptable practice, placed as they are as mechanisms of accountability and control even though – in this vignette at least – they operate primarily through my students. What I imagine to be causes for their frustrations or their satisfaction belies my conceptualisation of studentas-consumer "because the customer is always right in the market, students in the education market are also always right" (Lorenz, 2012, p. 621). Educational institutions and managers are backgrounded in this piece to such an extent that it is in fact the learners in my narrative who have become the most prominent voice and hand of neoliberalism. I therefore find it unsurprising that my disappointment, my upset and my despair is so clearly focused in their direction, but only because – perhaps unfairly – I also place such a great weight of expectation on my students to exceed my expectations, and to be my counter-voice to neoliberalism: "that wherever student teachers begin ideologically, their efforts will help children reach new cognitive understandings, instilling the notion that education must be experiential, democratic and/or critically conscious" (Rodriguez & Magill, 2016, p. 9). To conclude, I notice how have become quite dependent on students' more positive responses as a central source of affirmation for my pedagogical choices, a source of emotional support for going against some of the perceived intellectual constraints that have been so disconcerting. As I state in the vignette itself: "I am satisfied" when students indicate that they share a view that "schools, along with their teachers and pupils, are far too unique and diverse to simply prescribe a single, coherent and simplistic way of doing things" and that my attempts to embed such an understanding as a guiding framework for teaching the teachers is perhaps not so nonsensical after all.

Chapter 12: Finding a solution and a problem closer to home: Statistical Literacy

Introduction

Chronologically, the next vignette depicts a similar period to the previous chapter, exploring my time as a teacher educator and as a doctoral student, but with a substantively different focus. Here, I identify where familiar concerns and complications arise from my disciplinary specialism in statistics, building from my earlier thoughts as a mathematics teacher and more recently with the perspective of teacher educator with a responsibility for directing future teachers of the subject. I consider how my experiences and learning in this field have become not only a source of personal motivation and pride but also provide a structure and language that I hope might allow me to speak with a sense of authority and legitimacy to the broader education system that has led to such troubled stories so far.

Vignette X: What is "statistics" and why do so many mathematics teachers seem to hate it?

The very first iteration of my proposal for this PhD study led directly on from a master's project that I had undertaken, part-time, as a practicing schoolteacher. I had gleaned some insights into the views of students enrolled at the specialist institute on my Advanced-level (A-level) Statistics programme, exploring their thoughts on what they found interesting or enjoyable about the course, and why they decided to enrol in the first place. In what seemed like a natural step forward at the time, I wanted to expand my evidence-base and understand why statistics courses like my own, which had seemingly been a very a positive experience for most of my students and that I was very proud to have led, were not more commonly studied in schools and specialist institutes around the country.

This quickly became a less than desirable proposition, however. By the time I was ready to continue my academic studies, I had moved on from my specialist institute teaching-post and had also realised that this was such an ephemeral issue, reliant on a specific qualification that I happened to have been teaching during my master's course, that I was no longer as closely and personally connected to such a situated avenue for inquiry. Nevertheless, I remained attached to a feeling that statistics is an underappreciated discipline, harking back to my days as an undergraduate who saw success in statistical studies but not in pure mathematics, and was a view reinforced by my feelings of relative marginalisation as a specialist teacher in the subject several

years later. Based on these experiences, I moved forward under the belief that statistics should be (but is *not*) regarded as a valuable subject for study, distinct from mathematics, and that I should be allowed to speak of it as such in my new role, educating teachers of mathematics *and* statistics.

Scrambling for PhD-worthy ideas, I wondered if perhaps a sensible direction would be to consider some broader questions that had arisen from my experiences as a teacher but that might also be immanent to my new role as teacher educator. Rather than considering pre-university students' attitudes to such subject-matter, might I instead consider the opportunities and encouragement that were provided by their teachers and schools? I had learned, from my previous preparatory work for designing the specialist institute course, that very few institutions in England taught Alevel Statistics, so was I right to believe that a notable proportion of mathematics teachers are reluctant to teach the subject? If this is true, then why might this be? What might be done about it?

By the time I began to seriously consider "fieldwork" for my PhD, I was now working in mathematics pre-service teacher-education and my thoughts quickly turned to the student-teachers in my charge. I had rightly anticipated that our cohorts seemed to exhibit a similar variety of mathematical specialisms and strengths to those I had noted as an undergraduate and as a practicing teacher: statistics seemed to be a minority, niche interest rather than central to the business of a mathematician. However, probing further it became apparent that even the few student teachers who claimed to be keen on statistics were not necessarily as like-minded as I had initially thought. *Defining* what I actually meant by "statistics" and understanding whether or not this was congruent with my students' thinking, quickly became necessary yet somewhat arduous and problematic.

In the simplest possible sense statistics can be taught as just another branch of traditional mathematics. For example, *calculating* an average – a mean, a median, a mode – is precisely that: a calculation and nothing more. However, as I suggest to my student teachers, being able to really *do* statistics is much more than just crunching numbers. As contemporary curricula for mathematics and other subjects seem to support me in saying, learning to use statistics is all about having the skills to understand what an average might or might not actually *represent*, and how we might construct a justifiable, valid claim about the context from which we drew our data. In my eyes, a statistic without attention to context and is meaningless, and a mathematician who does not explore the processes, nuances and limitations of claims made about the world by using

data is no statistician. **But then, I am not training** *statistics* teachers, or am I? This was the first of several perplexing questions that I have struggled with ever since.

My predicament became evermore confusing, resonating with so many previous experiences in my own education. Here I was, passionately promoting the power and richness of statistical literacy while also needing to reconcile the fact that – in the few hours available to discuss such issues on the ITE (Initial Teacher Education) course – there needed to be sufficient time to provide instrumental solutions, examples, structures to work with and for student teachers to easily implement in their classrooms.

This misalignment between my pedagogical aspirations and aspects of discussions and teaching which seemed to be received most favourably by students has led me to worries of a deep-seated hypocrisy that burdens my thoughts. A superficial, utilitarian, instrumental approach to learning and using statistics is *precisely* how I have succeeded in my own life as a student and even as a teacher. The only way that I have been able to ascend to a position where I am privileged enough to challenge my student-teachers' approach to understanding statistical literacy, to have the space to slowly feel comfortable with an expanding freedom for critical, academic thought, *began* with me successfully passing highly structured, algorithmic assessments in mathematics and statistics. I have only been able to *work towards* becoming what I now consider to be statistically literate, with a sceptical, inquiring disposition much later in my life *because* I conformed to the system as-is without question, *because* I used statistics in the very narrow ways that I now decry others for.

I remind myself that this dualism of approaches to statistics teaching and learning was also the saving-grace of the pre-university A-level course I designed and led all those years ago, that I have held in such high regard ever since. In an idealised way, I would argue that my students were encouraged to be statistically literate and could "make sense of the world" using the techniques we had covered. A more honest depiction might be that the course was targeted directly at applicants to the specialist institute with relatively lower grades in their prerequisite qualifications compared to their peers, the ones who were predicted to benefit the most from a highly-structured route to an advanced level mathematical qualification. It was possible to obtain enough marks on the exams to pass without really being *statistically literate*, simply following algorithms without any contextual application or understanding.

It would also be an outright lie to deny that this simplistic, utilitarian, instrumental manner is how I initially approached statistics too as a student at various levels of education. But, surely, at some point I developed a desire to go *further* than this, to use statistics in a more meaningful way rather

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than mere calculation-as-product? In any case, it is in these moments of doubt, debate and introspection that I realise how deeply entrenched my own strategic and instrumental use of statistical subject knowledge has become, and how this has been so integral to my successes in life.

As I settled on an exploration of these problems as a direction for my doctoral studies, I wondered if my own instrumental preferences and those of my students was somehow connected to working in quite a closed, structured subject such as mathematics, so I decided to speak to the science and geography student teachers too. I imagined that they might have more of an intrinsic motivation to make meaning of the world through data; unlike my stereotypical view of pure mathematicians, the passion they might hold for *their* specialist subjects might drive them to see statistical literacy as a necessary skill for being an effective scientist or geographer. I was instead surprised to find several of my informants describing similarly utilitarian and sometimes onerous views of statistics. I now feel that I had incredibly naïve, with little to distinguish between the views of mathematicians, geographers and the scientists on these sorts of issues.

Some of the students I spoke to, in their own words, "hated" statistics in strikingly similar terms to some of my previous colleagues while I was a practicing teacher. Even some of the more positive individuals seemed to think that teaching in a way that problematised sense-making from quantitative data would simply be impractical within a heavily time-constrained context. When asked to describe their own previous experiences as learners, most described using statistics as a tool during their studies in a very closed, utilitarian manner *because it was necessary to pass their course, nothing more.* This was not statistical literacy as *I* had grown to know and hoped for others to see it. This was again algorithmic, free of nuance or decision-making, simply getting the right answer on a test. I was quite disappointed but not entirely surprised to hear that succeeding on assessments had been prioritised to such an extent by these students. However, I was also intrigued, this was clearly an issue that permeated far beyond just the mathematics classroom.

This left me confused and conflicted, yet motivated to try to effect some sort of positive change. I recognise that my journey towards my current views on statistics teaching and learning has been to build upon a broad technical aptitude for statistical analysis *first*, and I cannot pretend to have not been quite superficial or reductive in my own approach to study in my earlier years. I recognise that I have only become more critically-minded, statistically literate and more relationally aware much later in my life, or am at least struggling towards doing so. An appropriate course of action for my practice as a teacher-educator therefore seems unclear and might remain so at the conclusion of this study. However, I cannot be content to simply *tell* my students to be statistically literate and to teach others to do so, particularly when it seems apparent that they may have neither the experience, confidence nor time to do so, and I cannot escape the feeling that "Do as I say, not as I have done before" feels dishonest and hypocritical.

In writing this, I wonder what the difference is between being principled, value-driven – the qualities that I have called upon to ease my conscience and justify my decisions throughout the story I have told through this and the other vignettes – and simply being arrogant and self-righteous? Depending on how I write this narrative, perhaps they are one and the same. Throughout the last few years of my research, I have questioned students' views on statistics from the perspective of an inquisitive expert, as if I already possessed some *superior*, authoritative claim to what statistical literacy *should be*, examining how these students were falling short of my expectations.

In any case, this is where I began my thesis. Despite my own history of manipulating the algorithmic qualities of statistical techniques for my own ends, I now hold a belief that statistical literacy is something greater. What I do not yet comprehend is where this belief has come from: Why do I feel this so strongly now? Why do I feel the need to have the freedom to shape my own epistemological beliefs, and have the desire to encourage teachers to do the same? How is this connected to my actions as a teacher-educator and experiences as a schoolteacher? If I can even begin to answer some of these questions that have been foregrounded in my thinking, then I can at least be truer in my convictions and justify my conflicted position.

My expectations and hopes for teachers of statistics.

The opening paragraphs of this vignette chart a shift in my thinking and researching parallel to my movement between employment as a specialist institute teacher and university lecturer. As I progress through these chapters of my life, I do little to challenge my pre-existing understandings that statistics is an underappreciated discipline at pre-university level and go on to consider how I might take advantage of my new role to investigate a dimension of this issue that aligns with my newer position as a teacher educator. The introduction to this piece is therefore unashamedly loaded with bias, seeking reaffirmation of my worries about teaching and teacher-learning without any allowance for alternative conceptualisations. It follows that the central gist of the piece is quite reminiscent of earlier writings in many ways. I seem to be struggling to come to terms with competing influences and self-doubt around my activities as a teacher-educator and, by extension, as a researcher as I ponder a selection of questions which remain unanswered. Despite this, I continue to hope for a positive moral-ethical

dimension to my professional activities, embracing and promoting intellectualism and critical thinking, embedded within my construction of an ideal learner and teacher: "a being who has the skills and dispositions to analyze, evaluate, and judge beliefs and stances in various fields, as well as to decipher the complexity of real-life situations, while aspiring to improve both the self and the world" (Francis & Mills, 2012, p. 99). Nicholson – a teacher-researcher specialising in statistics – sees a similar intrinsic worth in data-appraisal skills, summarising that "interpreting evidence is a critical skill for personal well-being in terms of the decisions one makes, and more generally in terms of one's ability to engage meaningfully in debates about complex issues" (Nicholson et al., 2006, p. 8). I am therefore led to one of the central themes of this analysis, that aside from my frustrations at where acting on such values might be realised or constrained, I also notice how the idea of "critical thinking" begins to hold a dual role in my writing, not only as an idealised view of the possibilities of statistics teaching, but also as a guiding ethos (Conle & deBeyer, 2009) implicit throughout the judgments I make about what constitutes appropriate, ethical decisions as an educator and learner.

By noticing how I begin to align the critical "disposition" of a statistical thinker (Wild & Pfannkuch, 1999, p. 225) with my view on the fundamental values I aspire to and hope to see embraced by my students, I am struck by Altes' depiction of how "salient ethos effects [in narratives]... seem to be attached to four main kinds of grounds: the ethical (morality), the alethic (truth), the epistemic (expertise and knowledge of various kinds), and the sociopolitical (power)" (Altes, 2014, pp. 62–63). Viewing this vignette as a culmination of my thinking to this point, statistics has therefore become much more than just my chosen disciplinary specialism but instead is now a vehicle for articulating my aspirations and priorities related to Altes' four dimensions above. Exploring a conceptualisation of statistics not only as a taught curriculum specification but also as a tool for developing knowledge-based claims, asserting truths through quantification, and providing spaces for critical appraisal of such assertions, I find that problematising the business of teaching teachers of statistics therefore becomes a useful device for me to identify and highlight where my own concerns seem to conflict with the values and actions of others. In the analyses that follow, I contemplate not only the narrative positioning of myself and my learners that has become quite common in my writings, but also how quite a possessive attachment to statistics as my area of specialism constitutes a further attempt at cathartic introspection and self-affirmation (Conle & deBeyer, 2009)

while also serving as a manifestation of several of the dilemmas and arguments that have been centrally positioned in my storying so far.

Statistical literacy is (or should be) common sense, and just as important

That I have so readily depicted a ubiquitous need for statistical literacy skills and a broadly critical disposition is not only an indication of my ideological stance but also speaks to a hope that my arguments will appeal to an audience beyond the limits of my own contexts such as teacher education or the disciplinary boundaries of mathematics. In no uncertain terms, and without bounds, I assert that those who are statistically literate "could make sense of the world" and that "this was clearly an issue that permeated far beyond the mathematics classroom", a view reminiscent of other academic authors promoting the expansive importance and relevance of statistical skills:

Admit it or not, we're all statisticians, as when we're making grand inferences about a person from the tiny sample of behavior known as a first impression. The difference between mathematical statistics and the everyday variety is often simply the degree of formalization and objective rigor. (Paulos, 2005, p. 3)

Although I find Paulos' argument problematic for how it superficially advocates an almost carefree generalisation from a limited base of evidence, it is precisely their use of strategic reductivism as a persuasive rhetorical device that leads me to ponder how I might have learned to talk of statistics in similar terms as a way of convincing my audience. I find that arguments such as these promote a common sense view of statistics as being a rather straightforward but ultimately utilitarian pursuit in a worryingly similar manner to the discourse surrounding The Teachers' Standards (Sims & Waniganayake, 2015, p. 334; White, 2010), failing to adequately challenge the inherent validity assumed of quantitative assessment processes so deeply embedded in schools (De Lissovoy, 2013; Torrance, 2017). This seems to be a way of thinking that I have often positioned as definitive of the neoliberal culture that I am concerned with. Underlying my latest vignette is therefore perhaps a subtler deference to such manipulative narrative strategies as holding some potential for appealing to my imagined readers.

Instrumental statistics teaching and the curriculum, looking for contradictions

Depicting a period approaching a decade after my own induction into teaching, I seem unable to escape thoughts of hypocrisy and disappointment arising from how my attempts to enact principles of critical pedagogy seem to be undermined not only by other characters and educational institutions but, crucially, by my own compromises in the face

of such external influences. For example, I decry those students who seem to prioritise mechanistic reproduction of mathematical techniques on closed-question exams, precisely as I had done as a learner and teacher, yet there is a repeated refrain to how my own professional progression seems to have been dependent on activities where an authentic, critically reflective dimension is seen to be extraneous or even implicitly discouraged. My view that a teacher's opportunities to pursue such goals are extremely limited becomes particularly apparent in my reflections on my own teaching activities at various stages, where I feel compelled to meet a perceived need for instrumental learning ("simply getting the 'right' answer on a test") despite wishing for a more nuanced and critical engagement with statistics as a field of study.

I find it somewhat paradoxical that the Mathematics National Curriculum alludes to the very qualities that the broader structures of education that I have documented throughout my life story have sought to undermine, namely that young people should be able to:

- explore what can and cannot be inferred in statistical and probabilistic settings, and express their arguments formally;
- assess the validity of an argument and the accuracy of a given way of presenting information. (Department for Education, 2014, p. 6)

Statistics as an aspect of the mandatory taught curriculum in schools therefore serves as a helpful target for my claims that the governing mechanisms of contemporary schooling in England (constructed as dominant, unquestionable quantitative measures of performance and associated mechanisms of accountability, as discussed elsewhere) counteract attempts to engage in critical debate about the validity and appropriateness of such systems. Nevertheless, as I note in my story, I am quick to capitalise on the presence of such wording in The National Curriculum for how it serves as an authoritative voice of support for teaching statistical methods, yet I have also already established that the structures of assessment and performativity in education seem to undermine an authentic enactment of such ideas in my classroom, and apparently in those of scientists and geographers too. My argument is no longer entirely situated in the moments of interaction I depict with student teachers but instead speaks to the long-standing expectations and identities of such characters.

As I have done in previous chapters, though perhaps not as clearly or explicitly as it appears here, viewing statistical literacy as a form or sub-genre of critical thinking draws me to literature exploring and problematising pedagogies and, in particular, teacher education in this area:

There are difficulties that relate to the teachers themselves: lack of knowledge of critical thinking essentials and of critical thinking pedagogy ... and no less important, their adherence to traditional ways of teaching, and the traditional role of the teacher in which teachers attempt to control most of the learning process ... and seek to transmit knowledge rather than to facilitate the development of skills, dispositions, and character. (Shpeizer, 2018, p. 42, citing Mason, 2000; Thishman et al., 1992)

Indeed, one prominent dimension to my presumptive claims about science and geography teachers was how these subjects might operationalise statistics in a manner that, while procedurally taught or practiced, is attached to a broader disciplinary orientation, that statistics might hold some worth as a core competency of a good scientist or a good geographer in a way that I have already established as being superfluous to the core business of a good mathematician.

Unlike my other analyses to this point, I can also call on some empirical work that I conducted as part of this study to add a further dimension to my discussion: the voices of student teachers that have hitherto only existed as imaginary and fictionalised constructs, reflections of my own perspective rather than any credible claim to the views of others. Until now, my egocentric narrative has sought to simplify and generalise stereotypes from my experiences (De Fina & Georgakopoulou, 2015, p. 412). I am therefore interested to note where my assumptions and expectations of statistical literacy teaching as part of disciplinary norms might align or conflict those of student teachers in as Mathematics, Science and Geography. In a focus group discussion with student teachers, one participant closely aligned their vision of a good scientific practitioner with the statistical skills I have positioned as so valuable in my own narratives:

You do not need to be able to do all the more abstract topics of mathematics to be a good scientist, but you do need to be able to handle data, to be a good scientist, that's my opinion. (Focus Group: Science Student Teacher, 2016)

Varelas similarly found some student science teachers to be cognisant of a divergence between their conceptualisation of good scientific practices and the limited opportunities they might have in their classrooms to realise such ends:

As teachers of science, the [participants in the study] recognized the messiness, complexity, and uncertainty of science-in-the-making, but hesitated, debated, wondered, and worried about the extent to which they could and should be enacting them in their classrooms. They

differentiated the practice of science teaching from the practice of science referring to teacher's ethical and moral obligation to students, student prior knowledge and understandings, time constraints, need for closure, and student interest. When it came to science teaching, [they] also privileged data collection and analysis over developing theories or explanations. (Varelas et al., 2005, p. 503)

Not only does Varelas draw attention to the moral-ethical dimension that I ascribe to critical pedagogies, but foregrounds statistical procedures as a preferential direction for science teachers' activities, again aligning with commentary from my owns student-participants, speaking of the affordances of a scientific contextual basis for teaching being constrained by the limited time available in school:

It's great, you know you can record your own data and you can apply stats to real-life data that you've made, but the flip-side of that is when you try to teach ... you have to teach the statistics, how do you interpret the data, how do you plot a line graph, so suddenly then you're into two or three lessons, so alright it's great... you know, to have a practical context to it but, on the flip-side you're dragging out how long you're actually taking to teach the [science] curriculum by applying stats. (Focus Group: Science Student Teacher, 2017)

Reflecting on these statements in relation to my writings, I am again quite disappointed to notice that my own narrative does not expect students to identify such struggles and pre-empts a resignation to the strict constraints of a school environment that I assume to be similar to those I have experienced.

Continuing an examination of my vignette in light of empirical data from focus group activities with student teachers, I am intrigued by my apparent urge to make generalised and quite negative claims about student teachers' beliefs about the value of statistics and how this aligns with my characterisation of oppositional educational values in earlier chapters. As I have established throughout my writings, I have felt quite pressured by the educational systems I have worked within to conform to reductive and anti-critical modes of performativity despite recalling a few proud moments to the contrary. I begin to write any compliance within such regimes into the subject-characters themselves, either as an intentional mercenaryism or unfortunate naivety. In either case, I worry for how such actions not only conform with but perpetuate the status quo, anticritical and anti-professional sentiments which undermine the worth and expertise of knowledgeable and ethically-oriented teachers (Ball, 2003). Indeed, Holloway & Brass note just such:

a shift in governmentality where objectification, quantification, and measurement are no longer treated as antithetical to teacher professionalism, but as precisely what teachers need to know and monitor themselves, improve themselves, and fashion themselves as professionals. The distance between the teachers and the accountability apparatus has all but collapsed, fabricating a new kind of teacher, whose value is oriented to markets, management, and numerical performance indicators. (Holloway & Brass, 2018, p. 382)

On further reflection, I would therefore see the prominence of this "new kind of teacher" (and the notable absence of alternative possibilities) in my narrative as a representation of my despondency and level of concern, contradicted as it is by the actual words of my student teachers. Returning to my exploration of statistics as a subject-discipline, I seem to construct a similar duality of possibilities for an authentic and ethical exercise in critical statistical literacy alongside the pitfalls of slippage into careless application of mathematical techniques as a proxy for meaningful research-based assertions:

statistical methods might be simply dismissed as scientifically useless, but inoffensive amusement of the type of chess or crossword puzzles, if it were not for the social harm it is actually inflicting... in substituting tabulating technique for intellectual method, and thus eliminating theoretic thinking from the process of scientific research. (Znaniecki, 1934, p. 234 as quoted by Reinharz, 1984, p. 128)

Recalling Nerland's depiction of knowledge practices as "the set of practices and arrangements through which knowledge and ways of knowing in a profession are generated" (Nerland, 2018, p. 242), I again consider the dangers of statistical reductivism as directly analogous to my worries around how measures of teachers' performance have become central to the acceptable definition of competent, successful teachers.

The dominant knowledge practices at play in my experiences of teaching and teacher education are what seem to have marginalised anyone except Holloway and Brass' "new kind of teacher" (2018, p. 382), much like the fictional "Rick" character in my earlier chapters. Though a more complete treatment of the debates around the "social harm" (Znaniecki, 1934, p. 234 as quoted by Reinharz, 1984, p. 128) caused by careless application of statistical methods, particularly inferential techniques (e.g Baker, 2016), lies outside the scope of this discussion, the seriousness and extent these dangers leads me back to the positioning of the source of such problems in relation to myself and my student teachers:

Positioning is a conversational phenomenon through which the actors are positioned by themselves or by others ... and used as indicator of how power relations determine discourses and how individuals take up different positionings as a consequence of these discourses. (Skog & Andersson, 2015, p. 68)

I am therefore mindful that a recurring motif in my writing is the seemingly inescapable hand of neoliberalism underpinning the centrality of narrowly defined systems of assessment in education leading to compliant and performance-oriented decisionmaking. From the earliest chapters of my story and throughout, I give ultimate deference to systems of assessment in schools. My motivation to adhere to these systems is sometimes positioned as outside influences and other times as learned behaviours, with my fears and hopes serving to act as powerful guides to conformity but coming from within.

When viewed through a lens of statistical literacy, I draw at two close parallels for consideration. First, as I recount in this vignette, I have relied on students being able to muddle through to measurable success on their statistics examinations with algorithmic, simplistic teaching of curriculum content as a standard, minimum expectation; it is possible to do statistics in a way that will seem successful without a need to think critically at all, despite undermining my claims of a more substantial and meaningful goal for statisticians. Second, the consequence of such an instrumental, utilitarian view of statistical algorithms severely undermines the possibilities of statistical reasoning for making, justifying and challenging claims, and the ability of any teacher – myself or my student practitioners – to be able to nurture such values in our learners. Turning again to the words of my student teachers, I am reassured to hear some of them foregrounding a distinction between the numerical calculations of mathematics and seeing statistics as a way of drawing meaning, however limited, from a set of data:

I think statistics ends up being just plug in numbers and get results type thing. There is actually reasons [sic] behind what is being calculated and how that gives the results and I think that is what is difficult to get children to understand. (Focus Group: Geography Student Teacher, 2017)

To teach [statistical literacy] you would have to leave out why you use the sums and just teach how to do it & what it means. (Focus Group: Science Student Teacher, 2017)

Umm, I think... statistics is one of the areas that you have to do in real life, not just in the classroom, umm... I think we have to teach kids to think statistically rather than just do statistics, so they shouldn't just be doing a graph, they have to understand why they've picked that graph, what it might show, why you pick it over different graphs, so they have to think statistically rather than just do statistics. [Sounds of agreement from other participants]. (Focus group, Mathematics Student Teacher, 2017)

These students' words resonate with my own, seeing statistical thinking as something quite dissimilar and requiring distinct pedagogical approaches to just formulaic instruction. Furthermore, that these students have foregrounded an authentic engagement with the practice of statistical thinking, being able to determine why particular statistical methods might lead to different possibilities for drawing meaning, is precisely the type of epistemic freedom that practicing teachers cannot enjoy when it comes to the quantitative measures that are used to determine their success; though I posit that statistical reasoning can be used to develop a "justifiable claim" about the world, freedoms to make critical interpretive or analytical decisions as part of such a knowledge-generation process are heavily constrained by the socio-political surroundings of educational spaces that I and my teachers must operate within.

Visioning statistical literacy: hierarchies of thought, maturation and critical thinking

Complementary to my assertions about critical statistical literacy teachings as having a greater value than procedural, algorithmic mathematics, towards the end of the narrative I also embed a temporal dimension (De Fina & Georgakopoulou, 2015) to my writing which serves to reinforce and re-present hierarchy as a possible progressive intellectual development or growth over time. This "maturation" model (Francis & Mills, 2012, p. 99) sits congruent to aspects of my own story such as progressing from lower to higher forms of statistical literacy. A further implication of this line of reasoning is that I quite arrogantly repeatedly place myself as ascendant, as though I have arrived at a higher plane of understanding, a further narrative device that I use to:

endow the story with exceptionality, enabling the narrator to construct his or her identity as an individual who does not always act the way he or she is expected to. As such, the narrator avoids the attribution of group features, and this may function as a way to negotiate the membership of a stigmatized group identity, for example. (De Fina & Georgakopoulou, 2015, p. 411)

The skewed and generalised stereotyping of subject-practitioners in my narrativisation seeks to eschew some of the more negative traits I associate with teacher educators and teacher education that prioritises assessment-oriented teaching and an anti-critical sentiment, excusing my own slippage into such domains both here and in my previous stories: "accounting for and making relevant past futures and past expectations rather than just piecing together action sequences" (Hyvärinen, 2008, p. 456). Embedded in my denigrative othering of student teachers across disciplines is a self-defensive sentiment that can be seen as arising from my lack of a clearly articulated reasoning for some of my actions, similarly identified in Vanassche & Kelchtermans' discussions with a troubled teacher educator:

When we challenged aspects of his self-understanding (i.e. asking to explain the reasons for his pedagogical approaches), John felt frustrated and moved into a self-protective stance... The impact of this process was very strong because he felt his moral integrity as a professional – as part of being a 'proper' teacher educator – was publicly questioned. (Vanassche & Kelchtermans, 2016, p. 361)

I therefore recognise my repeated use of confessional, defeatist and self-effacing language as a reflection of not only my vulnerabilities but also my uncertainties. The moments where I have fallen back on simplistic, algorithmic teaching, or where I notice my student teachers similarly conform to the expectations of their surrounding institutions, I am struggling to articulate how I simultaneously see such acts as necessary yet wrong. My writing up to this point is therefore an exercise in reflection and sense-making, and my efforts to explore when and why my students I fail to live up to my hopes serve distinct narrative purposes, neatly captured by Atkinson:

In submitting such reflections for examination... confessing a failure of some sort followed by the profession of the new understandings or practices performs two functions. First... it provides appropriate "evidence" of reflection and confirms the practitioner's growth and adoption of desired dispositions. Secondly, the repetition of what is transgressive alongside that which is redemptive reinscribes and normalizes favored or sanctioned practices and values. (B. M. Atkinson, 2012, p. 83)

Though Atkinson's work examines the role of assessed reflective tasks for student teachers, the two strands of their argument do seem to resonate with the performative qualities of my narrative. My repeated references to the pressures for myself and students to utilise algorithmic, procedural teaching of statistical methods are counterposed to a more hopeful utterances of the possibilities of richer, more nuanced and explicitly critical pedagogical approaches, positioning the latter as a legitimate, reasonable approach to the deficiencies of the former. That I purport to have been so troubled by movements back and forth between these two approaches, and that I fear such negotiation might be seen as "dishonest and hypocritical" captures the confessional nature of this vignette, and the "growth" that Atkinson speaks of (B. M. Atkinson, 2012, p. 83) would be that my story embeds a self-critical awareness in a manner that was not so obviously present in earlier chapters.

The persistence of my (erroneous and unfair) generalised assumptions about students

Reflecting on the last two vignettes, I am struck by positive and detrimental possibilities for my narrative depiction of student teachers, as Graven notes: "Teacher educators are significant narrators who explicitly reject notions that teacher experiences are bad and instead re-author teachers as having critical experiences crucial to successful implementation of the curriculum" (Graven, 2011, p. 135). As this latest analysis has shown, there is a notable misalignment between the stereotypes I have constructed of student teachers and their own words. In my writings, I have used these characters as

external signifiers of my concerns, describing mostly students who "hate" statistics, who seem reluctant and argumentative when challenged on instrumental tendencies and will therefore not be receptive to critical approaches to pedagogical development. However, such judgements are now tempered with a depiction of such individuals as potentially unknowing, unseeing victims of the education system that nurtured them. My more recent approach to characterisation may therefore be seen as a marginally more sophisticated way of managing the personification of my concerns compared to earlier vignettes, where I now begin to think of these students as taking on the traits that the institutions surrounding them seem to instil instead of being inherently, personally deficient in some way. However, Atkinson's thoughts on narrative silencing capture one of the rhetorical effects of my continued reliance on stereotyping and ignorance to the views that I captured in my focus groups which "allows no space for teachers' knowledge of practice that diverges from that [of my narrative]... such as those that ... offer alternative explanations for ways of thinking about their practice" (B. M. Atkinson, 2012, p. 80). My line of reasoning in the vignette therefore fails to present student teachers as agentive and self-aware in a manner that is contradicted by at least some of my focus group participants, and I would hope that I would be mindful of this in my future work with such students. In any case, this serves as a helpful reminder of the nature of my life writings, not necessarily to be seen as deliberately misleading but instead a product of intentional authorial choices to persuade and to draw the reader in to my personal sensemaking through narrative expression.

Section 6: Drawing together the threads of my inquiry Chapter 13: "Frustration, disappointment and despair"

Introduction

This chapter begins with an emotive vignette which acts as a transition from the storying of my past experiences to the present of this doctoral study, depicting a period of profound disquiet as I contemplate the magnitude of my concerns, recognising shifts in my professional and academic proclivities and beginning to work towards a holistic view across my lifetime and the second layer of analysis to follow. While I had not begun any formal process of analysis on my vignettes when writing this piece, it nonetheless depicts a point in time where I had started to read broadly around neoliberalism in education and to reflect on the variety of theoretical framings which would eventually form the basis of my study, becoming deeply concerned with the extent and hegemonic influence that facets of neoliberalism seem to exert across so many of my life's experiences.

Vignette XI: Despair, defeat

In this final substantive piece of writing, I yearn to scream outward, to put into words the intense feelings of frustration, disappointment and despair that have accumulated for so long and are why I have arrived at this study in the first place. This vignette is the culmination of pieces in which I have characterised my life in education as one of coping with disappointment and anxiety, a struggle against the influences of neoliberalism and, later, feelings of dissatisfaction and even guilt for having profited from a system with which I have serious and sustained concerns.

Throughout my writings, I have recounted prominent formative experiences that have led to my recognition of the values that I hold most dearly as a teacher. I feel compelled to draw my reader's attention to these ideas because I hope for these to be the centrally guiding principles by which I direct my energies and how I might gauge the success of my endeavours. In my oft-judgmental musings on the actions of others and myself, I claim an authentically intrinsic motivation and a caring yet ethically critical disposition to be far more important guides to my actions than the externally imposed performance standards by which I fear I am being measured. Paradoxically however, with a depressing frequency my thoughts often jump to speculation about how I might be seen by others (particularly employers), how I might be valued or respected for the image I choose to construct and project, backgrounding a principled appreciation of intrinsic worth that I otherwise claim to be so preferable. I worry that my motivation to prioritise personal values over external appraisal may therefore seem insincere, appearing to some readers as a strategy of self-

defence in the face of potentially negative interpretation: *How can I possibly be deemed a failure if I create my own standards for success, and argue for their prioritisation over less desirable yet externally-mandated measures of worth?*

I frequently feel compelled to defend against this question, even if I am the only person posing it so explicitly. I acknowledge that adhering to measures of "success" in professional contexts have been reassuring and profitable at times, undoubtedly providing me with the opportunity to survive, to remain in employment. What I appreciate the most, however, has been how these experiences have afforded me the chance to remain true to my own priorities at least in some small way, to teach in the way that I want to teach. I would like to see my continued survival to be a result of necessary, convenient alignment of my actions with the systems that I am measured by but **not my complete surrender.**

This is perhaps a moot point in any case as, in my professional life as a teacher at least, I have never actually failed any form of externally-imposed assessment as far as I am aware. Yet rather than seeing this as a reassurance, I still despair. It feels as though at every stage of my writing so far, with every re-telling of events in my life as a school-pupil, university student, student-teacher, qualified teacher and now a teacher-educator, I have ultimately acquiesced to the controlling influences of a society, professions or even individuals who have appeared to be the very embodiment of the neoliberal principles that I hope or even *claim* to subvert. The omnipresence of these ways of thinking seems to be an insurmountable obstacle and an indomitable force.

Increasingly over the years, I have placed greater faith in statistical literacy as a means of querying, resisting, undermining the messages and measurements that exist in my world, particularly those that I find oppressive, manipulative or unjust. I take solace in thinking that if I can utilise a respected, legitimate academic discipline to critique and dismiss imposed measures, standards and assessments as invalid – performance-related measures as a teacher, for example – then they will have less of an emotional hold over me, even when the systems and society surrounding them seem poised to punish any who seek such freedom.

But this feels like an imperfect, weak defence against the sheer power of measurement-led, outcomes-oriented education. Throughout the process of writing my life-story, I feel as though such contexts have *actively militated* against my every attempt to move out of a neoliberal performativity-dominated mindset, particularly where my knowledge and operationalisation of such ideas have worked well *for me* in opportunities to further my career. Crucially for my journey through this study, I have come to the belief that the dispositions that are necessary to be truly, critically minded and statistically literate are incompatible with, and undermined by,

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educational and professional contexts which *demand* uncompromising conformity and acceptance of the measures that learners and teachers are judged by. As frustrated and disappointed as I feel about this, I now know that I cannot say that I have been immune to these influences, nor have I been happy to recognise their permanence or pervasiveness in shaping the ways in which I view and interact with the world.

As I reflect further on my journey, the identity I might have constructed in these writings and my positioning as a professional and as a citizen, I am again saddened by my weaknesses thus far, disappointed with the misalignment between my purported beliefs and the more constrained imagination which seems possible in my practical roles of educator and researcher. In my conversations with my PhD supervisors and academic colleagues I am sometimes – rightly – challenged on my quite unintentional positivistic tendencies, tendencies that I have come to see as less credible, less trustworthy and meaningful than at least some degree of interpretivism or a post-structuralist view.

My early plans for this thesis were to *measure*, using supposedly sophisticated statistical methods, many of the opinions and traits that I have described pertaining to student teachers' statistical literacy and pedagogical beliefs. Even such vague, ephemeral and difficult-to-define ideas such as "dispositions" would be *located*, *collected*, *coded*, *established* because these fit the ontological assumptions of the neoliberal paradigm that I have grown so accustomed to: *if it is of any relevance to the performance of student teachers then it can and should be measured quantitatively*. The actual process of developing and administering such a survey turned out to be impractical, with far too many disparate and complex ideas to distil down into a short enough instrument. Perhaps just another case of my rationalisation of the circumstances, I would now argue that this survey approach would be quite shallow anyway, potentially meaningless given the complexity of the narrative that I have needed to construct so far.

But that is not to say that I would have failed, in fact I am sure that I would have been able to get away with it. Given appropriately sympathetic external examiners, the *right* audience, I could have constructed a substantial and highly technical, statistical argument, convincing *myself* of its merits and meaning in the process. This leads to the final major point of reflection in these vignettes, a feeling that knowledge has been nothing more than a form of currency, a tradable commodity throughout my life, the value of which is determined only by who I happen to be selling to at the time.

While I desire to be, *and be seen as*, a truly critical, intellectual and perceptive academic, I continue to be in a position where I feel as though I am merely operationalising knowledge to pass some

sort of assessment; even though a PhD is supposed to mean so much more than the previous academic hurdles I have overcome, I cannot escape the *feeling* that the system is the same, it is just another test.

Of further significance for this thesis, I feel, is that I am perhaps hypocritically trying to convince student teachers that a critically reflective disposition and statistical literacy should be of genuine value in *their world* without being entirely forthright about how futile or impractical such a prioritisation could be once in-post. That is not to say that there are no external influences which happen to align with my case. I find it slightly odd, for example, that the recently revised National Curriculum for Mathematics (Department for Education, 2014) and many other subjects place an emphasis on critical thought and problem solving skills despite my cynicism thus-far, and so I am happy to use such words as part of my justification for teaching statistical literacy.

Often though, I feel compelled to still revert to utilising many of the instrumental approaches that have convinced my students *and myself* in the past: "it will look like this on the test", "your pupils will need to show these steps of working", "they will get extra marks for this", "**this is the right way to answer the question**", I will say.

It all feels so dissatisfying and contradictory, but this is not all of my own creation: teachers are expected to nurture the qualities and mindset that I promote so extensively here, yet I still believe that teachers themselves do not exist in a space where this is actively encouraged or even *allowed*.

I fervently read and discuss critical analyses of high-profile news stories – in the field of Education Studies and more widely – as prominent examples of how frequent the apparent accidental misunderstanding or intentional misrepresentation of research evidence seems to be, and how statistical messages so often form a noticeable part of such proceedings. High-value currency indeed. Reflecting more broadly though, still I feel despondent, with little hope of a cultural or educational renaissance where the deleterious effects of neoliberal principles might be more widely criticised.

I am saddened by a doubt that I, nor the educational structures that I and others work within, will change rapidly or in a positive direction. Thus, the final irony may be that I am only buoyed and sustained by the comfort I have always taken in being an *outsider*; I might not be as passionate about the virtues of statistical literacy if I did not see such a serious deficiency in political, cultural and educational discourses, and I take solace in the thought that I am at least trying to make sense of where I stand.

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So where am I now? As a teacher across levels of education, I have made a conscious decision to *try* to not be completely consumed and led by an externally-dictated, assessment-driven mentality as I feel this to be a shallow, less humane, less meaningful existence that – for me at least – has been punctuated by an overbearing fear of failure, failure to be viewed as a successful or responsible professional, or to simply remain in employment as an academic.

Perhaps then, I have finally succeeded in the only way that is realistically possible at the moment, to navigate to a position where I can at least *speak* of my beliefs around critical pedagogies honestly, all-the-while accepting and even occasionally exploiting the predominance of more instrumental norms and neoliberal organisational structures of educational practice. It is a hollow victory.

Post-writing alterations

This vignette was subject to minor alterations after analysis to remove references to specific events, and a few instances of unnecessarily judgemental commentary.

Drawing my narrative(s) to a close

It has not been difficult to find others' bleak tales of teacher education in the contemporary neoliberal context, and I find that the often dramatic, emotive, dystopian wording resonates strongly with my occasional feelings of "despair" as I occupy a post as teacher educator during the writing of the final stages of my thesis. Bullough (2014) for example, captures their perspective on contemporary initial teacher education within the recent English initial teacher education context in a similarly provocative manner:

Lost is a vision of a wider public good of the sort that historically has driven teacher education and inspired teachers to teach. Performativity raises its ugly head ... offering a sort of invitation to system gaming that has become part of preparing for accreditation visits. Agency is distorted, narrowed, and increasingly self-serving. A narrow individualism embedded in competitive relations replaces collegial relations within and across academic departments... Yet, currently, only neoliberal visions seem to hold the floor, and only this side and its world-view are thought reasonable. (Bullough, 2014, p. 192)

If anything, I find it at least a little reassuring that I am not the only one to express such an overwhelming sense of futility: some of my idealistic, if perhaps naïve, visioning for what it might mean to be a learner and teacher indeed seem to become "lost… ugly… distorted" (Bullough, 2014, p. 192) through the self-doubt and questioning of this vignette. In common with earlier chapters, alternative ways of thinking and living seem to be forcefully silenced by the orthodoxy of a neoliberal education system (Rudd & Goodson, 2017). This penultimate section of life-writing therefore draws together some of the thoughts that have emerged earlier in the thesis but also oscillates between emotive introspection and commentary on my perspective and positioning in relation to much larger socio-political issues, far beyond the sphere of my own experience and influence.

This reflection of my more recent thinking has been more challenging to interrogate as a standalone narrative or as a contextually situated "microcosm" of variegated neoliberalism (Törrönen, 2018, p. 278). Instead, Vignette XI illustrates the transition into the closing chapters of my thesis, recognising how my most recent writings are the culmination of ideas which emerging and develop throughout preceding vignettes. Reflecting further on the substantive body of my writing to this point, I therefore note that I have at least partially addressed the first two research questions I proposed earlier (Chapter 3);

- In which ways do vignettes depicting my educational and professional experiences seem to reflect aspects of neoliberal subjectivity, including appearances of "technologies of neoliberalism" (Chapter 2) as being formative, constraining, conflictual or otherwise influential on the course of my life?
- What appears to be the relevance, if any, of my interests in statistical literacy education and critical thinking to the matters of neoliberal subjectivity within my various roles, and of those who I speak of in my narratives?

The first of the research questions above is very much covered across the full set of vignette with my application of neoliberalism and associated concepts in a descriptive manner, similarly identifying areas where my interests in statistical literacy become intertwined with these issues in my vignettes, responding to the second research question. I will return to evaluate my response to the set of research questions in a more holistic manner later (Chapter 14) but for now I will use my penultimate vignette (Vignette XI, above) as a starting point for identifying conceptual themes which emerge across my chapters of analysis, beginning to draw together threads of my learning across the research bricolage as a whole and therefore responding more comprehensively to the full set of research questions, and in particular those which will only be addressed by this second layer of readings (Crossley, 2007; De Fina & Georgakopoulou, 2015; Holstein & Gubrium, 2012; Kim, 2016) and analysis (as outlined in Chapter 3):

- Which common themes or threads of neoliberal subjectification emerge across the bricolage of vignettes and theoretical perspectives?
- Do these threads provide possible explanatory mechanisms for the forms and effects of neoliberal subjectification emerging in my vignettes?

To address these questions, I again call on two core concepts from my literature review and methodology: variegated neoliberalism (Brenner et al., 2010; Peck & Theodore, 2019) and crystallisation (Barbosa Neves et al., 2023; Ellingson, 2009, 2014) respectively. Beginning with variegated neoliberalism as explored earlier (Chapter 2), Brenner et al. (Brenner et al., 2010) draw attention to how the individual instances I have recounted in my vignettes and analysed in each chapter can be revisited to identify emerging, sustained and evolving strands of neoliberal rationality, recognising how they may be evident and influential in my storying, or indeed resisted, in context-specific ways (Peck & Theodore, 2019).

As I begin to read across the vignettes and analyses depicting experiences from several decades of my life, I am mindful that the socio-political context and associated regulatory frameworks surrounding me shifts – sometimes gradually and sometimes more abruptly – as I move chronologically through my stories, exploring encounters with different institutional settings and my positioning within related organisational arrangements in education. My vignettes begin with pre-university schooling and examinations from the perspective of learner in the 1990s and 2000s, the aftermath of a time described by Brenner et al. an "initial offensive of 'disarticulated' neoliberalisation in the 1970s and early 1980s" (2010, p. 210) with my exposure to "market-friendly experimentation" (2010, p. 215) that subsequently persisted across shifting UK governments (Peck & Theodore, 2019). Examples identified in the extant literature tend to lie in the background to my own writings, such as the introduction and expansion of student tuition fees shortly prior to my own entrance to undergraduate studies and initial teacher education (Ball, 2012). However, my positions as educator and teacher educator in the mid-to-late 2010s provided not only a greater perspective on facets of variegated neoliberalism in my contemporary context, but the nature of my roles also encouraged and facilitated more comprehensive reflection on interconnections between the broader socio-political contexts surrounding the breadth of spaces I had experienced over my lifetime. For example, my movement from learner to educator in different spaces and roles during my life ran parallel to the intensification of performance management practices across levels of education, contingent on evermore fervent quantitative measurement of learners, teachers and schools alike (Holloway & Brass, 2018; P. Moore & Robinson, 2016; Torrance, 2017). This is one example where my situated perspective may shed some light on a facet of variegated neoliberalisation: competitive performance

on education-related metrics are argued to be centrally positioned as an increasingly powerful mechanism within the globalisation of educational policy and practice across the timeline of my own life (Furlong, 2013; Olssen, 2020; Slobodian, 2018). I must therefore retain an awareness that the specific forms and effects of these movements are situated temporally, nationally and locally in the spaces that I have experienced and storied in my vignettes: the north of England between the 1990s and 2010s, and the positions I have occupied in education across this timeframe.

Moving towards my second level of analysis by reading across my preceding chapters allows me to explore the gradual growth of my knowledge, drawing together and into focus facets of my learning about the presence and functioning of variegated neoliberalism in my life (Ellingson, 2009, 2014), emerging and evolving through the individual stories of so many decades and contexts (see also Chapter 3, Figure 3). At this closing stage of my work, variegated neoliberalism, governmentality (Byrne, 2017) and affective subjectification (Anderson, 2016; Chowdhury, 2022; Valero et al., 2019; Zembylas, 2022) are therefore considered in an analytical manner (Ellis & Bochner, 2006; Gill, 2014; Sundler et al., 2019), where I consider how the facets and technologies of neoliberalism (Chapter 2) which have gradually come into focus, may have been learned, embedded, reinscribed and reinforced and therefore function through the sequences of vignettes depicting multiple decades of my life.

In line with my previous analyses, my threads of reflection are also attentive to a methodologically reflexive dimension, situated initially as ideas which emerge from my collection of vignettes, I will continue to be mindful of inter-relationships between neoliberalism the form and function of my autoethnographic work (Humphreys, 2005; Pitard, 2017). I will continue to reference to other authors' arguments which are in alignment or conflict with my own while contemplating how my use of vignettes and autoethnographic findings might speak to those of other researchers and their methodologies.

Narrating my life through the language of neoliberalism and affects

It has become quite apparent that despite the relative intellectual freedoms afforded by my employment at a university compared to the intense oversight of my previous school teaching, and of course my authorial control over the development of this doctoral study, I have frequently noticed my approach to reflecting on experiences and expressing my thoughts to be strikingly constructed within a frame of neoliberal reasoning (Peck, 2010a). The choices I have made in authoring my story, my recollection of poignant events which I hope will resonate with my audience, and the points of argumentation that I intend to be comprehensible to the reader, seem to rely on tacit understandings of the marketisation of education and performativity (Apple, 2006; Ball, 2003) and an awareness of the dominant "lingua franca" of quantitative reasoning that has permeated my life in formal education (Hite, 2001, p. 17). I am therefore led to ponder the extent to which my sense-making – as represented in my approach to narration – has been shaped and reinforced by my experiences as an educational practitioner, statistician and researcher, as Kelchtermans describes:

Throughout their careers teachers develop a personal interpretative framework: a set of cognitions, of mental representations that operates as a lens through which teachers look at their job, give meaning to it and act in it. This framework thus guides their interpretations and actions in particular situations (context), but is at the same time also modified by and resulting from these meaningful interactions (sense-making) with that context. (Kelchtermans, 2013, pp. 384–385)

I therefore reflect on my approach to the writing of this thesis – my creation of vignettes and the broader research narrative for my imaged audience – to be a product of the interpretative framework (in Kelchtermans' terms) that I have developed over the years of my life, while simultaneously being a narrative account of the same formative experiences. Consequently, I am reminded of how my approach to carrying out my analyses and structuring this thesis, as further interactions with the contexts I have explored in this study, may be similarly shaped by a "lens" of neoliberal reason.

While I will return to some of Kelchtermans' (2013) finer details on narrative sense-making of teachers' experiences later, here I am most concerned with how I understand such neoliberal influences to have become so pervasive to the way that I recount and make sense of my life, and therefore represent what Valero et al. articulate as "affective subjectification" (Valero et al., 2019, p. 136), where:

the neoliberal ethos is embodied in the doings, actions and emotions of the people involved in everyday work ... on one hand, an affect of anxiety, insufficiency, competitive entrepreneurship, and violence, and, on the other hand, an affect of positive optimism, selfimprovement, and contempt. It is in the constant interplay of these ambivalences that mechanisms for effecting precarious neoliberal subjectivities are to be found. (Valero et al., 2019, pp. 136–137)

While I am aware that the entire set of affects described by Valero et al. are to be found in multiple vignettes, their rich and multifaceted conceptualisation also leads me to focus on the "interplay" between them in my narrative as an entry-point to my threads of analysis, through which I will unpack further intertwined aspects of my study.

As I will expand upon shortly, across my series of vignettes I increasingly decry what I come to see as the nefarious, creeping influence of neoliberalism, even though I would not have described it as such until much more recently than the times depicted in most of my chapters, as they were prior to my exploration of neoliberal ideology and related concepts in the extant literature for this study (Chapter 2). While I have subsequently utilised the term neoliberalism in a descriptive manner in my codas to each of the preceding chapters (Sundler et al., 2019), I can nevertheless identify my increasing concern with neoliberalisation (d'Albergo, 2016) across the chronology of my vignettes. My increasing emotive nature of my recollections and depiction of negative affects within the vignettes themselves (Anderson, 2016; Zembylas, 2022) becomes explicitly attributed to my growing awareness of influences this may have had on my earlier life (Anderson, 2016; Valero et al., 2019) alongside growing worries about a slow yet coercive inculcation of neoliberal rationality into in my surroundings, constraints on my agency in these spaces, and even my approach to making sense of myself and the world around me (Curtis, 2013; Leyva, 2019; O'Flynn & Petersen, 2007; Viggiano, 2019). At other times I direct my judgements inwards, depicting my movements towards alignment with neoliberalism as a more personal failing, a sign of weakness in surrendering to such influences. This type of emotive conflict throughout the collection of writings - the interplay between affects noted by Valero et al. (2019), earlier – is often often tied to my depiction of agentive decision-making in the vignettes, and is also implicated in some of my positioning in relation to the extant literature in my analytical codas. Cumulatively, these aspects of my writing give rise to the threads of learning which – having built to my lengthiest vignette so far – I will now draw upon and summarise in this chapter. In the threads to follow, I will therefore identify the specific instances where these ideas begin to emerge across my bricolage of writings.

Thread 1: A subtext of surrender; survival, defeat and "neoliberal creep"

To locate the start of my first thread of reflection, I return to Ball's work once again (Ball, 2003, 2012, 2015, 2016) – one of the original provocations for my line of inquiry in the first place – not only for their commentary on the structures of neoliberalism underpinning educational settings that I have been exposed to over my life, but particularly for the duality Ball constructs between a human-ethical orientation and performativity as incompatible, counterposed frameworks for rationalising and guiding individual educators' actions. In his flippantly-named "I-spy Guide to the Neoliberal University" (Ball, 2012, p. 17), Ball notes that:

Increasingly, as we adapt ourselves to the challenges of reporting and recording our practice, social structures and social relations are replaced by informational structures. We are burdened with the responsibility to perform, and if we do not we are in danger of being seen as irresponsible. (Ball, 2012, p. 19)

This leads me to notice in my own writings how my attempts at self-affirmation can be problematised to identify tensions between their purported form and subtextual function (Barthes & Duisit, 1975; Josselson, 2011): Though I hope to resist the influences of neoliberalism by striving to foreground the "social" aspects of work as an educator that Ball (2012) alludes to above, my written argument is systematically and repeatedly undermined by the way I situate such principles as being inherently countermanded by a neoliberal zeitgeist. Concerns for students and colleagues are typically displaced by concerns for self-preservation, an adherence to managerial priorities as a means to remain secure in employment. Consequentially, my writings are simultaneously cathartic while also becoming profoundly disempowering, giving voice to my concerns while being consistently deferential to the ultimate dominance of reductive performance metrics: **a subtext of surrender**, the first of the threads arising from my bricolage for further reflection.

As I begin to explore subtexts – "implications below the surface" (Madison, 2023, p. 42) of my collection of vignettes and analyses – I am drawn to the words of Brooks et al. which seem quite apt to this first thread of my concluding discussion, who suggest that "Surrender comes about as a result of internal pain and a personal admission of powerlessness" (2013, p. 378). Indeed, I feel that my resignation to an eroded sense of hope for contextual change as an educator speaks to precisely such feelings, and – as Valero et al. note in their autoethnographic exploration of "affective subjectification in precarious neoliberal academia" (2019, p. 135) – my "survival is constructed not as moral survival but as [an] economic one" (2019, p. 149). The notion of surrender arises most prominently in the following sections and layers of my bricolage:

• Chapter 5: Recounting my years of undergraduate study, my vignettes and analyses depict acceptance of a utilitarian view of education, responding to

struggles with the notion of academic failure. My review and analyses align my self-characterisation with neoliberal ideals of being a responsible and performance-oriented student, but reflective elements of my analysis also position this as disappointing and unsettling from my more recent perspective.

- Chapter 9: Telling of more recent events, the subtext of surrender is prominent in my characterisation of other (fictionalised) actors who must either surrender – perform in line with the expectations of management at a teaching institute – or be defeated, withdrawing from their teaching position entirely.
- Chapter 11: I frame my turn to utilitarian, instrumental "practical" activity in teacher education over scholarly, critically reflective pursuits – consciously linking this to my own experiences as learner and teacher – as a reluctant, disappointing acquiescence. Further still, the conclusion to my analytical coda incorporates a brief reflection on how I have come to accept that neoliberal thought seems to be permeating my approach to writing about my life.
- Chapter 12: I continue to foreground a reluctant yet seemingly inevitable turn towards utilitarian pedagogies and the importance of prioritising desirable, measurable learning outcomes (examination results) in statistics education, extrapolating these thoughts even to my own doctoral studies. Where the vignette ends, and the analysis continues alongside the voices of past student teachers as a complement to those of my own and the literature, I narratively construct a vision of the contemporary educational context in the neoliberal form, which precludes current and future generations of student teachers from being able to problematise and address matters of critical pedagogy. I downplay some of the positive aspects of student teachers' voices, projecting my own expectations of surrender.

Brooks et al.'s depiction of surrender (2013) as a complete and lasting acquiescence to powerlessness is strikingly in alignment with themes I have noticed in my own writings: "participants... were led to surrender by fear..." and even that "spiritual surrender is a willingness to recognise one's human powerlessness and acknowledge the power of a higher authority" (2013, pp. 378–379). Although Brooks et al.'s research addresses a significantly different context and topic, exploring the experiences of substance-addicts and their path to survival and recovery, their identification of surrender as profoundly

powerful narrative and psychological devices serves as a remarkably effective analogue for the thoughts arising from my continued re-readings and reflections on the forms of neoliberalism characterised in my own vignettes and analyses.

The rationality of Brooks et al.'s (2013) line of discussion is strikingly congruent to Ball's suggestion that failure to surrender to the higher authority of neoliberal governance would indeed be deemed "irresponsible" (Ball, 2012, p. 19), nonsensical and ultimately deleterious. Further, holding an intense and sustained attachment to a fear of failing to conform with a normative characterisation - one that I have depicted throughout so many chapters of my life-story – is a powerful and logical motivator for capitulation in both Ball's (2012), Valero et al.'s (2019), and Brooks et al.'s (2013) arguments. I notice in the latter case, as I continue to draw parallels between disparate contexts, Brooks et al. explain how their participants must totally accept and internalise a constant fear of failure as the key mode of thought which will allow them to remain healthy, recovered from their otherwise negative, self-harmful tendencies. Their participants' form of surrender was therefore described as a total, lasting embrace of an identity as a recovered addict so that they might find a healthier, positive way forward with life in this new paradigm (2013). A fearful discourse is therefore placed as an acceptable and logical component of survival, much as Ball, Valero et al. and myself seem to place so centrally throughout our writings (Ball, 2003, 2012, 2015, 2016; Valero et al., 2019). Stretching my use of Brooks et al.'s (2013) work as a metaphor to its conclusion then, I notice that in several chapters I have acknowledged how a complete submission to the neoliberal ideal might indeed be a highly productive way of life for some, embodied in the nonchalance of the Rick character in my stories of school-teaching (Chapter 9).

As a structural device in my writing, the notion of surrender highlights how consistently any of my thoughts on 'good', meaningful teaching – a humane care for learners, authentic investment of self in the teacher-student relationship, and a nurturing of critical and independent thought – are consistently set in tension or outright opposition to what I describe as norms of the profession across levels and contexts. I therefore notice how it is logically, and in the literal terms of my autoethnography, narratively consistent that some of the most negative, disappointing moments depicted in my storying are those which undermine the possibility of realising my idealistic visions of good education. The instances where I notice the loss of opportunities to act on, or in line with, my espoused principles, even when some of these constraints are described as indomitable or internalised, serve to diminish my depiction of agency over the chapters of my thesis. However, in a cruelly optimistic way (A. Moore & Clarke, 2016), while I occasionally acknowledge the possibility that my hopes may never be fully realised, the narrative construction of an idealised educational form never completely disappears from my storying either.

I therefore read the lingering disquiet and the tone of my penultimate vignette (XI) as a further representation of my stubborn, if rather exhausted, resistance to accepting a mandated, narrowed outcomes-oriented vision of education as being truly desirable and personally fulfilling. I seem to refuse to represent them as such in my writings; a total embrace of the neoliberal ideal is ultimately inconceivable despite leanings or musings in such a direction. Instead, my writings seem to mostly centre on varying degrees of conscious, disconcerting compromise: "strategic" compliance as part of becoming a teacher, in Lacey's terms (1977). That I would continue to hope in vain to be the arbiter of a more substantial and meaningful resistance is a feeling captured neatly by Clemitshaw, a former history teacher-educator reflecting that:

I cannot prepare teachers to be cultural vanguardists, as I might have considered possible in an earlier manifestation [of history teacher education], attempting to secure an end to false consciousness and a realisation of the hidden hand of history in need of commitment to emancipation. If such teachers enter the profession, I cannot help but speculate on the frustration, bewilderment and disillusion that, it seems to me, they are bound to experience. (Clemitshaw, 2013, p. 277)

Clemitshaw's words of resignation not only reinforce my own, but they lead me to reflect further on the potential depth or extent of an inevitable surrender to neoliberalism being depicted in my later writings. Describing my work in teacher education, not only have I become concerned and frustrated at my limited efficacy for supporting students to recognise and act against the most deleterious influences of neoliberal performativity in schools, but I also seem to have developed heightened propensity for noticing how I "at times, even [as an author] who personally identified with the critical/liberal definition [of higher education] began to employ neoliberal rhetoric or practice" (Viggiano, 2019, p. 253). Indeed, it is a realisation through the heart of this thesis that such ideas have slipped so nefariously into the core of my own sense-making and even my actions as an educator, a phenomenon which Viggiano names "neoliberal creep" (2019, p. 253), that has eventually grown to become such a prominent source of disappointment, particularly when I extrapolate these thoughts to the student teachers following my own footsteps.

I am again led to a conflict between my rhetorical stance and the reality of my decision-making, reinforced by my more recent work as a teacher educator where I am simultaneously positioned as insider and outsider to the teaching profession (Nakata, 2015), observing, experiencing and actively engaging with problematic relationships between externally mandated assessment measures and individual teachers' growth and fulfilment (Ambrosio, 2013; Bacevic, 2019). While I wish to not be judged negatively by performance management systems that I am situated within, I hope to protect student teachers from some of the potentially detrimental impacts of learning to survive in such performative contexts (D. Hall & McGinity, 2015; Holloway & Brass, 2018). However, despite depicting attempts to mediate what I have come to identify as processes of neoliberalisation in education (d'Albergo, 2016, and noted in my chapter summaryextracts earlier in this thread), the persistent subtext of surrender across my vignettes is therefore illustrative of the functioning of governmentality (Byrne, 2017). The roles of teacher and teacher educator in particular lead me to realise my own place in implementing and reinforcing the technologies of neoliberalism (Thread 3): having internalised and accepted the need to navigate the hegemonic neoliberal rationality of the educational policy contexts and institutions I have experienced, I operationalise this knowledge to guide others to enter and survive the teaching profession (Perryman et al., 2017; G. Williams et al., 2020), even encouraging others' surrender in the face of substantial affective and ideological tensions (Chapter 10 and Thread 3) when no alternatives seem to be possible or reasonable (Golden, 2018; Noonan & Coral, 2015; Rudd & Goodson, 2017).

Reflecting on this first thread of my second-level analysis, I am led to consider intertwined aspects of my preceding chapters and narrative features which seem to be closely related to the subtexts of surrender and survival. In my second thread of discussion, I review my use my introspective writings as a confessional space, identifying guilt and dissatisfaction not as entirely distinct ideas to those I have explored so far, but closely related representations of affective subjectification as constructed in my vignettes: complementary facets of my thesis in response to my research questions (Barbosa Neves et al., 2023; Ellingson, 2009, 2014).

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Thread 2: Confession, guilt and dissatisfaction

As a complement to my first reflective thread, and another facet in the crystallisation of ideas (Ellingson, 2009, 2014) constituting my experiences of affective subjectification (Chowdhury, 2022; Valero et al., 2019) within the context of variegated neoliberalism emerging in my research, I will briefly summarise areas where I have identified and reflected on the use of negative emotive representations such as guilt, self-dissatisfaction and regretful confession:

- Chapter 7: The notion of confession is particularly prominent in my analysis of this chapter as an important device of self-representation, depicting a self which is morally troubled by acquiescence to performativity-oriented teaching practices which gave rise to the subtexts of surrender in my first thread, above.
- Chapter 5: Drawing together my analyses of two vignettes, I identify my narrative construction of a world which seems to be "cruel' or 'unforgiving'" (Chapter 5, quoting A. J. Grant & Zeeman, 2012, p. 8) despite subsequent reflections to the contrary, and that my creation and reference to such a device is in alignment with neoliberal "imperatives that promote a sense of guilt and self-dissatisfaction" (O'Flynn & Petersen, 2007, pp. 468–469, citing Walkerdine et al., 2001, my emphasis).
- Chapter 8: I note a similar tone of admission to Chapter 7 when describing my willing exploitation of performance-oriented education and institutional management priorities, even if tenuously framed as my means to achieve a more noble goal of making statistics education available to learners who may genuinely benefit from such skills and qualifications. This particular narrative confession also leads to an analytical note of "cruel optimism" (Chapter 8, quoting A. Moore & Clarke, 2016, p. 672) suggesting that my aforementioned operationalism and reliance on the structures of neoliberal performativity to enable my teaching of pre-university statistics simultaneously precludes the possibility of realising critical statistical literacy education in a richer, idealistic form.
- Chapter 10: In these later chapters of my life writings, I seem preoccupied with the notion of failure, with the term being placed deliberately as a benchmark for my self-judgement which follows. I describe a moment of epiphany, failing to

substantially effect critical change for a student teacher who are themselves depicted as sitting outside the neoliberal norm. In my analytical coda I note different possible functions of such confessional writing including supporting my elucidating theorisation from lived experiences and associated cathartic self-care.

As has become quite common by this stage of my writings, I feel uneasy about the rather depressing and cynical tone of some of my vignettes, and how readily attempts at emotive autoethnographic exploration of neoliberal experience may be dismissed as not only egotistical but even as unproductive academic folly (Cooper, 2008). However, I have also come to realise that such worries are a necessary, inherent risk arising from my every attempt to develop a "self-referential" understanding of my experiences and narratives (Baert, 1998, citing Foucault, 1990). Attempting to make sense of the emergence of affective dimensions of my writing is inherently complicated by my acknowledgement of how my present life and self are intractably bound to and within the layers of storying and analysis in this thesis. My worries therefore arise in my conscious questioning of dominant and well-established systems of governance that I adhere to, live and think by for survival as a contemporary citizen which, as previously surmised, is entwined with my storying of performing as a learner and employee (Peck, 2010a; Ball & Olmedo, 2013; Edmond, 2017).

I feel that there is a degree of inevitability, or at least a logical coherence in the alignment of my first two threads of discussion here, that feelings of guilt or frustration emerge repeatedly over the course of my writings, much as Tienari similarly noticed: "I do not have a single 'epiphany' that has significantly impacted the trajectory of my academic life. It is more like a gradual process of developing anxiety and a sense of guilt" (Tienari, 2019, p. 582). It is this gradual emergence which led me to autoethnographic research and bricolage in the first place, attempting to glance at the where and how I have come to position such affective aspects into my vignettes. This second thread of analysis therefore serves as a reinforcement and complement to the first rather than a substantively new direction for my thinking. The identification of confession, guilt and dissatisfaction seems to be a very closely related expressive facet of my affective experience, not so much as a reinforcing device in my depiction of subjectification to neoliberal rationality, but a negative consequence of my growing self-awareness and accumulating frustrations (Tuck, 2013).

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Exploring this interplay between self-awareness and reasoning within my vignettes also prompts me to consider a methodologically reflexive point of learning which I might draw from this thread. Baert proposes the use of Foucault's notion of "history of the present" as a device for working towards a growth of "self-referential knowledge" (Baert, 1998, p. 124, citing Foucault, 1990) and indeed I feel this is one way of viewing a function of my thesis holistically, going some way to overcome the challenges posed by the aforementioned constraints on my thoughts and actions. I have sought to document aspects of my personal history and have arranged my chapters leading to this final vignette as a means of "undercut[ting] the present" (1998, p. 124), as Baert goes on to explain how "it allows people to liberate themselves from culturally induced constraints... erodes present structures by making them manifest, by showing them to be neither universal nor coherent" (Baert, 1998, p. 124, citing Foucault, 1990). It is only in the closing stages of my writing that I appreciate Baert's words in the context of my bricolage of vignettes and analyses, and the overarching narrative of my research thesis.

As I move towards the third of a triad of closely related threads, I will turn my attention to another facet of my storying, where my vignettes reinforce literary tropes which seemed to frequently appear even in my earliest readings around neoliberalism in education (e.g. Apple, 2006; Ball, 2003; Ball & Olmedo, 2013; Davies & Bansel, 2007; Giroux, 2005). As previously explained, the writing of my vignettes preceded any process of formal analysis (Chapter 3) yet I will not claim unrealistically that I will have been able to hold my broad understandings of neoliberalism in complete abeyance when authoring my life stories (Kordes & Demsar, 2023). Instead, in the form and substance of my writing I recognise the methodological effectiveness of continually alternating between voices of past and present, along with encounters with a cacophony of others from the extant literature across theoretical traditions (Kincheloe, 2005; Kincheloe & Berry, 2004) in order to disrupt my initially naïve conceptualisation of neoliberalism and my awareness of my positioning as a teacher and teacher educator.

Thread 3: Reinforcing, reinscribing and disrupting existential neoliberal tropes; anxieties of a performative, responsible entrepreneurial self

This thread emerges from some of my most highly emotive stories and analyses which align them with the affective dimensions of neoliberal subjectivity explored in my literature review (Chapter 2) and preceding threads of discussion, initially emerging across the following chapters of my bricolage:

- Chapter 4: The first of my vignettes depicts a responsibilised, entrepreneurial manager of the self even in the earliest stages of educational experiences appearing in my writings. In this instance I inscribe the notion of academic performance intentionally within a piece ostensibly exploring my selfidentification as a school pupil. In the analytical coda to this chapter, I identify my use of conciliatory and dominant discourses in my narrative as storying my life in a manner which is congruent with neoliberalism, centralising my self-evaluation and responsive adaptation to educational success and failure in concordant terms.
- Chapters 5 and 6: The narration of self-understanding through the lens of neoliberal performativity continues from the preceding chapter, across my experiences as a learner and into my training as a professional educator, becoming increasingly prominent and couched in more strongly emotive terms, raised in the analytical coda as a "life... made possible and constrained by constant imperatives to be and do more" (Chapter 5, quoting O'Flynn & Petersen, 2007, pp. 468–469).
- Chapter 8: Moving into later chapters of the bricolage, I depict a growing awareness and pragmatic, strategic navigation of neoliberal organisational structures in my professional work as a teacher. I draw together performativity and accountability measures more clearly as interdependent and I depict these as part of a unified ideological framework of neoliberalism. The analytical coda to the chapter also directly draws links between ideological concepts and narrative representations of neoliberalism, positioning my own actions as an educator as integral to the continual reinforcement of neoliberal ideals.
- Chapter 10: Continuing the moves above to elaborate my understandings of neoliberalism, my coda characterises a neoliberalist student teacher stereotype emerging in my narrative vignettes, counterposed to the image of a critical pedagogue (e.g. Fraser & Lamble, 2015; Giroux, 2011). I relate these characteristics to the extant literature on neoliberalism in education, associated rhetoric of performance and standardisation, and – once again reflecting across

educational levels and contexts – the codification of teaching and teacher education.

 Chapter 12: Negative stereotyping continues to be used as a device for elaborating and articulating my thoughts on how neoliberalism in education may be ubiquitous and reinforced through the contexts and mechanisms of teaching and teacher education. The analytical coda positions such negative, potentially derogatory and deleterious characterisations in opposition to the positive potential of teacher educators' writings (Graven, 2011).

Education or indoctrination, and my role within

I remain mindful of my context during the process of writing my vignettes, working as teacher educator with professional responsibilities which relate to many of the spaces, characters and relative positions depicted therein. In this thread of reflection, I therefore consider a rather profound and worrying question: whether it is appropriate to consider the various roles and activities in my vignettes – my experiences of learning and work as a teacher and teacher-educator – or perhaps even the function of the narrative itself as facets of becoming and being complicit in the reinforcement of neoliberal ideals (Ellingson, 2014, see also Thread 1). These are ideas that I have suggested to have become quite dominant and constraining in my own thinking, what Alexander describes as indoctrination:

If education entails nurturing the awareness of the moral potential inherent in each person, indoctrination involves undermining that potential by denying access to the conceptual tools necessary for its realization. Just as education is necessarily an ethical activity, indoctrination is inherently amoral because it undermines the conditions required for ethics and moral discourse to make sense. (Alexander, 2005, p. 10)

Where Alexander's thoughts strike most resonant with my concluding vignette seems to be through the subtle, subversive and almost passive way my educational intentions seem to become contorted into inadvertent acts of indoctrination, yet also how my narrative ultimately elides any alternative outcomes. I note how it is the denial of spaces or avenues for critical pedagogy which I find to be the most pressing worry rather than the plentiful literature concerned with more overt moves to guide educators and learners to neoliberal priorities such as explicit attempts to nurture cultures of consumerism, commodification of educational outcomes or qualifications and competition between learners (Giroux, 2011; Kincheloe, Hayes, et al., 2011; Clemitshaw, 2013). My contemporary position as teacher educator means that I am repeatedly witness and arbiter of a relentlessness reinforcement of these ideas, strongly implying that personally prioritising adherence to such requirements will have the greatest chance of allaying fears of underperformance or dismissal, again for myself and for my student teachers (Thread 1). This act of surrendering once again in my writing captures processes of individualisation and subjectification that I explored in my initial review of literature, what Holloway & Brass strongly and effectively summarise as:

the powerful effects that such [neoliberal education] systems can have in terms of producing new teacher subjects who no longer see the system as 'out there' but as constitutive of their professional knowledge and subjectivity... the naturalization of standards and accountability discourses ... provides an acute depiction of the ways in which neoliberal policies might fundamentally transform teaching and teachers. In this transformed subjectivity, the opposition between the subject (i.e. the teacher) and the accountability regime has been dissolved as teachers are disciplined, and discipline themselves, as marketized, managed, and performative teachers. (Holloway & Brass, 2018, p. 378)

Even now, after years of writing and thinking about these issues, I feel conflicted about how this might position me in relation to Watts (2022) criticisms of recent studies of neoliberal subjectivity and careless transposition of individuals' affective relationships into mechanisms of governance. I will therefore continue to explore this thread of vulnerable, negative thought in order to develop a more self-referential understanding of my narrativisation of experiences (Baert, 1998).

I worry about the extent to which I have become so dominated, so consumed by this way of thinking and how the signs of my acquiescence are by-now so well-established throughout the chapters of my life story. Though I would hope to be respected for acting with integrity and decency in my work, my writings ultimately establish a view that some of my thoughts on critical pedagogical potentials might be incompatible with the contemporary education paradigm as constructed in my vignettes. Further, my personal guiding principles and affective responses to my lived experiences must be demoted to only peripheral concerns in relation to the dominance of institutional expectations. I therefore re-read the words of my final climactic vignette with heightened concern at my vulnerability in the narrative, how readily I equate "survival" with "remaining in employment" and therefore lend such great controlling power to anything which might threaten my unequivocal adherence to neoliberal priorities. It has again not been difficult to find authors from the last decade who highlight similar concerns over such externalinternal existential dialogues:

the precariousness of academic employment means that many of us have adopted a survival mentality akin to the familiar air safety instruction: 'put on your own oxygen mask before helping others'... As much as this grates against ... personal politics, we are constantly prodded to play by the rules of this neoliberal game to ensure the viability of our schools, and our own ongoing job security. (Klocker & Drozdzewski, 2012, p. 2)

vulnerability is closely tied to individual responsibility, and is central to neoliberal subjectivity – workers are **disposable** and there is no obligation on the part of the 'social fabric' to take care of the disposed. Therefore, the neoliberal subject becomes both vulnerable and necessarily competitive. The notion of responsibility is shifted over to responsibility for **individual survival**. This survival is constructed not as moral survival but as economic. (Brunila, 2014, para. 2, my emphasis)

Arising from my longstanding and growing feelings of precariousness and vulnerability, my prioritisation of economic survival (gainful employment) becomes powerfully countermanding towards what become distractions of thinking and acting critically, questioning what seem to have become deeply engrained socio-cultural norms (Holloway & Brass, 2018; Shpeizer, 2018) or more broadly espousing a social justice dimension to the work of a teacher (Ball, 2003; Ball & Olmedo, 2013; Giroux, 2011).

Reflecting on my first three threads of analysis in this chapter, each a subtle refraction of the neoliberal subjectification that I have storied in my vignettes, leads me to a sense of enclosure: each of the threads I have explored so far seem to be deeply interdependent yet profoundly effective in combination for sustaining a negative affective position while simultaneously reinforcing the hegemonic power of neoliberalism (M. Clarke & Phelan, 2017; Teo, 2018; Tuck, 2013). In the threads to follow, I therefore branch slightly outwards from the analysis so far to further features arising from my bricolage which may illuminate further implications and interrelationships.

Proceeding from the problematic of my differential positioning in relation to other actors in my vignettes, I will briefly consider how I use devices of othering and self-othering in my writing (Thread 4) in a way which complements the threads so far. However, this is intended only a brief aside before progressing to the concluding three threads of my analysis which explore forms and flows of knowledge within the contexts I have depicted in my vignettes (Threads 5, 6, 7). For example, I am led to wonder how the repeated worries of deception and subversion of agency which arise from the personal and professional experiences I have documented may also be represented in my

thinking around statistical literacy, and indeed my motivation to incorporate this into my vignettes as part of this study. My musings over the distortion of pedagogy into indoctrination is not entirely dissimilar to a view of statistical literacy as a notionally neutral pursuit with the potential to be sanitised of its critical emancipatory potential. While I will return to these specific examples shortly, I will briefly identify my how my storying utilises devices othering, self-othering, belonging and difference in relation to groups which are occasionally explicitly defined (e.g. "good teachers") or otherwise discursively implied, which I will again argue to be conversant with aspects of neoliberal reason (Knijnik, 2002; Petersen, 2008).

Thread 4: Othering, belonging, difference and norming

In just a brief summary, I will reflect on how narrative devices of othering and selfothering are identifiable across several chapters of the thesis. In some cases, these are linked in more explicit terms in my narrative to themes of socialisation and belonging in professional or academic communities of practice:

- Chapters 4 and 5: I tend to position myself as superior to hidden others in terms of educational performance, being able to "coast" to success in earliest phases of my education at least. Later in the pair of vignettes covering my transition to undergraduate study I also position myself in the inferior space of underperforming, all in relation to narrow, assessment-focused signifiers of success and fulfilment in education.
- Chapter 7: Recalling my early years as a professional teacher, I develop an aspirational characterisation of a "good teacher", albeit in-the-making. My analytical coda identifies strands of narrative identity-work and aspects of socialisation, reflecting on my positioning as insider or outsider relative to the narrow characterisation of others during the periods depicted in the vignettes.
- Chapter 9: In one of the most intentional (and ethically challenging) instances of othering, fictionalised characters are used to illustrate my alignment with a virtuous yet victimised educator counterposed to a much colder, performanceoriented and less-human vision of teaching.
- Chapter 10: Building on the previous chapter's characterisation, I develop a more substantial conceptualisation of what I consider to be normative goals and approaches to education across schooling, teaching and teacher education. This

leads to consideration in the coda of non-normative, so-called queer pedagogies, again in alignment with the othering and self-othering dynamics emerging in previous chapters and the norming function of my narrative.

- Chapters 6 and 7: I depict an emotional relationship to the notions of belonging and difference, both implicating narrative othering in their definition of characteristics which set myself or groups as distinct to others, typically in hierarchical terms. Difference is often positioned as a mechanism of personal comfort, a device for coping with adversity in the early stages of my life, and even in my early experiences as a learner by outperforming those around me, or having specialist subject knowledge dissimilar to other practitioners. Othering and selfothering appear in several forms through a short narrative, constructing a changed self, transforming from an unproductive, unmotivated and fearful student practitioner to a more professional and successful teacher. In the latter chapter, socialisation is proposed as a mechanism for inducting me into the preferential image portrayed in my writings. Towards the end of each vignette, I am positioned as out-performing others, albeit hidden and implied in the text, by moving to a superior institution of employment or quite literally in outright quantitative measures of performance. These threads are addressed not only in the analytic coda but also continue through later chapters of my life writings.
- Chapters 11 and 12: These chapters are situated initially within the space of teacher education, with the latter section drawing on my interests in statistical literacy teaching. I position theoretically informed, research-curious and statistically literate student teacher stereotypes as superior to those characterised as having a more superficial interest, requesting algorithmic or otherwise simplistic input on teaching methods rather than crafting pedagogy for the complex space of the classroom. I extend my judgemental stereotyping towards those who would perpetuate the simplistic dichotomies I have constructed, such as professional development advisors who might make complex research more palatable for teacher-consumers. Ironically, this seems to place me on the instructive, governing side of teacher education in the expectation that my students become more responsible for their own success and failure.
- Chapter 13: I draw on my previous vignettes to make a clearer pronouncement of my position on teaching as a caring profession, and my beliefs are that a good

teacher must embrace investment of the self, foregrounding a caring and critical disposition as a counter to the colonisation of neoliberal priorities into the ways teachers relate to themselves, the potential of their roles, to the others in their communities of practice and to learners in their charge.

Othering and self-othering

On reflection, I am not entirely surprised that narrative othering emerges as a common thread following the inclusion of characters – explicitly or implied – in my vignettes; I prejudicially position groups or individuals in a dualism of "civilised-uncivilised, developed-undeveloped, human-not human" (Mills et al., 2010, p. 636) as a reflection of their hierarchical positioning in my storying of events and contexts of interest. Furthermore, as narrative devices, the way that I have intentionally applied such elements as a support for the verisimilitude of my storying and analyses strongly implies an authorial expectation that my imagined audience will be able to easily recognise such characterisations in alignment with the logic of a marketised, neoliberal view of education (Badley, 2015; Rath, 2018).

Discursive othering seems to transcend the layers and threads of my analysis in being a specific matter of relevance to my negotiation of subject positions within the framing of neoliberalism. Much as Charteris et al. (2017) conclude in their collective biographical research on their experiences of casual work in Australian schools, the construction and hierarchical positioning of others within life writings is something that I see as aligned "with the politics of market-related performativity" (2017, p. 104) and – rather worryingly – could even be read as fitting Layton's remarkably pointed, harsh depiction of a "narcissistic and amoral, empathy-lacking character … [which is] normative in a neoliberal culture" (Layton, 2018, p. 13). While these are rather strong terms, I notice that I refer to some of my own egocentric storying in similarly self-effacing ways in my analytical codas.

As I briefly alluded to in the introduction to the thesis, Chowdhury helpfully applies the notion of othering to the self, describing an "affective-discursive 'pruning' of neoliberal selves" (2022, p. 205) as a useful interpretation and application of narrative othering in the context of neoliberalism studies (Krumer-Nevo & Sidi, 2012; Sparkes, 2007; Sparkes & Smith, 2012; Vanderhaeghen, n.d.). Though Mills et al. (2010) suggest that othering is commonly an inadvertent implication of authorial positioning of

superiority, instances of self-othering in my vignettes, similar to Chowdhury's analyses (2022), often position my authorial self in inferior terms, e.g. at risk of underperforming in relation to an idealised neoliberal subject or failing to realise utopian visions of critical pedagogy.

I am mindful of how this brief thread of discussion prompts my thinking around not only the substantive content and form of my vignettes but again a reflexive consideration of my research process and thesis as I reach the conclusion of my studies. I have recognised how my reflections on the methodological and authorial-presentational decisions which might situate my research outside of academic norms, or my selfdesignation as a junior academic, once again reflect what Peterson describes as othering "discursive practices and subject positions in academia" (2008, p. 394) with a strongly neoliberal tenor (Becker et al., 2021; Chowdhury, 2022; Krautwurst, 2013; Rudd & Goodson, 2017). Thus, I notice even the top level of my guiding commentary of this thesis seems to reflect similar forms of self-othering to those in my autobiographical vignettes and analytical codas. I will now turn my attention to my concluding trio of threads where I consider epistemological aspects and implications of my autoethnography, including the longstanding presence of statistics as an educational pursuit in my life along with my turn towards critical thinking.

Thread 5: Reframing agency as a performative, quantified self

In this thread, I reflect on how more positive framings of competitive performance emerge across the following chapters of my bricolage in a way which reframes agency – my own and that of other characters – within the neoliberal principles of performativity and a quantified self (Moore & Robinson, 2016, citing Foucault, 1998). I reflect on these matters as further complementary facets of the affective subjectification I have explored in Threads 1, 2 and 3 (Holloway & Brass, 2018; Valero et al., 2019) emerging as a powerful mechanism for the entrenchment of neoliberal rationality across the contexts depicted in my vignettes.

• Chapters 4 and 5: The narrative depicting the earliest chapters of my life in education constructs an idealised image of a responsibilised, entrepreneurial and generally highly performing learner. The subsequent analytical coda explores how the text reveals various facets of the neoliberal ideal supportive of the responsibilised self where all possible potentialities and outcomes are

constructed as my own agentive choices, including subtle strategic shifts in the framing of personal achievement goals and a broad characterisation of self-efficacy as a learner. These aspects of the story are typically framed in strongly emotive terms, closely related to representations of wellbeing and fulfilment.

• Chapter 6: This vignette and analysis addresses a particularly prominent, transformative episode, depicting my acceptance of performance-oriented working as an unexpectedly fulfilling aspect of practice as a teacher, with the analytical coda identifying several strands of the neoliberal performativity discourse subsumed into my narrativisation. The vignette depicts a gruelling and unpleasant time, counterposing happiness through the embrace of a productive work ethic with intense fears of outright failure. Building on the preceding chapters, the narrativisation of these experiences is identified as a sign of concentrated identity-work, writing my self-characterisation in(to) the language of neoliberalism.

One of the prime indicators of neoliberal alignment in my stories has been in my personal and professional decision making as captured in the vignettes of this thesis where, for example, I feel as though I have consistently bowed to the demands of my educational contexts and by implication give deference to the measures they use to determine my compliance and performance. As Pereira suggests, "performativity leaves aside personal beliefs for a calculated existence that is promiscuous and enterprising for the sake of excellence" (Pereira, 2018, p. 494) in a manner that I frame as being completely counteractive to my sense of personal fulfilment or wellbeing. Even the presence of self-affirmatory narratives of achievement can be seen as repeatedly talking myself into the neoliberal ideal: I take pains to remind the reader that I have never fallen short of expected performance-measures as a teacher, and my earlier, albeit thankfully rare, academic failures become a source of intense, burdensome disquiet: they are my failures. My frequently fearful refrains and allusion to the precarity of my position as a performing teacher-worker are therefore deeply intertwined with the ways that I come to question what it might mean to be successful and fulfilled in my work, within and beyond my vignettes, and that any failure to succeed will be my burden to bear rather than any consequences of circumstance or context.

Within the self-doubting, responsibilised mindset that I have depicted, my desire for, and responsiveness to, continual reassurance that I may remain in employment becomes a problematic trait in itself for how the most readily-available signifiers of professional success are of course those most closely aligned with the performancemanagement regimes of my educational contexts, with the ubiquity of such mechanisms having the aforementioned profoundly formative effects: "Performance technologies function to re-orient teacher behavior to a set of quality indicators, while providing the ontological frameworks for teachers to know how to be 'good' teachers" (Holloway & Brass, 2018, p. 363). This particular quote strikes me as a personal sticking-point, a stubborn, lingering contradiction that I have worked on through the vignettes and analyses yet remains an unresolved, irreconcilable point of tension and resistance. Despite my disappointment at noticing so many instances of disempowerment and capitulation throughout my time as a learner and educator, my voice even in the penultimate vignette of Chapter 13 remains loudly upset and defiant. As much as I recognise and my internalisation of the "performance technologies" (2018, p. 363, above) that I depend upon for continued employment, I recognise a philosophical, ontological last line of resistance against a complete surrender to neoliberalised thinking, a space of convergence between the beliefs I have constructed around what constitutes a good teacher and the problematics of quantification of such a phenomenon in practice: I learned what a teacher could be through struggle, through upset and through conformity, navigating assessable expectations while also drawing on less explicit, uncodified but nevertheless richer aspects of my experience. Whether as a naïve undergraduate enjoying the storying side of statistics while finding the easiest path to passing my exams, or the schoolteacher helping my students to achieve well in their test while also engaging with less-taught areas of the curriculum which brought me (and, I hope, them) some intellectual fulfilment, that I have been fortunate enough to feel a sense of achievement and pride beyond performance-metrics alone is reassuring, yet this also means that any attempts to remove such opportunities threaten a great emotional loss.

The abandonment of personal fulfilment in deference to institutional demands draws me back to Kelchtermans' words on teachers' self-understandings, speaking to the primacy of educational activities and relationships that have become the sites for the emergence of the central tensions and dilemmas that have given rise to my study in the first place: "The way teachers understand themselves as teachers thus matters, yet this to a large extent is influenced by how others see him/her or what others say about him/her as a teacher (educator)" (Kelchtermans, 2013, p. 383). However desirable such self-referential understandings may be (Baert, 1998), the performative neoliberal environment depicted in my writings, captured as a harsh, hostile space, renders this type of critical, personal awareness heavily constrained. The possibilities of such thinking are positioned as superfluous to my core role within educational institutions, precluding the dedication of time towards individual wellbeing rather than the priorities of employee-productivity (Ball & Olmedo, 2013). Pereira (2018) suggests that this may again be a notable point of learning from my analysis, aligning with their thoughts that:

while there has been much theorization of neoliberalism in education reform and change, the role of care ethics within neoliberalism is under-theorized. Indeed, relations of caring seem to be incompatible with economic neoliberalism so much so that neoliberalism is argued to promote a "care-less model of citizenship". (Pereira, 2018, p. 489)

This is a concerning suggestion, and I will return to the notion of care and harm within the subjectification-spaces I have narrated in a later thread of analysis. For now, I will continue to contemplate the notion of agency within my writings, in relation to restrictions or potentials for myself and others as learners and educational workers to realise alternative visions of education and freedoms to draw on alternative signifiers of value and self-worth.

Moore and Robinson (2016) apply a Foucauldian lens to relate neoliberalism and the quantification of work in a manner that again seems to speak quite effectively my own troubled exploration of subjectification in this context, using the term "Quantified Self at Work" (Moore & Robinson, 2016, p. 2776, citing Foucault, 1988) to capture the scenario I have depicted in my writings and analyses:

The QSW [Quantified Self at Work] is an aspect of subjectification as understood by Foucault as the 'modification of individual conduct, not only skills, but also attitudes'. Subjectification takes a particular form in neoliberalism, in which subjects self-define in terms of their status for the external quantified gaze. (Moore & Robinson, 2016, p. 2776, citing Foucault, 1988)

And indeed, my writing continually speaks to my self-definition and worries about my status as it might be measured in typically reductive, quantitative terms: "a reality performed into being by students, test instruments, and measurement rationality" (Serder & Ideland, 2016, p. 341) regardless of the stage of my life I am speaking of. Though Allen rightly points out that the notion of examination as a core aspect of

schooling is not a recent phenomenon at all (2013), I continue to be concerned by authors who suggest that "the individual in contemporary society is not so much described by tests as constructed by them" (Hanson, 1994 as quoted by Stobart, 2008, p. 1) in totalising, essentialising ways (Curtis, 2013). My vignettes seem to not only depict such processes, but in themselves seem to facilitate the construction of self and others in the requisite form, despite a line of self-criticism, by continually acknowledging the exclusion of alternative possible ways of relating to self and others.

Pausing for a moment to attempt to find a perspective on my layers of narrativisation, I can see a common point of constraint arising from my attempts to engage with neoliberal ideas on the grounds of social justice. For example, I depict episodes where I attempt to engage positively with students who are troubled by their entrance into teaching, or to contemplate the possibilities of critical pedagogical approaches, and my own thesis is an attempt to speak back to what I originally conceptualised as a hegemonic and oppressive influence on aspects of my life. However, each of these attempts seems to not only be limited to troubled reflection rather than realising more substantive agentive potentials but, worse still, incorporated into the outcomes of each attempt seems to be a reinforcement of the very structures which were being questioned in the first place, in quite a sinister, surreptitious way. Zambrana's words helpfully suggest:

ways in which neoliberalism resignifies norms of social justice in an "uncanny" way... since purportedly unambiguously emancipatory norms are not only co-opted by, but deeply implicated in neoliberal ideology... [such as] the neoliberal distortion of the ideal of individual freedom. This central normative achievement of modernity has been transformed in ways that compromise the very possibility of autonomy, turning an unprecedented opportunity for self-creation into new forms of domination (Zambrana, 2013, p. 95)

I find Zambrana's phrasing useful for mirroring the way I the layers of my narrative unfortunately seem to also capture the adept and highly effective manner in which educational institutions seem to maintain a rhetoric of personal freedom yet subtly and efficiently constrain the agency of teachers and learners alike (Bartell et al., 2019; Kašić, 2016; Wrenn, 2015; Zambrana, 2013). When I reflect on the way I depict my own and others' efforts to resist, I am frustratingly led to a "metaworry" of sorts (Metaworry – APA Dictionary of Psychology, n.d.), transcending the layers of my vignettes, codas and summative commentary around how my thoughts on countering the neoliberal zeitgeist through small acts of resistance within my sphere of influence are at best futile but at worst illusionary and might in fact unintentionally reinforce the status quo. Wrenn again helpfully describes how:

counterculture is at once commodified and mollified... Individuals ... are thus **persuaded and lulled** into making decisions without understanding the deeper layer of neoliberalism wherein corporate institutions attempt to exert influence on those decisions. Individuals are socialised into believing that their social context consists in the reified institutions of democracy, freedom and individual independence... Individuals exercise superficially authentic, i.e. superficially self-referential agency within this contrived institutional context. (Wrenn, 2015, p. 1238, my emphasis)

As depressing as this all sounds, I do feel this also reflects the necessity of such a deep and extensive process of my autoethnographic inquiry for making sense of my situation; it is only through the sustained and problematic process of reflection, articulation and analysis that I have been able to develop my perception, articulating my "position and part of the surrounding structure" (Wrenn 2015, p. 1232) and to attempt to become more conscious of where my agency has been reframed in this context.

Notably, the anger and frustration which comes to a head in this the penultimate vignette of Chapter 13 seems to stem from realising my powerlessness in the face of coercion, being manipulated into the "maintenance" (Wrenn, 2015, p. 1235) of the structures of neoliberalism that I have seen to be so detrimental to the values I hold dear as an educator. Viewing teacher education as a privileged and potentially powerful space for nurturing future generations of teachers and, by proxy, countless school-pupils and thus future citizens, it is even more worrying how one might unintentionally be militating against a view of education which "develop(s) in students the ability to question the status quo to create better processes and functions within society. Realization of this democratic ideal requires that individuals perceive the mutability of themselves and their realities" (Jenlink, 2016, p. 167, citing Dewey, 1938). It follows that for Dewey's vision of democratic education to be viable would require a clear and unobstructed perception of the hidden/underlying and superficial/visible realms depicted in Wrenn's view of neoliberalism (2015, above). While I find Wrenn's model to be a fitting structure which aligns well with my thinking so far, as described by Bacevic (2018) below I am also mindful of the layered complexity of attempting to think critically about such issues when I have already identified how deeply engrained neoliberal frames of reference and reasoning have become to my approaches to sense-making and storytelling, thus

muddying my understanding and expression of a defined boundary between Wrenn's "layers" and the immanent relevance of my positioning:

Academic critique of neoliberalism has no problem with thinking about governing rationalities, exploitation of workers in Chinese factories, or VC's salaries: practices that it perceives as outside of itself, or in which it can conceive of itself as an object. But it faces serious problems when it comes to thinking of itself as a subject, and even more, acting in this context, as this – at least according to its own standards – means reflecting on all the practices that make it 'complicit' in exactly what it aims to expunge, or criticize. (Bacevic, 2018, para. 12)

It is Bacevic's highlighting of "acting in this context" (Bacevic, 2018, para. 12) that I feel to be most relevant since my actions, writings and even aspects of my sense-making are aligned with neoliberal principles and priorities while also attempting to problematise and critique the very same. A central thread of concern throughout my writings has therefore been how my actions might be read as being unintentionally complicit with the neoliberal principles that I find so overtly deleterious, the distortion of what I hope to be education in the broadest possible terms – whether as a learner, teacher or teacher educator – into actions which may be unintentionally harmful or indoctrinatory in nature. It is only through lengthy introspection and the tools afforded by my analytical bricolage that the facets of such subterfuge, seeming to pervade my life history and the world I have depicted, gradually come into focus.

Thread 6: A preponderance with critical thinking and statistical literacy

As one of my initial motivations for pursuing this line of study, I have been keen to revisit how I situate and reflect on my personal and professional interests in critical statistical literacy through the chapters of my bricolage. Moving into the penultimate thread of my analysis, the breadth and depth to which the reductive quantification of performance seems to permeate my vignettes and my more recent thinking (Thread 5) leads me to consider the emergence of my educational interests in statistics and critical thinking as being in tension with various context-specific manifestations of variegated neoliberalism (Brenner et al., 2010) while also facilitating forms of resistance.

• Chapter 5: In contrast to my mostly performance-oriented narration of my educational experiences to this point and elsewhere later, here I begin to reflect on the study and use of statistics as more intrinsically interesting and a potentially "powerful" way of asserting knowledge about the world, constructing a naïve yet aspirational image of the professional statistician as someone who can speak with

authority to disparate and important-sounding fields of inquiry. Statistics is also identified as a substantially distinct academic discipline to that of mathematics, leading to some conflicting, counterintuitive thoughts. I describe my rejection of the relative safety of mathematical sub-disciplines I felt most likely to achieve highly in for subject-matter which seemed more interesting.

- Chapter 8: Exploring how my continued interest in statistics leads me to expand my pre-university teaching in the subject, the narrative shifts between positive and negative framings of my awareness and strategic exploitation of neoliberal managerial priorities at my institution. Despite claiming a personal and substantive interest in educating others in statistics as a subject of intellectual and practical value, the narrative depicts my disappointment at realising that the central mechanism for enabling my teaching opportunities were the improved examination grade outcomes for the cohorts I taught alongside my willingness to undertake unpaid developmental work to design the course. The analytical coda frames this as a move from illusional agency of earlier chapters towards a principled, pragmatic navigation of neoliberal surroundings (A. Moore, 2005) as I come to understand my position within them.
- Chapter 9: One of the more dramatic and emotive vignettes of my life writing does not directly address the matter of statistical literacy in the text, but there are a couple of crucial links. First, the principled pragmatism of my provision of a preuniversity statistics course sits in stark contrast to the characterisation of others acting in much more selfish, mercenary ways when under the pressure of institutional performance management. Further, my analytical coda identifies the positioning of unquestionable quantitative metrics – the average test scores which triggered a devastating series of performance management mechanisms – as giving rise to conflicting thoughts around my continued reliance on such measures of success, despite promoting the legitimacy of critical engagement with statistical results as an integral part of my teaching.
- Chapter 12: In this vignette, and as a further example of narrative othering, I reflect on the nature of statistics as a field of study and why, in my experience and storying thereof, it seems to be underappreciated or disliked by some teachers. In dialogue with participants in an early iteration of my research, my analysis identifies increasingly clear "salient ethos effects" (Altes, 2014, p. 62) emerging

from my definitions of critical, statistical thinkers and the construction of selfascribed values in the narrative. The analytical coda continues this thread of thought by querying and reinforcing my assumptions around the ubiquity of statistical information, the notional expectations of the national curriculum and my fears that the contemporary spaces of teaching and teacher education – particularly the threads of organisational management and individual agency raised in my earlier threads – might be counterproductive in addressing these issues. This aspect of discussion continues into the vignettes and analysis in Chapter 13 but with the broader remit of knowledge narratives, discussed in the final thread below.

As an area of specialism in my academic and professional endeavours, my thoughts on statistics as both a field of study and as an epistemological practice has gradually evolved alongside my broader work around teaching and teacher education. An examination of my work in statistics as a discipline has lain somewhat in the background to most of my analyses, a relatively incidental player amongst what have otherwise been my broader concerns about learning, teachers and teaching. As alluded to in my previous chapters, I have sometimes found it difficult to move beyond an instrumental adherence to curricula in statistics which can become quite algorithmic and technical in nature, particularly when implied or mandated by accredited programmes of study (e.g. Assessment and Qualifications Alliance, 2012), and even a clear conceptualisation of my position on the possibilities of how one might learn or need to use statistical evidence seems to emerge and shift slowly over time.

As Schield concisely defines, "statistical literacy is a basic skill: the ability to think critically about arguments using statistics as evidence" (Schield, 1999, p. 15). However, my experiences as an educator have also caused me to consider the potential for statistical literacy to become an epistemological practice or "doing epistemology" (Désautels et al., 2002, p. 244) where the aforementioned critical thought demands a degree of philosophical questioning around the nature and purpose of knowledge-based argumentation directly alongside the technical, mathematical processes underpinning statistical measures. As Desautels, Fleury and Garrison surmise from their study of science learners in Italy: "doing epistemology makes these students sensitive to the artificial and artefactual character of what is being taught to them and question this type

of education" (Désautels et al., 2002, p. 246) and thus my inclination towards thinking of statistical literacy as necessitating critical reflection on epistemological issues is quite complementary to my problematisation of educational institutions from within.

Unfortunately, as I have alluded to a few times through my experiences as a learner, teacher and teacher-of-teachers, the use of statistical algorithms have also become the predominant mode of assessment and therefore teaching of the subject, undermining the potential for developing a heightened awareness of epistemological implications. That statistics has been my specialist subject as an educator leads it to become a site in which I have become acutely aware of moments of personal, emotional and moral tension. I notice where my personal beliefs around what might be most educational for my learners (or myself) become misaligned with what tends to be easily or frequently assessed and therefore the means of meeting all-powerful and ever-present benchmarks for performance, an issue captured neatly again by Keltchermans:

Issues and dilemmas in teaching that look moral at first sight often hide questions about power and interests. Who benefits from what I/we as a teacher/teachers do? In whose interests are we working? Who is actually determining the what? – and why? – questions in our work?... Power and interests are words that still carry a strong taboo for many teachers and teacher educators... Discussions about values, goals and teaching procedures can, in fact, carry a strong political agenda that is sometimes disguised as technical or moral. (Kelchtermans, 2013, pp. 395–396)

In line with my previous discussions, I continue to find Kelchtermans' suggestions to be quite fitting not only for the way that they align with my concerns around how aspects of neoliberal governance can become obscured from view and rendered beyond legitimate criticism, but also for how my specialist discipline notionally calls for the nurturing of skills and dispositions which run directly counter to such a paradigm:

The ability to think critically, for example **questioning claims**, and to use proportional reasoning mathematical skills are important for high levels of statistical literacy... For students, learning **to communicate their understanding and concerns**, for example by **writing letters to newspaper editors, government officials, or company bosses**, is an important aspect of critical statistical literacy as required for adults... it is important to note subtle differences in the goals of statistical literacy and the goals of the school curriculum. (Watson & Callingham, 2004, pp. 133–135, my emphasis)

Such definitions imbue statistical literacy not only with qualities of a critical and sceptical disposition but also principles of social justice and political activism, strongly implying that those who are proficient in such competencies should also be inclined to speak against unintentionally misleading or deliberately deceptive use of statistical evidence.

However, before I explore the implications of such a conceptualisation it is worth noting how my position has gradually shifted over time and may be read as another problematic consequence of my navigating of work and learning in the neoliberal context.

From the earliest chapters of this thesis, I depict my evolving thoughts on the possibilities of statistics not only as a professional field of activity but as a mode of public and personal knowledge-generation of an inherently factual, apolitical and trustworthy nature. As a young learner I naively thought of statistics as merely my preferred branch of mathematics, strongly influenced by the relative ease of my performance in the requisite examinations and fitting neatly with a predominantly didactic, utilitarian view of learning. As I began to navigate my years as an undergraduate student and into my professional work as a teacher however, my view of the field became slightly more muddled between a reductive conceptualisation of statistics as an set of easily achievable curricular goals and slightly more substantive interests in the field and what it might mean to be a statistician: "I learnt that by using statistics it is possible to make authoritative claims about any field of interest, **empowering** indeed" (Chapter 5). This is my first, subtle and somewhat superficial mention of thinking around the nature of statistical evidence and the agentive power that may follow, implying a naively realist view of knowledge which would not be challenged until much later. Pierce and Chick (2011) suggest that such a confused, shifting view of statistics and related priorities as a learner and teacher of the subject are not uncommon "What counts as 'statistics' in the school curriculum varies widely, from simple data representation ... to beginning inference... There are some who believe that pre-secondary data representation work should not be called statistics at all" (Pierce & Chick, 2011, p. 152). Learning about inferential techniques strikes me as a good example of where my post-secondary studies, beginning to touch on the applications of statistics to medical science, sociology, finance and other disciplines, started to build an image of statistics as a way of holding a credible and authoritative voice, having the power to make reasoned, coherent and legitimate assertions about disparate and interesting fields of study. While I would not begin to engage authentically with formal research until many years later, the naïve image of the statistician as a respected, knowledgeable source of valid and trustworthy evidence persists into my initial choices for this research thesis; statistical evidence can pass the test – figuratively or literally – in any context I might think (and subsequently write)

about, a notion that would come into stark conflict with my later professional roles, of course.

Returning to the present, my preferred models of statistical literacy emerging from the extant literature (e.g. Wild & Pfannkuch, 1999; Ben-Zvi & Garfield, 2004; Gal, 2004; Wilder, 2009; Carter et al., 2011) somewhat complement my desire to counter the coercive, deceptive character of the educational institutions at the forefront of my concern. A preponderance with questioning of established assertions of knowledge therefore arises as a unifying concept across my spheres of activity and foci for my writings: "Critical Thinking and Critical Pedagogy... [both] invoke[e] the term 'critical' as a valued educational goal: urging teachers to help students become more sceptical toward commonly accepted truisms. Each says, in its own way, 'Do not let yourself be deceived'" (Burbules & Berk, 1999, p. 45). In light of the previous threads of analysis then, all-too-often I feel there is a frustratingly inadequate treatment of the truisms of contemporary educational policy and practice, professional standards rhetoric, mandated curricula and other stalwarts of contemporary, western education systems (Tuck, 2013; Torrance, 2017; Holloway & Brass, 2018) that I depict as demanding conformity as a learner and educator in action and in thought. The potential for Watson and Callingham's statistically literate learners or teachers to "write letters... to government officials... to communicate their understandings and concerns" (Watson & Callingham, 2004, p. 135, above) presumably would not extend to raising concerns about the validity of the quantitative instruments used to appraise teaching practitioners, the school system or to gauge the abilities of individual learners (Kelchtermans' "taboo", as discussed earlier). Dimella's recent doctoral thesis, "Teaching Statistics with a Critical Pedagogy" (2019) seems to unintentionally capture the contradiction-in-terms that I find so problematic. His work is ostensibly interested in critical pedagogy in-line with many of the principles I have previously discussed (Giroux, 2011), specifically applied to the teaching of statistics:

By implementing a critical pedagogy, we move away from teaching for a low-level of functional mathematical literacy to a more meaningful learning experience that allows students "to examine the systems and institutions that are in place and to use mathematics to evaluate and critique these systems and institutions as well as develop individual and social agency". (Dimella, 2019, p. 88, quoting Leonard et al., 2010, p. 262)

I am in agreement with Dimella in principle but am then struck by the jarring wording of Dimella's first research question: "Does implementing a critical pedagogy increase student success? Student success is defined as completing the course with a C or higher" (Dimella, 2019, p. 6). I am therefore drawn sharply back to the previous threads of analysis and how easily ostensibly positive, critical goals for an educator can unintentionally become so aligned with the dominant structures of schooling (reductive and damaging forms of ability testing, in this case) which seemingly evade critique. Dimella's choice of terminology is also quite striking, prompting me to further-consider the implicit, unintended limits and consequences to their reasoning. Their aim of implementing critical "pedagogy" rather critical "thinking" (Dimella, 2019, p. 6) – the latter being a term that I have seen more frequently used in the aforementioned literature around statistical literacy – seems well-intentioned, calling on authors such as Giroux and Kincheloe as I have done, but is ultimately undermined by reducing the outcomes of such a programme of study to test-performance as the primary indicator of a student's achievements. Shpeizer (2008) offers a useful overview of the distinction between the terms critical thinking and critical pedagogy which highlights what I feel to be the missing potentiality of Dimella's work, simultaneously capturing a key point of conflict that has rendered statistical literacy so illustrative of my broader concerns so far:

The major difference between the two schools lies in the opposition between the sociopolitical and moral orientation of the critical pedagogy school and the ostensible neutrality of the critical thinking school... epistemology is inseparable from politics, and no truly critical approach can exist without awareness of the power relations and structural inequalities in society, and particularly in capitalistic societies. The proponents of critical thinking see this approach as dangerous, and even contra-critical, since prima facie it makes some uncertain assumptions about society, and thus leads us astray from the objective truth-seeking path desired by and for the critical thinker. (Shpeizer, 2018, p. 43, citing Freire, 1993; Giroux, 2000)

First, my analysis so far repeatedly raises concerns over the interplay between personal and professional dilemmas which are typically characterised as moral or ethical in nature and the background political contexts of the contemporary systems of neoliberal governance they are situated within. While I will return to some of the specific instances and implications of quantitative reasoning in the next thread of my analysis, here I am most concerned with how my conceptualisation of critical statistical literacy seems inherently incompatible with some of the ways that I have learned and used statistics in my educational experience.

The neoliberal governance of education ultimately silences dissenting voices, positioning any anti-normative sentiment as "taboo", in Kelchtermans' terms (2013, p.

396). In the case of statistics as a taught subject at schools and at universities, the norm is to treat the study of statistics as nothing more than a branch of mathematics, excised of any potential challenging centres of power as proposed by critical pedagogues. My concerns have also been mirrored more broadly by contemporary events nationally and internationally: Schostak and Goodson reference instances of high-profile political upheaval as prominent, recent examples which capture the deceptive, manipulative relationship between politics and knowledge underlying the threads of my discussion so far:

Debates and the democratic idea of 'the public' and 'the will of the public' have become manipulated and undermined through deception, lies and disregard for 'truth' and 'validity' in the production of 'facts' and 'evidence'... the Trump and Brexit campaigns were not the first to deploy the arts of deception, nor will they be the last. (Schostak & Goodson, 2019, p. 3)

In both cases, statistical statements were found to have been utilised in deliberately misleading ways to further the respective political campaigns (Iacobucci, 2018; Löfflmann, 2019; Nyhan et al., 2019) both of which being ultimately successful in achieving their goals. Closer to my own sphere of activity as an educator, as recently as August 2020, careless use of statistical algorithms to generate predicted A-level grades for school-leavers during the Coronavirus pandemic highlighted how damaging and questionable data-driven quantitative reasoning can be. In this instance, the Royal Statistical Society Vice President for Education and Statistical Literacy raised concerns well in advance about the inadequacy of the proposed methodology for assigning grades to students who would no longer be sitting their examinations (Witherspoon, 2020) but with a depressing inevitability governing authority outweighed critical reasoning. It was not until after the controversial and unequally distributed detrimental effects of the grading system became apparent nationally that the governments of the United Kingdom reversed their plans and utilised teacher-judgment rather than faceless algorithms (Hubble & Bolton, 2020).

At this stage I feel it worth restating my view that statistical literacy as an authentic practice – beyond just a body of knowledge to be acquired and assessed – depends upon the freedom to develop and exercise an epistemological position of one's own, possibly in conflict with conventional wisdoms or the predominant institutional or governmental modes of sense-making. To be a teacher of such ideas amounts to what de Oliveira Souza et al describe as "creative insubordination... in this case, to be statisticians capable of

interrogating issues through a socially critical lens" (2020, p. 77). This is of course not only a strong statement about the nature of statistical literacy but also about the purpose of teaching to such an end and, by implication, what teacher of such ideas might be expected or allowed to practice. Sadly, attempts to establish a firmer foothold and a more sustained space for critical pedagogies are all-too-often closed down by a confluence of neoliberal tropes of precarious employment, forced entrepreneurship and marketisation of education (Brunila et al., 2020):

Statistical methods might be simply dismissed as scientifically useless, but inoffensive amusement of the type of chess or crossword puzzles, if it were not for the social harm it is actually inflicting. Firmly entrenched in institutions of higher education and even more so in institutions of research, it exercises a highly undesirable influence upon the younger generation of students in sociology and neighboring fields. This influence consists in substituting tabulating technique for intellectual method, and thus eliminating theoretic thinking from the process of scientific research. (Znaniecki, 1934, p. 234 as quoted by Reinharz, 1984, p. 128)

It seems therefore that I am not alone in my consternation with the seeming perpetuity of such problematic conceptualisations and misleading use of quantitative evidence in the public sphere. I am again intrigued by my own constant and overriding deference to such measures, similarly presented as an inevitable surrender despite years of seemingly conflicted thought on the matter, creeping in to my ways of making sense of educational issues despite my rhetoric to the contrary. I am also drawn to how this space for reflection might also speak to knowledge practices at play surrounding my role as a teacher educator: "the dynamic interplay between people, practices, knowledge resources and educational arrangements as well as to how connections to work and the epistemic machinery are made" (Nerland, 2018, p. 242). I therefore turn my attention to the onto-epistemic implications of the systemic education-critique taboo that seems to have emerged from my writings so far.

Thread 7: Hermeneutical injustice and educational spaces of harm to self and knowledge

In this final thread of analysis, I reflect on the presence of knowledge-related narratives and practices across my bricolage, and the notion of hermeneutical injustice. These are issues which came to a head in the penultimate vignette at the beginning of this chapter, indicative of not only of a culmination of frustrations from the various negatively framed experiences in my vignettes (Threads 1, 2) but also from feeling quite intimidated by the irreducibly complex landscape of actors and contexts that I sought to understand

in my research. While I will return to evaluate and reflect on the outcomes of my research process in the concluding chapter of my thesis (Chapter 14), this thread of analysis again draws on methodologically reflexive and substantive dimensions of my inquiry, considering how possibilities for giving voice to my lived experiences of neoliberalism seem to be undermined by the very experiences and processes that I hope to articulate, and which have necessitated the sustained and multi-layered research process of my doctoral study.

- Chapter 9: As with earlier threads of my concluding discussion, the emotive provocation of this traumatic chapter serves as a trigger in my analytical coda for reflecting on matters which I place beyond and beneath the text itself. I depict troubling thoughts arising from the role of statistical and observational evidence purported to assess teacher quality, frustratingly reductive yet powerfully and centrally positioned within regimes of accountability. This creates a conflictual thread of reflection, where my vignettes and analyses clearly demonstrate my learning of, and adherence to, such systems, yet they simultaneously work to legitimise only limited, preferential forms of evidence about the world particularly quantitative forcefully precluding any form of critical engagement, alternative epistemological positions, human-moral dimensions of teaching, and any forms of non-compliant resistance this may bring.
- Chapters 10 and 11: I continue the thread of reflection above but now projecting my concerns onto dimensions of teacher education and my stereotypical characterisations of student teachers. Discourses of standardisation and associated systems of audit and accountability along such lines are raised in my analytical coda as evident throughout my life writings, with some modes of expression reminiscent of neoliberal rhetoric raised in the extant research literature. Crucially, it becomes apparent that my preceding threads of discussion strongly imply an approach to the acquisition, worth and operationalisation of restricted forms of knowledge aligned with the neoliberal paradigm. I appeal to alternative forms of knowing what it means to be a good teacher, such as a moralethical and critically reflective dimensions of pedagogy, pondering the necessary epistemological freedoms required to realise such a vision.

- Chapters 11 and 12: In my later vignettes, I become cross and frustrated by practitioner-stereotypes which deny the complexity of teaching, such as structural constraints which might limit practitioners to didactic and reductive approaches to schooling, or those who might accept or demand the provision algorithmic pedagogical strategies rather than crafting bespoke and individualised and research-informed approaches of their own. The stereotyping and generalised assumptions of my writings are raised in my analysis as narrative silencing (B. M. Atkinson, 2012, p. 80) thus demanding the inclusion of counter-perspectives from my focus group participants.
- Chapters 12 and 13: In these concluding sections I begin to foreground statistical knowledge as a key area of intersection between my personal learning and professional experiences, and where I notice freedoms to adopt alternative epistemological positions being differentially enforced in professional, personal and academic spheres of activity. I present my view of authentic critical statistical literacy as a noble but constrained possibility, even in my own life; I may aspire to be able to establish a personal, epistemically modest view on the meaning of quantitative evidence, and nurture others to do the same, but ultimately my storying is centred on acting and living only on those measures and interpretations which are dictated within the accountability structures of contemporary education, regardless of highly emotive protestations to the contrary.

My depiction of troubling, conflicting reflections across the aforementioned chapters reaches something of a climax in the concluding sentences of this most recent vignette, punctuated as ever by repeated refrains of despondency and a sense of futility in the face of what are described as insurmountable, constraining demands. Much of my concern is directed towards the educational institutions that I have was born into then, in later life, have actively worked to be a part of, entities which are positioned in my writings as exercising total and unquestionable control over my endeavours to such an extent as to render any alternative thoughts or approaches as unacceptable, thus aligning with a Marxist-Gramscian definition of hegemony: the "predominance… by one group within a society or milieu, or by a particular set of social or cultural ideas, ways of doing things… to the exclusion of others" ('Hegemony, n.', n.d.). That my narrativisation depicts a disorienting but persistent inculcation of neoliberal thinking throughout the chapters of my life draws me also to Hall's explanation that:

hegemony is a tricky concept and provokes muddled thinking. No project achieves a position of permanent 'hegemony'. It is a process, not a state of being. No victories are final. Hegemony has constantly to be 'worked on', maintained, renewed and revised. (S. Hall, 2011, p. 727)

And indeed, I feel the nature of my thesis writings to this point are a personal testament to the feeling that my perception of a hegemonic mission of neoliberalism is what I have been struggling to make sense of and articulate, how "it" (or rather, narratively I) have been working for what seems to be my entire life realise and reinforce a master narrative of marketisation (Holloway & Brass, 2018; Loh & Hu, 2014; Martinez-Saenz & Schoonover, 2014; Tolofari, 2005), and how this feels as though it is something more than a static or passive entity within or underlying my writings and experience.

Each of my vignettes identifies forces, messages, incidents, influences, constraints which are positioned as repeatedly, persistently corralling my thoughts and actions into what may be desirable within a neoliberal framing. It seems of little coincidence then that my writings place the origins of such powerfully formative influence consistently, throughout my life, as educational spaces of some kind – schools, specialist institutes, universities – with the outcomes of my involvement in such spaces being problematised as an ideological indoctrination rather than personal and intellectual growth despite my repeated references to "learning" within the neoliberal system: "uncritical ideological inculcation is indoctrination, not education" (Alexander, 2005, p. 1, citing Snook, 1972). Drawing the preceding threads together, my concerns turn to my depiction of a neoliberal educational context which hinders the growth of my own "epistemic confidence … the self-relation of individuals concerning their capacity as 'knowers' of the world" (Zamora, 2017, p. 302) and how my evolving beliefs in this area have been intertwined with my years of work as a teacher and teacher educator.

Denial of liberatory potentialities in education

My central line of argument in this thread arises from my narrative depiction of relentless formative inputs which reinforce actions and thoughts aligned with neoliberal ideology while seeming to mitigate the possibility of realising other alternatives. Using this conceptualisation of constraining rather than liberatory educational practices as a prompt for reflection, I am drawn to the words of Gwaravanda and their vision that: education should be liberating instead of enslaving. This means that all processes linked to education such as research, teaching, and learning must free the mind. Freeing the mind entails thinking in diverse positions that involve criticism and evaluation without any blinkers, whether imposed or acquired. (Gwaravanda, 2019, sec. 3)

Gwaravanda, above, speaking of the dominance of western epistemologies in African universities, is one of the many voices advocating for the preservation of a true and unfettered academic space for debate and critique as a central hallmark of emancipatory education, across levels of educational provision as I have explored in my writings. My narratives and threads of analysis therefore depict moments of imposition or acquisition of the "blinkers" (Gwaravanda, 2019, sec. 3, above) that I have come to see as undermining the possibilities of educational spaces, an apt metaphor, I feel.

Reflecting further on these issues provokes another point of reflection on the greater purpose of my thesis overall: I feel as though I have been struggling to communicate feelings of injustice and frustration arising from my societal and professional situation, but that "a collective hermeneutical lacuna is preventing [me] from rendering [my] experience communicatively intelligible" (Fricker, 2007, p. 157) for the lack of a singular, coherent label for the ideas emerging from my autoethnographic bricolage of analyses. Further still, I have already noted my concerns about how easily my hopes might be misconstrued as self-serving rather than authentic and scholarly. As Fricker continues: "misfit interpretations that trivialize [my experience] in different ways" (Fricker, 2007, p. 157) such as the thought that setting my own "standards for success" might be seen as a mechanism of self-defence rather than an indomitable right or a justifiable criticism of the neoliberal status quo.

Onto-epistemological coercion through fear, hermeneutic injustice

Jenlink (2016) argues, much like Gwaravanda (2019) above, and as I would, that good teaching and teachers should embrace a Deweyan, democratic view of education contingent on a Freireian critical pedagogy (Jenlink, 2016, citing Dewey, 1916 and Freire, 1972). I feel that my vignettes, again culminating in the penultimate piece heading this chapter, therefore speak to the difficulties I have found in trying to comprehend and strive towards the freedoms espoused by the aforementioned authors while being bound to the epistemic shaping of my professional and educational contexts. In the context of teacher education, for example, Ylöstalo depicts a "hegemonic and exclusionary regime of truth" (2020, p. 262) in which, as Bacevic summarises: "neoliberalism becomes itself a form of knowledge. With the rise of surveillance capitalism, governance is inextricable from epistemology: ways of knowing literally become ways of governing. Neoliberalism, thus, has turned into an epistemic subject" (2019, p. 384, citing Gane, 2014, 2015). I am therefore minded that my troubled questioning of personal agency and my lengthy journey of uncertainty in discovering fulfilment as an educator is substantively a problem of epistemology: my ability to embrace and live by alternative modes of knowing, and by consequence, freedom to interpret the various forms of information – empirical, experiential or otherwise – present in the contexts which I have depicted throughout my life story. However, I can again return to my narrative as indicative of important formative influences, such as those described by Holloway and Brass (2018) who argue that discourses of neoliberal performativity profoundly influence teachers' fundamental beliefs about the nature of good teaching and associated acceptable forms of knowing, finding that for their teacher-participants:

a performativity discourse had become the onto-epistemic framework by and through which teachers could understand and conduct themselves. The language, calculations, and knowledge that were once 'out there' in the standards and testing apparatus could become the 'inner' knowledge that structured their fields of possible thought and action and, thus, their sense of themselves as subjects, or actors. (Holloway & Brass, 2018, p. 378)

As I have explored previously, and intersecting with my subject interests in statistics, I have come to view such performance-related metrics as simplistic, reductive and harmful for their denial of the complexity and human dimensions of pedagogy (Jenlink, 2016). I have depicted repeated challenges to interpret my experiences in ways that are not inherently aligned with neoliberalism, a phenomenon described by Giladi, using Fricker's term (2007), as hermeneutical injustice: "the specific ways in which cognitive resources for interpreting one's experiences are maldistributed in accordance with the background unequal power relations governing identities" (Giladi, 2018, p. 141).

In a similar vein to Watts' querying of neoliberal affects or affects caused by neoliberalism (2022), Beeby critiques the detail of Fricker's definition and prompts my own reflection in querying what might be considered epistemic injustice per se and what instead might be "an injustice that has epistemic implications" (Beeby, 2011, p. 483). By drawing a distinction between these two possibilities, if I consider my stories to be documenting moments and strands of hermeneutical injustice then I need to go further than simply considering them to be accounts of social and professional circumstances in which I identify difficulties in making an injustice intelligible. Instead, Beeby's

reformulation of hermeneutical injustice would assume that those in controlling power – the managers, the educational institutions, those in governance – suffer from the same lack of interpretive vocabulary for identifying and articulating the forceful and amoral constraints on epistemology so central to my concerns: "This allows us to see the breadth of damage done by epistemic injustice: both the powerful and less powerful people are epistemically compromised by distortions and deficits in the communal resource" (Beeby, 2011, p. 485).

In my own spheres of activity, I have focused on the language and teaching of statistical literacy as a resource for speaking against neoliberal norms by problematising the centrality of numerical measurement as a dominant epistemological device, yet it is the enactment of my thinking from such efforts which remains constrained and therefore within the frame of hermeneutical injustice, as Crerar describes:

There is another way in which a conceptual framework can be deemed hermeneutically inadequate. Even if one possesses the terms and understandings with which to name an area of their experience, these terms and understandings can be rendered unfit-forpurpose if they carry with them overtly negative connotations... [an] inability to use these concepts in significant communicative contexts (Crerar, 2016, p. 203)

Indeed, as evidenced by the previous chapters of this thesis, I have found a plentiful selection of theoretical framings and complementary arguments to support strands of my analysis, constituting at least some "terms and understandings with which to name" (Crear, above) themes emerging from my stories, but the potential pathways of action or thought are met with extremely negative affective dimensions to my narrative. This problematic experience of narration is in alignment with a further dimension of Beeby's analysis of Fricker's definition of hermeneutical injustice, that "hermeneutical injustice does not occur until the individual makes a doomed attempt to render her experience intelligible" (Beeby, 2011, p. 481). I am therefore brought full circle to the beginning of my inquiry, and how the very form of my thesis research, my use of bricolage, nontraditional elements or structure of writing such as the inclusion of narrative vignettes, have given rise to such a degree of fear of legitimacy. I have learned a great deal from my process of writing and analysing my life in this thesis, yet I cannot escape feelings that through the framing of neoliberal reason that has become so entrenched into my life story, this very study would fall short of what will be accepted, listened to and certainly acted upon in positions of power. I am therefore led to acknowledge one final act of hermeneutical injustice, that:

there is more to our collective hermeneutical resources than the words and concepts we use. Specifically, we require access to an expressively free environment in which to put these concepts to work: an open and receptive social context in which a particular experience that individuals or groups have a significant interest in coming to understand can be discussed in hermeneutically conducive ways. If discussion of a particular patch of one's social experience is systematically met with awkward or hostile reactions and the imposition of social costs, then the intelligibility of this experience will almost inevitably be stymied. (Crerar, 2016, p. 203)

Within Crerar's bleak depiction, for once I am keen to illuminate more hopeful possibilities and the purposeful response of my own research. As I progress to the last chapter of my thesis, I will contemplate my contribution to knowledge and the potential to identify and even facilitate spaces for less constrained critical, pedagogical and epistemological reflection.

Chapter 14: My thesis

Introduction

I begin my final chapter with my shortest vignette, positioned more as an epigraph to the chapter and "provoker" for my thoughts (Törrönen, 2002, p. 343) rather than the more substantial pieces informing my learning. This was the final vignette that I wrote prior to conducting my process of analysis, just a brief moment of reflection on the stories I had written about my life before embarking on the next stage of my research journey.

Vignette XII: Addendum, many different chapters, the same story

In a moment of curiosity about my academic goals and achievements from schooling, I decided to peruse my Record of Achievement, a binder of documents summarising all the key moments where my life of learning and working had been crystallised as a line of text on headed paper. I thumbed through the GCSEs (General Certificates of Secondary Education), GCE A-levels (General Certificate of Education, Advanced-Level)⁵, my bachelor's and master's degrees, seeing the product of my life's efforts distilled down to just a few pieces of paper.



Figure 4: The product of a lifetime in education on four pieces of paper

Introducing my little portfolio of credentials, I noticed a neatly handwritten comment that had, for over two decades, been completely irrelevant to my life:

I have learned how to represent numerical information in a number of ways, such as graphs, tables and diagrams in subjects such as Geography, Maths and the sciences. I can use all these methods accurately, neatly and effectively. ("Personal Statement" as part of my National Record of Achievement, 4th April, 2001)

I found the appearance of these three subject-areas in particular – "Geography, Maths and the sciences" – along with my note on the transcendental value of statistical skills to be a striking

⁵ Common pre-university qualifications in the England, as discussed in Chapter 1

rediscovery. I wrote these passages over half-a-lifetime ago, approaching the end of my time in compulsory education, as part of my "personal statement". I had written a summary of my skills in my own words, a narrative depiction of my academic experiences presented in a manner that I hoped would be recognised by the reader as valuable in some way.

Who my imagined reader might have been, and what I understood to be "valuable" at the time is lost to me. Indeed, who the *author* was seems like a distant memory and yet, in spite of all that has changed over the course of my lifetime, this short passage captures so much of what has remained constant.

Contribution to knowledge I: storying neoliberal subjectification

Arriving at this chapter after many years of reflection and writing, I continue to find myself conflicted over the centrality of reductive, quantitative assessment measures running throughout my narrativisation of experiences in education, a component of my storying which has a tendency to preclude even the imagination of authentically critical pedagogical opportunities (e.g. Anderson, 2016; Ball, 2012; Giroux, 2011). The forms of neoliberalism imbued within the rationality of my vignettes and my commentary throughout the thesis reflect facets of subjectification learned and reinforced through the various formative experiences depicted (Chowdhury, 2022; P. Moore & Robinson, 2016), despite the often troubling or conflicting timbre of the writing. In the previous chapter, I recognise the chronological progression and deep inter-relatedness of threads of neoliberalism woven throughout the preceding chapters of my bricolage.

My personal statement (at the start of Vignette XII) was a striking piece to rediscover as I concluded my writing of vignettes, a small yet performative piece of life writing in itself (Stanley, 2010) that I had created several decades ago. So much time has passed from the original creation of the statement that, in addition to my claims of academic competence, my mention of the potentiality of transdisciplinary applications of statistical methods strikes me as an intriguing coincidence, a striking juxtaposition of phrasing between my present self and that of a very different character some thirty years prior, rather than the voice of the same author. The illustration of my certified educational achievements (Figure 4) sits in a complementary way as a caricature of reductive, outcomes-oriented visions of education, the persistence of which across my lifetime starting to become apparent as I wrote my vignettes. This momentary reflection also brings into sharp focus the sheer timespan of my research interests: the stories brought to mind by even my earliest reflections have led to threads which seem to have evolved and operated across decades of my life. As I conclude my research, I have therefore come to appreciate the form of my thesis and the seven threads of my analysis as **irreducible**, capturing at least some – though not all – of the facets of complexity which crystallise as a representation of my life story of neoliberalism.

In response to my core research questions (Chapter 3) I argue that, collectively, my threads of analysis (Chapter 13) illustrate the functioning of neoliberal subjectification over the course of my life as storied in my vignettes, recognising the paradoxical nature of such an unending, unrealisable project of total subjectivity (S. Hall, 2011) within a framing of geographically, politically and historically shifting variegated neoliberalism (Brenner et al., 2010). My research therefore seeks to directly disrupt neoliberalism as a hegemonic rationality (G. Williams et al., 2020) by recognising the evolution of such processes through my life story as giving rise to a hermeneutical injustice (Fricker, 2007): the undermining of my ability to develop a self-referential understanding of such matters by relentlessly reasserting neoliberal performativity as the gateway to so many of my life's successes (Curtis, 2013).

Individually, each of the substantive chapters of my thesis (Chapters 3 to 13) identify aspects of my vignettes which appear to reflect contexts and characteristics of governance, performativity, responsibilisation and accountability in alignment with neoliberal ideology (e.g. Dutta & Basu, 2018; Foster, 2017a; Nordbäck et al., 2022; Peck, 2010b; Rath, 2018). Each analysis draws on a range of extant literature to situate my own perspective alongside a plurality of other voices in their respective fields, helping me to incorporate a critical reflective dimension into my commentaries within and beyond chapters, recognising the growth of my personal interpretive framings into my analytical codas, and across the layers of my research narrative in a self-referential manner (Baert, 1998).

Before moving into a summary of my points of methodological learning and further contributions from my thesis, I will now evaluate my study in relation to some of the prominent methodological texts that I have used to situate and guide my approach to research.

Evaluating my autoethnographic bricolage of narratives and analyses

It has been my intention to produce a piece of research appealing to an audience who is sensitive to qualitative, autoethnographic social inquiry. Therefore, recognising the epistemic positioning of my work, I return to one of the key pieces I used for methodological inspiration at the start of my writing, the work of Adams et al. (2015), who outline six features of autoethnography which capture the key strands of my research succinctly as follows:

- "Foreground personal experience in research and writing" (T. E. Adams et al., 2015, p. 26). Beyond the obvious nature of my introspective vignettes, I am positioned at the foreground of my analytical codas and reflective narrative across the thesis. I use emotive writings, fictional characterisations and detailed insights into my life as the core of my researching process.
- "Illustrate sense-making processes" (T. E. Adams et al., 2015, p. 27). Indeed, I have taken the view that my writings and analyses constitute important practices of sense-making related to my sense of self, wellbeing, rationality and my understandings and experiences of the problematic notion of neoliberal subjectification (Petersen, 2008; Zembylas, 2022).
- 3. "Use and show reflexivity" (T. E. Adams et al., 2015, p. 29). Though it was my intention from the genesis of this study through to its conclusion to be mindful of my potentially shifting position and understandings as I progressed through my research, the extent to which this has become another prominent signifier of my substantive interests in neoliberalised thinking again addresses this central element of Adams et al.'s definition of autoethnography.
- 4. "Illustrate insider knowledge of a cultural phenomenon/experience" (T. E. Adams et al., 2015, p. 31). The specific focus of my vignettes has been to reflect on my experiences from within a variety of educational contexts. Further still, and in a reflexive manner as above, I also remain mindful of the educative act of my research alongside my continuing role as an educator, helping me to frame my work accordingly to present what I claim to be an insider's perspective.
- 5. "Describe and critique cultural norms, experiences and practices" (T. E. Adams et al., 2015, p. 32). The subject-focus of my inquiry as established in my literature review has been depicted as transcending contexts, from situated norms within

professions of education (e.g. Iannucci & MacPhail, 2019; Noonan & Coral, 2015; Postlethwaite & Haggarty, 2012b; Rath, 2018) to what may be described as cultural, political and social zeitgeists (e.g. Curtis, 2013).

6. "Seek responses from audiences" (T. E. Adams et al., 2015, p. 34). From the start, and throughout, I speak directly to my audience and share my thoughts in what are intended to be emotive, evocative terms. I appeal to my audience's sensibilities to resonate with the concerns I have presented, to see the reason and reference for my argumentation, and to perhaps invite my reader to be troubled as I am with the nature of the affective upsets, sites of marginalised thought and action, and constrained potentials for fulfilling visions of education that I have depicted.

I am therefore satisfied that my work addresses the key affordances of autoethnographic study, and having previously explained my conceptualisation and experimental use of theoretical bricolage across the thesis (Kincheloe, 2005; Kincheloe, Hayes, et al., 2011; Kincheloe & Berry, 2004; McSweeney & Faust, 2019). Le Roux, drawing on an analysis of research articles and discussions with contemporary autoethnographers, similarly proposes five "markers for excellence in autoethnographic studies" (2017, p. 204). The first four of their suggestions – appreciation of "subjectivity", "self reflexivity", "resonance" and "credibility" (2017, p. 204) – are very much aligned with Adams et al.'s checklist above. However, the fifth and final suggestion from Le Roux is of particular relevance for my concluding chapter: "Contribution" (2017, p. 204). I am therefore prompted to reflect beyond my core research questions to recognise further points of learning arising from my autoethnographic study and my thoughts on possible directions for future inquiry.

Contribution to knowledge II: bricolage and crystallisation

For those researching neoliberalism in education

Contemplating the product of almost a decade of study leading up to the presentation of this thesis, I have found the combination of crystallisation as an epistemological guide (Ellingson, 2009, 2014) and bricolage as a structural model (Kincheloe, 2005; Kincheloe & Berry, 2004) to be extremely helpful and powerful tools for researching the complex affective-discursive spaces of the vignettes spanning my lifetime (Bochner, 2016; Eisenbach, 2016; Ellis et al., 2011; Hoppes, 2014; S. A. Hughes & Pennington, 2017). These methodological frameworks have served to allow the growth

of my research process in a way which feels authentically representative of my learning. As introduce at the start of my thesis (Chapter 1), this research emerged from reading about and contemplating the presence of neoliberalism across a disparate multitude of contexts, mostly related to education, but all of them seeming to speak to aspects of my own experiences in some way. Furthermore, these resonant yet diverse readings prompted my reflection on occurrences from across my lifetime, where differing positions and contexts seemed to lend themselves to perhaps momentary and situated but nonetheless informative points for comparison, and personal histories, if not origins, for my more contemporary concerns. My bricolage of vignettes and analyses has therefore been extremely effective for drawing out threads across my life story, identifying how consistent, cumulative or evolving ideas have arisen which are aligned with a variegated conceptualisation of neoliberalism (Brenner et al., 2010). These threads of learning develop across my depiction of several decades of life throughout various levels and types of educational activity, while recognising and accounting for how I have written of my experiences from a contemporary authorial perspective (Bochner, 2016; Egan, 2011; Ellis, 2009). As noted earlier, the bricolage of first-level analyses helps to demonstrate how the emergence of traits which can be seen as neoliberal – applying the term in a descriptive capacity - and the reinforcement of matters of hermeneutical injustice, seem to be robust across the variety of theoretical frames, supporting my use of bricolage as a way of intentionally exploring the possibility of thematic consistency through the application of multiple frameworks for analysis (Ellingson, 2014; Jackson, 2013; Kincheloe & Berry, 2004; Le Roux, 2017).

As noted earlier, one of the challenges posed by Watts (2022) for researchers exploring contemporary experiences of neoliberalism is to be more precise and empirically guided in purporting to identify sites or mechanisms of neoliberal subjectification. In this study, I have turned to a plurality of educational research literature and the affordances of bricolage to explore how my autobiographical narratives seem to be representative of neoliberal ideological principles by examining affectivediscursive aspects of my writing, depictions of interaction with educational contexts, and characterisations of self and others which have been most prominent in my experiences as a learner and professional educator. My vignettes and analytical codas speak to the difficult middle-ground between governance and educational structures which form the context of my writings, recognising them as just a small part of the variegated neoliberal landscape extending beyond local and national contexts (Brenner et al., 2010). Nevertheless, my research sheds light on the processes by which my mindset seems to have become inculcated in such principles to such an extent that I see and story myself as being subject to them (Caduri, n.d.; Chowdhury, 2022; Kelchtermans, 2013; Leyton, 2022; Valero et al., 2019). It is within my narrativisation that I may initially conflate self and surroundings in way that speaks to Watts' (2022) concerns, and perhaps not in a way that directly counters them. Rather, I find myself responding to Bryne's (2017) parallel line of questioning – as explored briefly in my literature review (Chapter 2) – that my vignettes, analyses and my research narrative are spaces where my experience of neoliberal subjectification can be constructed and seen to function, therefore allowing sight and analysis of facets of my reasoning which would otherwise be extremely difficult to disentangle and articulate (Baert, 1998; A. J. Grant & Zeeman, 2012; Hoppes, 2014; Kelchtermans, 2013).

Finally, while I am pleased to have been able to draw on methodologies in the truest sense of the bricoleur, utilising a bricolage of analytical frames alongside the principles of autoethnographic inquiry, Ellingson's crystallisation (Barbosa Neves et al., 2023; Ellingson, 2009, 2014) and even a brief nod towards anti-naturalism as a framing for my research (Bevir & Blakely, 2018, 2019). However, each of these methodological terms has a variety of potential routes for further exploration that I would be interested in addressing, such as the use of multiple genres of representation including creative approaches as part of a more diverse bricolage of materials (e.g. Madison, 2023; Tikly, 2015).

For teachers and teacher educators

I am pleased to have been able to tell my multithreaded story of experiences of neoliberalism, and to be able to name some of the affective dimensions of my life which I hope might appeal to other readers who may be moving through similar educational contexts to my own; I would anticipate that my work might be of interest to others in the way that I have found the extant literature so inspiring and reassuring for its close resonance to own experiences (e.g. Clarke & Phelan, 2017; Crerar, 2016; Viggiano, 2019; Warren, 2017; Yuan & Lee, 2016). Where I might be slightly less satisfied, though not surprised, is that my thesis does not entirely resolve my concerns. I continue to I feel that the reduction of all aspects of learners' abilities and teachers' efforts into codified, standardised metrics conversant with a highly neoliberalised higher education context (Ball & Olmedo, 2013; Bunn et al., 2019; Killam, 2023; Zembylas, 2022) will remain impossible to fully reconcile with a critical and, as discussed earlier, statistically literate, epistemically modest approach to education and research (Chapter 13).

As I continue to work with professionals and scholars in the field of Education Studies, I raise the ideas of situated knowledge practices and epistemic humility as worthwhile considerations, and a way of linking researchers' positionality in a profound and personal way to the development of personally meaningful research. I situate the researchers I am working with – often educational practitioners or paraprofessionals – at the confluence of the personal, professional and educational spaces with their own, potentially misaligned, epistemological framings (Figure 5, below):

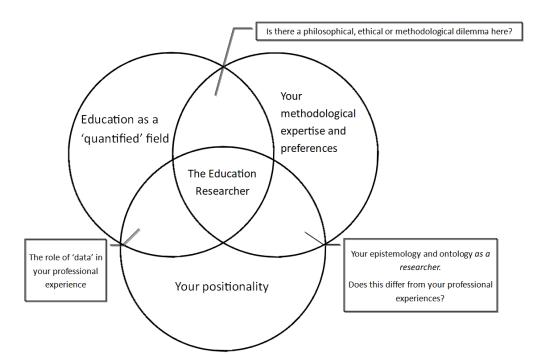


Figure 5: Teaching resource, visualising aspects influencing a practitioner-researchers epistemology in relation to quantitative concepts.

I am therefore drawn back to the confluence of the concerns and disciplines which saw my commencement of doctoral study all those years ago: my professional background as a teacher of numerate subjects – mathematics and statistics – continues to encourage my use of quantification as a vehicle for entering into and navigating the messy and complex assemblages of educational contexts, and the yet more elusive concept of variegated neoliberalism. I feel that my thesis is therefore strongly supportive of the statistical literacy as part of a broader canon of critical thinking skills (Koga, 2022) transcending the levels of education that I have been fortunate enough to experience and to document in my stories, and which has provided me not only a vocabulary but a supportive community of scholars (e.g. Collesi, 2019; de Oliveira Souza et al., 2020; Koga, 2022; Watson & Smith, 2022; Weiland, 2017; Weiland & Sundrani, 2022) which I have found so helpful for making sense of my own position.

My hopes and directions for future research

Since my earliest attempts at scholarship on the topic of statistics education, I have noted the concerns of several authors on a severe deficit of time, resource and motivation to enhance the development of statistical literacy development in schools (Lahmar, 2012, 2013, 2014, 2015) that I sadly see reappearing in the contemporary literature a decade later (e.g. Collesi, 2019; J. Watson & Smith, 2022; Weiland & Sundrani, 2022). However, I have noted that the generally negative valence of my vignettes has silenced what are otherwise supportive voices of concern from others around me, such as my student teachers as they navigate similar experiences to my own. From the perspective of teacher educator, I am therefore constantly exposed to dilemmas that I feel remain unresolved in myself yet I am compelled to provide what support I can. Such purposeful problematisation is captured neatly in one of the extracts from my original empirical fieldwork as part of the previous iteration of my doctoral research. Speaking with a science student teacher about the possibilities of undertaking realistic and extensive data collection, following a practise lesson measuring masses on springs as an experimental exploration of Hooke's Law, they explained:

I think, in science, you've got sort of ... a positive and negative with [teaching statistical skills]. I thought, when we did that little session, we did Hooke's Law with masses and springs, if you're trying to teach Hooke's Law then you could, you know, whizz that off probably in a lesson, just teach that alone [without using real data and statistical methods], but you don't have to do that, do you? ... When you're trying to teach, what are you trying to teach? (Science Student Teacher, 2016)

My initial, somewhat superficial reading of this exchange was that this was yet another disappointing reminder of the limited curriculum time and other contextual constraints which can undermine the possibilities of the critical education paradigm (Clemitshaw, 2013; N. Davies et al., 2012; Giroux, 2011, 2020). The student seems to question what is realistically required of a science lesson as dictated by the curriculum and contemplates the possibility of reducing this down to a minimal, highly efficient coverage of concepts

rather than taking an experimental, investigative approach with real data. However, after spending time examining the subtexts of my own writings and the difficulties in giving voice to counter-hegemonic thoughts, I am instead drawn to the element I have emboldened in the quote above, that questioning is still present and that the answer remains open, as captured in the indeterminate conclusion to the students' musings.

Following this more optimistic and constructive line of thought, I have also contemplated how my storying has not been able to capture any specific moment of origin for many of my concerns, such as the genesis of my understandings related to educational performance and the primacy of quantified achievement measures which seem to be established by the time depicted in my earliest vignettes. I wonder therefore about the potential for reinforcing a degree of epistemic modesty around the purported meaning of educational assessments (Beckstein, 2020; Christensen, 2021) at the very earliest stages of education for learners and teachers alike, recognising that the "'datafication' of early years pedagogy" (Roberts-Holmes, 2015, p. 302) may constitute a profound influence on learners' epistemological perspectives.

Finally, I end my thesis by expressing my commitment to the possibilities of autoethnographic inquiry as a distinctly powerful enterprise despite substantial epistemological and technical differences to my previous work as a statistician. I have come to appreciate the legitimate and profound learning to be drawn from my troubled but analytical introspection, and that this has allowed me to understand how deeply my personal, ideological and professional experiences have become so intertwined. Kelchtermans' words once more capture the confluence of thoughts arising from my years of practice and research as I draw my reflections to a close:

Finding oneself confronted with opinions and practices that differ from or even contradict one's own opinions and deeply held beliefs... can be very discomforting. Yet without these discomforting experiences, deep reflection – in which the content of one's personal interpretative framework is thoroughly challenged and questioned – will far less often be triggered. And without deep reflection, one's personal scholarship cannot be developed, nor the scholarship of teaching in general (as a publicly reviewed set of knowledge to build on). In order to achieve this, teacher education as well as in-service training need to provide spaces to engage in discomforting dialogues. (Kelchtermans, 2013, p. 397)

I am comforted that this thesis – the culmination of many chapters of my life up to the present – has bearing on my more recent position as a university teacher and teachereducator. The troubling exploration of my experiences as retold through my vignettes and analyses has indeed created a space for "deep reflection" in a manner quite reminiscent of the "discomforting dialogues" I might have with learners and practitioners, creating a space to help them to navigate their own often-difficult reflective journeys through a life in education, neoliberal or otherwise.

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Appendix 1: Ethics application

Application 052646

Date application started:		Section A: Applicant details		
Wed 29 March 2023 at 13:02				
First name:				
Jamal				
Last name:				
Lahmar				
Email:				
Programme name: PhD in Education				
Module name:				
PhD in Education				
Last updated: 22/06/2023				
Department:				
School of Education				
Applying as: Postgraduate research				
Research project title: Living, learning and teaching neoliberalism: an auto	oethnographic bricolage			
Has your research project undergone academic re Yes	view, in accordance with the appropriate process?			
Similar applications: Original project approved in 2015 (#006405). Now	significantly redesigned.			
tion B: Basic information				
Supervisor				
ame	Email			
Proposed project duration				
rt date (of data collection): n 29 May 2023				
icipated end date (of project) 31 August 2024				

Project code - not entered -Suitability Takes place outside UK? No Involves NHS? No Health and/or social care human-interventional study? No ESRC funded? No Likely to lead to publication in a peer-reviewed journal? Yes Led by another UK institution? No Involves human tissue? No Clinical trial or a medical device study? No Involves social care services provided by a local authority? No Is social care research requiring review via the University Research Ethics Procedure No Involves adults who lack the capacity to consent? No

Indicators of risk

Involves potentially vulnerable participants? No Involves potentially highly sensitive topics? No

Section C: Summary of research

1. Aims & Objectives

This autoethnographic study centres on my experiences of learning and working within what I broadly characterise as a neoliberal education system, from the 1990s (as a school pupil) to the late 2010s (as a teacher and teacher-educator) in England.

The central objective of the project is to reflect on how I have learned to understand and frame my experiences through a lens of neoliberal ideology despite efforts and assertions to the contrary. Analyses also incorporate a purposefully methodologically reflective element, contemplating the development of my vignettes and approach to narrative expression as a potentially self-defensive, confessional or otherwise cathartic response to troubling, conflicting experiences. The research concludes with a summative consideration of common threads throughout my analyses and how the emergence of neoliberal ideological concerns and implications seems to be robust under a range of frames of analysis when applied to my autobiographical narrative.

2. Methodology

The base of data for this thesis is a series of autobiographical narrative vignettes, written by the researcher, with each one followed by a reflective re-reading and analysis with reference to a variety of theoretical frames such as socialisation as a professional teacher (e.g.

Lacey, 1977), empowering forms of knowledge (e.g. Foucault & Gordon, 1980; Ainsworth & Hardy, 2012) and power relationships within communities of practice in education (e.g. Wenger, 1999).

Across the vignettes, I present a personal account of critical incidents from my experiences of learning and teaching of my specialist subjects - Mathematics and Statistics.

In the first phase of writing and analysis, the vignettes may include some reference to specific characters or settings, anonymised through the use of pseudonyms and efforts to limit identifiable traits (e.g. locales, gender, types of educational setting). These initial versions of vignettes are to only be seen by the researcher and supervising staff, and form the basis for the analyses described above. They may therefore contain elements which could be deemed unsuitable for open publication. For example, characteristics of individuals or settings depicted in the initial phase of writing may allow them to become recognisable but are otherwise necessary for retaining the authenticity and purpose of the writings. This is of particular importance given the topic of inquiry, positioning myself as researcher as a potentially "subaltern autoethnographer" (Hughes and Pennington, 2017) where altering my writings immediately to avoid writing negatively of settings or characters would undermine the possibility of reflecting on positions of marginalisation, oppression or otherwise difficult-to-explore experiences of relevance.

However, placing "relational ethics" as a key matter of consideration "throughout the research and writing process" (Ellis et al. 2011), further revisions to vignettes will be made post-analysis to mitigate the possibility that individuals or settings may become identifiable later in the write-up of the thesis. Such alterations will be declared and explained as part of the thesis itself in general terms (so as not to undermine the process of alteration/re-writing) and will predominantly involve "fictionalisation", replacing potentially identifiable settings or characters with composite cases or alternative devices with the aim of presenting the core elements of tone and content to the reader while recognising that the final vignettes are not intended to be a true account of actual experiences.

3. Personal Safety

Have you completed your departmental risk assessment procedures, if appropriate?

Not applicable

Raises personal safety issues?

Yes

No risks to personal safety or physical well-being are anticipated.

However, one key concern is that of researcher mental wellbeing, and the personal, challenging nature of the writings and reflective process being undertaken. The process of altering writings as described above is important to avoid undermining my existing, ongoing and future professional relationships, speaking as they do of the types of settings and activities that I continue to be involved with.

Section D: About the participants

1. Potential Participants

I am the only "participant" actively contributing data to this project - writing the series of autobiographical narrative vignettes - about my own experiences as a learner and educator.

2. Recruiting Potential Participants

N/A

2.1. Advertising methods

Will the study be advertised using the volunteer lists for staff or students maintained by IT Services? No

- not entered -

3. Consent

Will informed consent be obtained from the participants? (i.e. the proposed process) No

As the occurences being documented are what I have deemed to be "critical incidents" in my educational experience, the examples I use to illustrate my recollections are sometimes framed in quite negative or judgmental terms. This is a key element of my reflective process and of the analysis of how I constructed my narrative. I therefore assume that individuals or organisations that I have decided to write about (referred to in section 6 as "others who may be affected by the research activities" rather than participants) would be unlikely to offer their consent to be represented in the way that is necessary for my analysis.

4. Payment

Will financial/in kind payments be offered to participants? No

5. Potential Harm to Participants

What is the potential for physical and/or psychological harm/distress to the participants?

I am the central "participant" in this study (and my main considerations for others who may be affected by this study can be found in section 6, below), writing about my personal experiences and actions, reflecting on my understandings and perspective as a learner and practitioner in Education. As such, while I do not anticipate any potential for physical harm there is potential for reputational harm and related psychological distress when engaging with matters of personal experience, belief and identity.

As noted in section C: "one key concern is that of researcher mental wellbeing, and the personal, challenging nature of the writings and reflective process being undertaken."

How will this be managed to ensure appropriate protection and well-being of the participants?

As noted in section C: "The process of altering writings as described above is important to avoid undermining my existing, ongoing and future professional relationships, sometimes speaking as they do of the types of settings and activities that I continue to be involved with." This may involve reinforcing and emphasising the "fictionalised" elements of writings that appear in my thesis, utilising my analytical commentary as a guiding device and explaining where my approach has taken the potential for present or future psychological or reputational harm/distress into account.

6. Potential harm to others who may be affected by the research activities

Which other people, if any, may be affected by the research activities, beyond the participants and the research team?

The initial writing of vignettes may include reference to anonymised learners, teachers and educational settings from my personal and professional experiences - thought not active "participants" in this study, these other parties may "appear to feel they have no real choice on whether or not to participate" and may therefore be considered to be potentially vulnerable others.

What is the potential for harm to these people?

The first version of my recollections may be read as negative, judgemental and perhaps seen as derogatory, insulting or otherwise cause personal-emotional or reputational harm. Similarly, such risks are present in writings about myself and my own direction as a learner and educator, and I will reflect on and note where my mitigation strategies might also be supportive of self-care in the research process.

How will this be managed to ensure appropriate safeguarding of these people?

As noted in my methodology, a process of robust anonymisation and fictionalisation will be used to prevent any individuals or settings from becoming identifable. The introspective focus of my work is also made clear throughout the thesis, framing the creation and presentation of vignettes to reassure the reader that the purpose of my analysis is not to offend or to judge others but to reflect on my own lived experiences. As described in the methology section of this application, a phased approach to writing, analysis and re-presentation will be used to render the vignettes suitable for inclusion in the final thesis.

7. Reporting of safeguarding concerns or incidents

What arrangements will be in place for participants, and any other people external to the University who are involved in, or affected by, the research, to enable reporting of incidents or concerns?

No element of the research process is being made avaiable/visible to anyone outside the supervisory or assessment team until the submission of my thesis.

Who will be the Designated Safeguarding Contact(s)?

This would be via the publicly available contacts on the university web site.

How will reported incidents or concerns be handled and escalated?

This would be via the publicly available contacts on the university web site.

Section E: About the data

1. Data Processing

Will you be processing (i.e. collecting, recording, storing, or otherwise using) personal data as part of this project? (Personal data is any information relating to an identifiable living person).

No

Please outline how your data will be managed and stored securely, in line with good practice and relevant funder requirements

My autoethnographic writings will be stored in a password-protected encrypted archive on my multi-factor secured university google drive space. All research data will be destroyed on completion of the study (successful completion of the thesis and viva, or August 2024, whichever occurs first). No research data will be retained, or submitted to ORDA or any other repository - as introspective, personal

writings it is not anticipated that these would be useful or appropriate for other researchers' analyses. Anonymised writings will be shared by email with doctoral supervisors for feedback and review where necessary but never shared beyond the supervisory team. See the attached data management plan (section F) for further details.

All versions

Section F: Supporting documentation

Information & Consent

Participant information sheets relevant to project? No

Consent forms relevant to project? No

Additional Documentation

Document 1121058 (Version 1) Data Managment Plan (as discussed in section E)

External Documentation

I have also refereced DMP resources, following supervisory guidance, here: [redacted] management/planning

Section G: Declaration

Signed by: Jamal Lahmar Date signed: Mon 1 May 2023 at 15:43

Appendix 2: Ethics approval letter (current)

Jamal Lahmar Registration number: 140151446 School of Education Programme: PhD in Education

Dear Jamal

PROJECT TITLE: Living, learning and teaching neoliberalism: an autoethnographic bricolage **APPLICATION:** Reference Number 052646

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 22/06/2023 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

• University research ethics application form 052646 (form submission date: 01/05/2023); (expected project end date: 31/08/2024).

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

Ethics Administrator School of Education

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy _____
- The project must abide by the University's Good Research & Innovation Practices Policy:
- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
- The researcher must comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

Appendix 3: Project information document (previous, concluded project)

PhD Research Project

Inter-related Factors in Pre-Service Teachers' Knowledge, Beliefs and Motivation to

Teach Statistical Literacy. (Working Title)

You are being invited to take part in a research project. Before you decide if you wish to participate it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask me if there is anything that is not clear or if you would like more information. Please take some time to decide whether or not you wish to take part.

Thank you for taking the time to read this information.

1. What is the project's purpose?

The purpose of this project is to understand how student teachers construct their beliefs and skills in teaching statistical literacy. I am particularly interested in comparing how teachers of the sciences, Geography and Mathematics learn to be statistically literate and how this relates to their perceptions, knowledge and motivation around the teaching of such skills.

2. Why have I been chosen?

You have been chosen for one of the following reasons: a) you may need to interpret statistics in the future, b) you may need to teach someone how to understand statistics in the future, or c) you are currently involved in the learning or teaching of statistics.

3. Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep (and be asked to sign a consent form) and you can still withdraw at any time without it affecting any benefits that you are entitled to in any way. You do not have to give a reason if you do not wish to take part.

4. What will happen to me if I take part? What do I have to do?

This research project consists of several activities, you may be asked to participate in one or more of the following:

Interviews: You, or your students/pupils, may be requested to be interviewed to discuss experiences, attitudes and beliefs about the teaching of statistical concepts and literacy. This is intended to take no longer than 15-20 minutes of your time. You will not be expected to travel or incur any costs. Your interview will be audio-recorded and you may request further details of the questions to be asked in advance. You will be expected to answer questions honestly, but you may refrain from answering any or all questions as you see fit. You may also ask the interviewer questions if desired. Excerpts from your interview may be quoted (anonymously).

Focus Groups: You may be requested to be part of a focus-group with other participants to discuss your experiences, attitudes and beliefs about the teaching and learning of statistical concepts and literacy. This is intended to take no longer than 20-25 minutes of your time. You will not be expected to travel or incur any costs. Your focus-group will be audio-recorded and you may request further details of the questions to be asked in advance. You will be expected to participate in the group-discussion that takes place but may withdraw from the session at any time. You may also ask questions of the researcher if desired. Excerpts from your focus-group may be quoted (anonymously). Following participation in the focus-group you may be contacted for a follow-up interview (see above).

Questionnaires: You, or your students/pupils, may be requested to complete a questionnaire to assess your understanding, attitudes and beliefs about statistical concepts and literacy. This is intended to take no longer than 5-10 minutes of your time, you will not be expected to travel or incur any costs. Questionnaire activities are expected to be administered online, if a return is requested by post then a stamped addressed envelope will be provided. Comments from your questionnaire may be quoted (anonymously). Following the results of your questionnaire you may be contacted for a follow-up interview (see above).

Observation of teaching activities: As part of this study you may be asked to be observed teaching lessons involving statistics and your classes may be provided with questionnaires to complete (see above). Observations (including video or audio recording) will only be conducted with the consent of yourself, your line-manager/tutor and that of the host-school. The number and nature of lessons observed will be negotiated and agreed with all consenting parties - you may withdraw your consent at any time. You will not be expected to incur any expenses, nor undertake work outside your normal teaching/training requirements, but you may have suggestions for resources or teaching ideas provided by the researcher.

5. What are the possible disadvantages and risks of taking part?

It is not expected that there will be any risks or disadvantages of taking part. You may however be asked to discuss your views and attitudes towards aspects of education, or reflect on your own practice. At no point is this research intending to be judgemental or infer any preference in teaching methods; it is hoped that participation will not lead to any offense, feelings of insecurity or questioning of professionalism of a particular individual's or institution's practice.

5. What are the possible benefits of taking part?

Depending on the activities you are involved with, there are may be no immediate benefits for those people participating in the project, it is hoped that all of this work will inform the future development of teachers of statistics.

If you take part in the online questionnaire phase of the study and provide a contact email address, feedback on statistical content questions will be provided to help you reflect on and develop your understanding of these concepts.

It is also hoped that participants in focus-groups or teaching activities devised for this study may find the content of interest and of some use for their own development.

6. What happens if the research study stops earlier than expected?

If the research study stops earlier than expected you will be informed of when and why this has occurred. You will still have the option to withdraw consent for your data to be used.

7. What if something goes wrong?

If you wish to make a complaint, or withdraw your consent for participation in the study you can contact the researcher (Mr Jamal Lahmar) in the first instance.

If you have any further concerns arising, such as your treatment by the principal researcher or something serious occurring during or following your participation in the project, you can contact the project supervisor (Professor).

If your complaint has not been handled to your satisfaction you can also contact the University of Somewhere Registrar and Secretary

7. Will my taking part in this project be kept confidential?

All the information that we collect about you during the course of the research will be kept strictly confidential. You will not be able to be identified in any reports or publications.

8. What will happen to the results of the research project?

These results will form part of my PhD study and some of my findings may be published in academic journals. Some of the data from this project may also be useful for subsequent research in this area.

9. Who is organising and funding the research?

This doctoral study is being funded by the University of Somewhere, School of Education. I am the sole researcher in this project and am being supervised by Professor.

10. Who has ethically reviewed the project?

This project has been ethically approved by a panel of reviewers at the University of Somewhere, School of Education. The University's Research Ethics Committee (U-REC) monitors the application and delivery of the University's Ethics Review Procedure across the University.

11. Will I be audio-recorded, and how will the recorded media be used?

The only audio-recordings conducted will be of interviews and focus-group activities; you will be informed if you are to be audio-recorded.

The audio recordings of your activities made during this research will be used only for analysis and for illustration in my thesis, conference presentations or lectures. No other use will be made of them without your written permission, and no one outside the project will be allowed access to the original recordings. On conclusion of this research study, the original audio recordings will be destroyed.

12. Contact for further information



Thank you for your time

Appendix 4: Ethics approval letter (previous, concluded project)

Downloaded: 09/07/2023 Approved: 23/12/2015

Jamal Lahmar Registration number: 140151446 School of Education Programme: PhD in Education

Dear Jamal

PROJECT TITLE: Inter-related Factors in Pre-Service Teachers' Knowledge, Beliefs and Motivation to Teach Statistical Literacy APPLICATION: Reference Number 006405

On behalf of the University ethics reviewers who reviewed your project, I am pleased to inform you that on 23/12/2015 the above-named project was **approved** on ethics grounds, on the basis that you will adhere to the following documentation that you submitted for ethics review:

- University research ethics application form 006405 (form submission date: 22/10/2015); (expected project end date: 30/08/2018).
- Participant information sheet 1012450 version 1 (30/09/2015).
- Participant consent form 1012452 version 1 (30/09/2015).
- Participant consent form 1012451 version 1 (30/09/2015)

If during the course of the project you need to deviate significantly from the above-approved documentation please inform me since written approval will be required.

Your responsibilities in delivering this research project are set out at the end of this letter.

Yours sincerely

Ethics Administrator School of Education

Please note the following responsibilities of the researcher in delivering the research project:

- The project must abide by the University's Research Ethics Policy
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- The researcher must inform their supervisor (in the case of a student) or Ethics Administrator (in the case of a member of staff) of any significant changes to the project or the approved documentation.
- The researcher must comply with the requirements of the law and relevant guidelines relating to security and confidentiality of personal data.
- The researcher is responsible for effectively managing the data collected both during and after the end of the project in line with best practice, and any relevant legislative, regulatory or contractual requirements.

Appendix 5: Data management plan

Data management plan

Submitted as part of University of Somewhere PGR ethics application #052646

Jamal Lahmar, 01/05/2023. Based on ESRC DMP template v5

Information on new data

Data for this project consist of approximately 10-15 life history writings (henceforth "autoethnographic vignettes" or "AVs"). These data are written from the researchers' perspective, recounting experiences from their personal, educational and professional experience and therefore make occasional reference to other characters and contexts. Any such references are anonymised on the creation of the AVs so at no point will any of the data contain specific personal identifiers such as names or locations.

The data will be subsequently processed (following stages of analysis) to remove, fictionalise or otherwise modify the writings to reduce the identifiability of other parties and to otherwise reduce the risk of harm to the researcher or others.

All AV data are created and stored electronically in MS Word. AVs will initially be approximately 1000 words each, so anticipating a total of approximately 15000 words. Further iterations of the writings as described above will be added to the dataset accordingly.

MANAGEMENT, Backup and security of data

This data management plan has been developed in alignment with The University of Somewhere Policy.

All AVs data are contained in word documents (.docx) and are saved in a single encrypted archive file on The University Google Drive space (also multi-factor password protected) for the duration of the project. Relevant passwords are only known to the researcher themselves.

Separate word documents within the archive will be used to retain different iterations of the writings, with filenames including a description and the date of creation or last edit.

Difficulties in data sharing and measures to overcome these

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The data for this project are created and controlled by the researcher. As a non-funded PGR study based on writings created by the researcher themselves, these data will not be shared for reuse with any other parties. Please note that, in alignment with good research practice policy at this university, it is not intended that the final thesis will be embargoed but that the originating data for the study will not be made available on the basis of ethical sensitivity.

Extracts of data will be shared with research supervisors and examiners on request for only for the purposes of their respective roles. As noted elsewhere, no AVs contain specific personal identifiers nor other aspects of writing which would allow individuals to become identifiable to the supervisors or examiners.

Consent, anonymisation and strategies to enable further re-use of data

As described earlier, AVs will not contain any personal information (names of individuals or locations that may reveal the identity of characters in the vignettes) however they may include features that may render some individuals potentially identifiable.

Consent is not sought from these other parties due to the typically personal and critical natures of the issues being discussed. Instead, as described in the ethics application for this project, a process of iterative analysis, fictionalization and rewriting of the AVs data will be applied to minimise the possibility of identifiability and to reduce the potential for harm to the researcher and others.

Copies of AVs will be retained in the master archive for the project until the date of completion (as listed on ethics application #052646) when the archive will be deleted.

Copyright and intellectual property ownership

I will be the sole owner of the copyright on newly created data - autoethnographic vignettes - for this research project.

Responsibilities

As a research project undertaken for PhD study, the "data controller" for this study will be The University of Somewhere. I (the researcher) will be responsible for data creation, management and destruction on completion of the project.

Preparation of data for sharing and archiving

No data will be shared or archived on conclusion on the project.